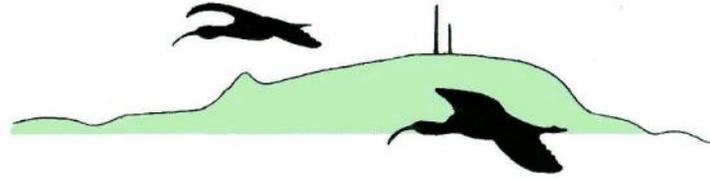


ORANGE FIELD NATURALIST AND CONSERVATION SOCIETY Inc



NEWSLETTER JULY 2020

Impact of COVID 19

OFNCS talks, meetings and excursions have been cancelled indefinitely.

We'll be guided by government regulations and are conscious of the risk profile of a number of members.

Newsletter – the newsletter will still be produced. If you have something interesting to share please email to:
orangefieldnats@gmail.com

Facebook – Jenny Pratten would also like photos and items for Facebook. Please email Jenny at gopratto2014@gmail.com

Once again people have generously sent information for the newsletter and others have paid their membership. Thanks!

Committee News: It was a quiet time until a few weeks ago. Water was on the agenda with OFNCS submitting objections to the raising of the dam wall at Wyangala and construction of the Macquarie River Re-regulator. Both aim to increase the storage of general security water to the detriment of river health and the internationally recognised wetlands that are downstream. A submission was also made to Orange City Council on their Master Plan for a Health and Innovation Precinct at the Bloomfield site. This submission requested retention of the areas of bushland and protection of the old growth and heritage trees.

Then of most concern was Orange City Council's 2020/21 budget decision to allocate \$500,000 for 'environmental planning and design' of the mountain bike track on Mt Canobolas. ECCO made representations against this and Col Bower was featured in a front-page article in the CWD. Various members have also written letters to the Editor. The Canobolas Conservation Alliance is working on actions to try to prevent such a proposal in the SCA. The Alliance does not object to mountain biking and

suggests such tracks could be developed in the local State Forests.

Orange City Council has also floated the idea of an Orange Rowing Club. This would involve the opening up of rowing on Spring Creek Reservoir to the community not just the Kinross Wolaroi School. Once again Council are putting tourism and expansion before the environment. They seem to see water and natural areas as resources to exploit rather than preserve.

Mt. Canobolas Update

At the time of the 2018 fire the species list for the SCA was around 800. This has increased by almost 100 species and is climbing. Another 2 species were added during June: an orchid and a liverwort.



The heart-shaped leaves of *Acianthus collinus*, the Inland or Hooded Mosquito Orchid (above), were found several months ago. It was a long wait until mid-June to confirm the species when the first flowers opened. Vicki Glover has since found another group. It is well named as the flowers are minute. While this species is

common in forest and woodlands it has not been found within the SCA before.

The other species not seen or identified in the SCA before is a liverwort, *Riccia cartilaginosa*. Hai spotted this on one of his walks and Dick has had it identified. It will feature as the Creature of the Month in August.



*Ice on one of the rocky slopes on Mt Canobolas.
Photo Hai Wu.*

News from National Parks

Steve Woodhall, A/Team Leader Ranger, National Parks and Wildlife Service (NPWS) has provided the following update on the SCA.

Visitation

Visitor numbers in the SCA have been very high recently. The walking tracks were heavily used by people during the Covid 19 restrictions as they exercised locally. The numbers really picked up over Easter and the June long weekend was extremely busy. On the Sunday morning of the long weekend, I counted just over 100 cars in the reserve, 38 at the summit and 45 at the Federal Falls Camping Area, plus others on the road and at the Spring Glade walking track carpark. I've never seen the park this busy before. Easter is normally our busiest time with about 4,000 visitors to the summit, but Jen Dodson, Ranger, has crunched the traffic counter data. The June long weekend was unprecedented. Over those 3 days, we estimate the summit received 6,195 visitors, which is one and a half times the 5-day Easter peak.

