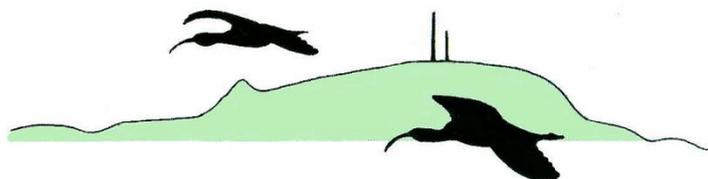


## ORANGE FIELD NATURALIST AND CONSERVATION SOCIETY Inc



NEWSLETTER JULY 2018

### NEXT MEETING

**The July meeting and excursion have been combined with the CWEC Community Forum on Biodiversity on Sunday 8th July. See details below and in attachment.**

### Please Note

Our website is up and running again although it is still under construction.

<http://www.orangefieldnats.com/>

### Next Meeting - Sunday 8th July

The meeting and excursion for July have been combined with a Community Forum on Biodiversity to be held in the Blue Room, Orange City Bowling Club, Warrendine St, on Sunday 8th July from 10am to 4pm.

The morning will feature speakers from the NSW Nature Conservation Council and the Environmental Defenders Office who will outline recent changes to legislation affecting biodiversity.

During the afternoon session, **Dr Col Bower** (Florasearch and Life Member of OFNCS) and **James Williams** (Wiradjuri elder) will present on the environmental and cultural significance of Mt Canobolas. They will be followed by **Roger Lembit** (NPA) on the environmental issues of mountain bike trails and a discussion on how mountain bike trails might be managed on Mt Canobolas to ensure the best outcome for the mountain.

Entry to the Forum is by donation and lunch will be provided for registrants or can be purchased from the Bowling Club for around \$15 (or byo).

To register, contact **Cilla Kinross**:

Phone 6365 7651

Email [ckinross@csu.edu.au](mailto:ckinross@csu.edu.au)

### Last Meeting

Speaker: Heidi Zimmer

Topic: Ecology and Management of the Wollemi Pine.

*Summary by the editor with images from Heidi*

Heidi started her talk by giving the background to the remarkable discovery of the Wollemi Pine by David Noble and its unusual features, including its bubble bark and unbranched lateral branches. Its discovery amazed the botanical world who knew of the species only as a fossil extending back to the Cretaceous era. The media had a field day and even David Attenborough got involved. Fossil evidence, including pollen, indicates that the species was once widespread in eastern Australia and also found in New Zealand and was probably reduced in distribution as Australia became increasingly arid. Its first recorded location is a sheltered ravine with remnant rainforest although it has since been found in three more locations. There are only 83 mature trees in the wild, many multi-stemmed. Sydney's Royal Botanic Gardens began to cultivate the species from seed and plants were sold.

Early genetic research revealed that there was surprisingly low genetic diversity. Seedlings usually die within the first year of growth but some survive. Growth is very slow adding less than 1cm per year.

Heidi outlined what has been learned about the growth habits of the species and put forward some theories to explain the absence of middle-aged plants in the wild populations.

The Wollemi Pine Recovery Plan (2006) lists three main threats to the species in the wild: Fire, Climate Change and *Phytophthora*. Heidi's research has shown that plants will resprout after fire and it is presumed that the wild population has been exposed to fire during its long history and has survived. Climate change is more of a threat because, although increase in CO<sub>2</sub> speeds up its growth, increasing temperatures decrease its growth and survival. The Wollemi Pine is also susceptible to prolonged drought.

*Phytophthora cinnamomi*, or root rot, was discovered in the wild location in 2005 and is impacting the seedlings although the impact on the mature trees is hard to determine.



Heidi Zimmer (left) with pots of Wollemi Pine ready for translocation

In order to minimise the risk of a stochastic event wiping out the entire wild population, the Recovery Plan recommended that plants be translocated to new areas to establish additional populations. Mt Tomah has been selected as the most suitable site for a backup population since it is close to Wollemi National Park and the conditions are suitable to support the plants as they establish. Light is an important factor, particularly for the growth of seedlings, so gaps in the mature canopy are desirable. Heidi spent some time providing details of the research underpinning the translocation process and was able to report that a survey undertaken five years after translocation found an 82% survival rate. The mortality rate was high in the first winter and higher in the shade than where sun reached the seedlings. It is thought that shade encourages pathogenic fungi. In March 2018, three of the translocated plants had produced their own seed, an important step in the population becoming self-sustaining.



Mature female cones on a translocated pine

Heidi ended with the message that, although humans have not contributed to the decline of this threatened conifer, we can certainly aid in its continued survival. It is now one of the best known threatened plant species

in the world and is an iconic flagship species for conservation.

### Last excursion

*Report by the Editor*

*with plant notes by Dick Medd*

So it was cold, very cold, but otherwise the overnight trip to Dunns Swamp was highly successful. Most of us stayed in comfortable accommodation while Heidi and Shannon chose to camp out at the Ganguddy Camping Ground - brave ladies indeed!

While some did the walk to the weir on Saturday afternoon, others chose to relax at the camping ground and enjoy the birds which appeared to have no fear of humans. First to make an appearance was a Superb lyrebird which wandered through the open area. I didn't need my binoculars to enjoy the birds – a family of Superb fairy wrens squabbled over some morsel between my feet, two White browed scrubwrens searched the wood pile for termites (and, later, tried to extract Heidi's biscuits from their packet) and a Grey shrike thrush watched me from the top