Borenore Caves was also extremely busy with an estimated 5,118 visitors which is 25% of the normal annual visitation. It remains to be seen if this is a Covid 19 lockdown induced spike, or the start of a longer-term increased level of visitation.

Pig control

NPWS have been undertaking 3 pig control programs within the SCA in 2019/20. We have trapped and destroyed 18 pigs so far during the current program which is ongoing at this

time. We have recently established two extra traps, checked daily, which increases the coverage of the reserve. Pigs are highly mobile so the distribution of traps around the park increases the chance of capture.

Blackberry control

NPWS has spent over \$60,000 on blackberry control in 2019/20. Approximately \$30,000 was spent on contract ground spraying and another \$30,000 in staff time on ground spraying. We sprayed blackberry in 155 ha of the park. Ground spraying was concentrated on the public roads, management trails, walking tracks and visitor nodes. NPWS crews undertook ground spraying along the Federal Falls, Spring Glade and Nature Trail tracks. We also did some helicopter spraying which was unfortunately cut short to one day because of windy conditions. Aerial spraying was undertaken below the Walls Lookout and on Mount Towac.

A number of native animals have been spotted on cameras including antechinus, brush tail possums and some rats, although we couldn't tell from the photos whether they were native or introduced rats.



Nature Conservation Council
The voice for nature in NSW

Regional Conference, 13th June 2020

Report by Rosemary Stapleton.

The NCC Regional Conference was to be in Orange this year however COVID intervened. Rather than cancelling it NCC took the brave step of hosting it by Zoom. The conference aims to give environmental and conservation groups the opportunity to come together to learn about and share experiences of local environmental action. The theme was Water in Western NSW.

Over 100 people joined and after a welcome we heard from a selection of groups across the state. The main issues were logging, water, mining, and threats to natural areas. Minister Kean provided a recorded talk and Kate Washington, the NSW Labor Spokesperson on the Environment, addressed the conference.

The second session was a panel discussion on Water in Western NSW. Four excellent speakers shared their extensive knowledge, experiences and worries for the future. Badger Bates, a Barkandji elder from the Darling River at Wilcannia, talked of the interconnectedness

of the river, people and the environment. Mel Gray, from Dubbo, shared her knowledge of the complexity of water regulation. She also talked about the plan to divert more Macquarie River water for irrigation at the expense of the Marshes and downstream communities.



The Macquarie Marshes in October 2013 with enough water for threatened Magpie Geese. Will this be seen again? Photo Doug Stapleton.

Shire Councillors Jane McAllister, from Wentworth, and Phil O'Connor, from Brewarrina, showed a great understanding of the importance of the health of the river for the health and life of everyone in their communities. Phil is the person who highlighted the issue of water theft at Bre that led to a 4 Corners program and subsequent investigations. Sadly, all speakers said it was hard to counter the ways of politicians and big business that have a jobs and development focus.

After lunch there were workshops on storytelling, climate and energy, medium density housing, media training, water, and the Gardens of Stone Alliance.

On the Zoom gallery view I saw that OFNCS members Cilla, Nick and Cyril had joined. I asked them to reflect on the conference. Their replies, along with mine are below.

The key messages from the conference were:

- Maintaining, restoring, enhancing, and re-establishing the environment (all inclusive) is most important for our future and all life on the planet.
- The environment is under attack from all angles and there are passionate people trying to protect it from government and developments ... with only occasional success.
- We need to support each other more effectively to realise important

environmental outcomes which are crucial for the environment.

- Water management is the key issue in the Central West and is urgent.

New things learnt were:

- The difference between regulated and unregulated rivers and details of A, B and C class irrigation licences.
- More effective written communication skills through participation in the media workshop.
- The importance of using stories to connect with the community and spread messages by sharing the conversations.
- The existence of valuable resources on urban design such as the NCC's draft Urban Density Policy V7 15 May 2020, www.watersensitivecities.org.au and Urban Design for Regional NSW (State Architect and NSW Planning).

All four of us reflected on our ways of working now and into the future. This involved:

- The need to keep on striving for better outcomes for the environment and knowing you're not alone. This can be done by using the expertise and support of organisations such as the NCC and the environmental network to become better informed on environmental issues that affect us all.
- In addition to networking we should be supporting environmental issues in other places not just locally, such as with water.
- In relation to water the need to be better informed on water management and to be more engaged with the issue via CWEC. Alternatively maintaining and possibly expanding on current work done on water issues was a goal.
- Looking for new angles in telling our stories and putting a human side to them not just a focus on species. This will involve being braver in taking a stance and supporting others.

I asked about disappointments and most were minor and related to the Zoom format (or no food!). Occasionally internet connections were poor, and one or two workshops were not as effective due to the constraints of the format. However, the Zoom chat function worked well allowing people to ask questions and have the answers posted quickly. My disappointment was the politicians. Minister Kean talked about the benefits from recent environmental flows

down the Lachlan River but ignored the probable impact of the raising of the Wyangala Dam wall. Kate, the Labor spokesperson, was unwilling to discuss policy, in particular that on logging of old growth forests in the light of the upcoming Eden-Monaro by-election.

Having the conference online meant that there was a good roll up with many visitors from other parts of NSW and the NCC Executive. However there seemed to be few representatives from the CWEC region. There could also have been more emphasis on this region and its issues. Most of us agreed that this was a great opportunity to hear knowledgeable speakers. You too can hear what people said by looking at the morning and panel sessions online as well as the media workshop at <https://www.nature.org.au/about/governance/regional-conference-2020/>

Some Good News – 30/6/2020

Mel Gray, from Healthy Rivers Dubbo, has just emailed to pass on some good news about the assessment process for the proposed re-regulator on the Macquarie River.

Mel wrote ‘WaterNSW proposed that the dam would not significantly impact threatened species, and that the impact on the Ramsar wetlands and migratory birds would not be significant. Many public submissions disagreed – **AND WE WERE HEARD!** The environmental impact statement **will now** look closely at the impact to Ramsar wetlands and migratory birds!’

This was one of the key points in the OFNCS submission.... so doing it was worthwhile.

The hidden value of Mosquitoes

Dr. Murray Fletcher, suggested that the following article from *Myrmecia* 40(3): 27–28 (July 2004), may be of interest to members. **Myrmecia**, the news bulletin of the Australian Entomological Society, is published quarterly in *Austral Entomology*.

Murray wrote ‘In 2004, the Australian Entomological Society hosted the International Congress of Entomology in Brisbane. The issue of the society’s newsletter, *Myrmecia*, produced just prior to this major event differed from previous issues because it was used to provide profiles of all the research groups working on insects in Australia. This issue was then provided for all 1700+ delegates of the Congress as a summary of current

entomological research in Australia. Most of it was fairly dull reading, being a means of self-promotion for the various universities, departments of agriculture, state museums and, of course, CSIRO.

There was one item that caught my eye. It was from the University of South Australia and I cannot find that it has been published anywhere in the scientific literature so the story in *Myrmecia* might be its only appearance in print.

The Mosquito God of the Australian Heath

Why did God create mosquitoes? A group of Australian heath plants belongs to the family Epacridaceae. They are often prickly obscure little plants that you would normally miss until they flower. Some in South Australia, like Epacris impressa, are showy and brilliant in the spring. Others, like Acrotriche patula, have obscure little flowers that are reminiscent of fictional aliens. When thinking of the pollinators of epacrids, it is easy to assert that birds play a major role. However, a look at the tiny and obscure flowers of some species strongly suggest the involvement of insects. Herein lies a problem. At the time that these species flower (early spring to summer) temperatures are low and insects are not abundant. There is one notable exception, the winter mosquito Ochlerotatus camptorhynchus [now Aedes camptorhynchus - MJF]. This large dark mosquito emerges from its pools in late winter and can be seen along the South Australian coast where it will bite the unprepared winter walker. It seems to prefer water that is slightly salty for its breeding. The winter mosquito is a great wanderer and has been known to move up to 10km from its breeding grounds.



Aedes camptorhynchus (the species in the story). Photo Cameron Webb, Medical Entomology Unit, Westmead Hospital.

All this led Daniel Duval and Michael Kokkinn (University of South Australia) to wonder whether the winter mosquito could be a major pollinator of heath plants. They found a flowering stand of *Leucopogon parviflorus*, set some mosquito traps between the plants, cut off some branches bearing flowers and brought them into the laboratory to observe mosquito behaviour. Observations confirmed that mosquitoes were major consumers of nectar from these plants. There was no doubt that there is a close association between *L. parviflorus* and *A. camptorhynchus*, they might even be the major pollinators. Since mosquitoes can see in the ultraviolet range, *L. parviflorus* flowers were observed under ultraviolet light. Miraculously, the tips of the anthers of each flower shone like welcoming beacons and the bowls glowed golden as if to signal the presence of nectar.

Why did God create mosquitoes? To pollinate the beautiful heaths, of course.

I asked Murray why this article caught his eye and he replied.

‘The reason I found the article about mosquitoes pollinating epacrids interesting was that mosquitoes are best known for their need for blood (females only, note) to mature their eggs and, concomitant with that, their ability to vector pathogens like Ross River virus, malaria, dengue fever, etc etc etc.

Going through *Myrmecia* to create an index, I have been struck with how much effort and money has been spent, particularly in the tropical parts of Australia, to monitor, detect and manage mosquito populations both as adults using traps and as larvae. Imported tyres, illegal fishing boats, and all manner of things can bring adult and larval mosquitoes into Australia. They have mapped the distributions of known vector species of mosquitoes, often using army logistics to get into restricted areas, so they know in advance what parts of Australia are at risk of particular diseases, if there is a case identified in somewhere like Darwin. There was an outbreak of the mosquito vector of dengue fever in Tennant Creek in 2004 which triggered an almost national response to eradicate the species from the area. Detecting it in the first place was due to diligent monitoring of mosquitoes in the NT. The response involved teams from WA, Qld and NT and the outbreak was eradicated - not dissimilar to what is happening internationally with Covid-19. To

find that a mosquito is a significant pollinator of one of our most beloved Australian plant groups is quite fantastic!’

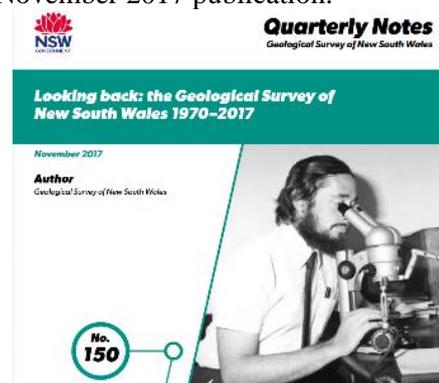
Vale Dr Lawrence (Lawrie) Sherwin
11.10.1944 – 31.5.2020

OFNCS acknowledges the sudden and unexpected passing of a local resident who was an internationally renowned geologist and palaeontologist, yet a very modest man. Lawrie spoke to our Society, and led the related excursions around the Orange district, on at least two occasions (in May 2010 and November 2015). He was always more than happy to share his wealth of knowledge and experience.



Lawrie Sherwin (right) sharing his knowledge with Dick and Jenny Medd at a quarry on Amaroo Road. OFNCS excursion 16/5/2010. Photo Murray Fletcher.

Having worked for the Geological Survey of NSW from 1967 to 2005 as a Palaeontologist and Regional Mapper, he was then appointed as an Honorary Research Associate with the Survey after his retirement. In 1970 he was the author of the first article in the first Quarterly Notes of the Survey, becoming their most published author across the first 150 issues, with a 1974 photo (below) gracing the cover of the November 2017 publication.



As well as his contributions to the Survey's Quarterly Notes, he is acknowledged as a co-author of at least seven of the State's 1:100 000 Geological Maps, and Conference Papers and articles in both Australian and international professional journals.

Our deepest sympathy is extended especially to his wife Katie, and other family and friends.

Dates for your Diary

Plastic Free July – all month you are encouraged to stop or at least reduce your use of plastic during July.... And beyond.

Sightings around Orange

If you see anything interesting, please email orangefieldnats@gmail.com or post it on Facebook. Members have been taking time to head out at this time.

Spiders

Male Red Headed Mouse Spider (*Missulena occatoria*) Emily Winterton reports coming across this spider when walking at Fourth Crossing on Mothers' Days. She said *'the photo below certainly doesn't do justice to his colouring. It was the first time I've come across one and my nieces and nephew were really intrigued by him but thankfully maintained their distance!'*



Orchids

The good season has resulted in many orchid species getting ready for what may be a spectacular spring. At Cargo Common/Quarry there are Greenhood rosettes with little fat buds that Col thinks are probably *Pterostylis mutica*, which will flower in early spring. Also leaves of *Glossodia major*, which is spring flowering. Lots of Greenhood rosettes are out at Conimbla National Park near Cowra.

On Mt Canobolas there are many Greenhood rosettes and an occasional bud, possibly of *Pterostylis nutans* (below) appearing. There are new leaves of *Caladenia fitzgeraldii* and *C. phaeoclavia*, Microtis and what may be Sun and Beard Orchid leaves.



Other Plants

Hai has been out to Killonbutta and found that the *Grevillea floribunda* was flowering. He captured the stunning photo below.



On Mt Canobolas and at Conimbla National Park some of the Acacia species have lots of buds with just a few opening. Other shrubs are also budding up.

'Things with Wings'

The birds are still rather quiet. Those of interest have been:

- **Azure Kingfishers** – Cilla has seen these along Summer Hill Creek, but they were too fast for a photograph.
- **Superb Parrot** – 1 overwintering male seen at Cudal Common.

- **Golden Whistler** pair along Old Canobolas Road.
- **Flame Robin** at The Walls Lookout, Mt Canobolas, a threatened species.
- **Red-browed Treecreepers.** Brian Rosenberg has noticed, and photographed (below), *‘quite a few Red-browed Treecreepers on the mountain recently as well as so many Striated Thornbills.’* He said, *‘I’m guessing we are getting more visitors from the fire zones.’*



And further afield.....

- **Condobolin & Lake Cargelligo.** Vicki and Murray spent a few days birding around the area. Vicki reports they didn't spot the Major Mitchells that had been seen around town but had great views of **White-winged Fairy wrens**. At the lake they saw 100s and 100s of **Great Crested Grebes** but as it was full to the brim it wasn't suitable for waders.
- **Quandialla** – on a non-birding trip 200+ Plumed Whistling Ducks were on 2 dams just to the east of the village. Doug's photo below. It was amazing to see water everywhere with all the roadside drains full.



Creature of the Month

Onion-skin Weathering

Text by Andrew Rawson, photos, R Stapleton.



This is an interesting example of onion-skin weathering on a rock sample found along the western side of Towac Way near the Walls lookout.

Fine grained volcanic rocks, such as basalt, are hard to weather and generally form a thin weathering rind, with a discoloured skin surrounding dark, unweathered rock. Slightly coarser textured material such as this piece (could be dolerite, trachyte or comendite - hard to tell), once exposed at the surface can form these onion rings as a result of freeze-swell processes. It occurs where rainwater is more able to penetrate a certain distance into the rock and expand when frozen, cracking the rock in an alignment matching the surface shape.



The initial rounded shape is an artefact of weathering down joints in the bedrock while still in the ground. This weathered material erodes off as the pieces emerge at the surface over time, leaving a rounded shape. It is common also in granites, forming the familiar rounded tors and stacked boulders common in granite landscapes. These can be seen at the Devils Marbles near Bathurst and on the Monaro. The freeze-thaw processes then start to

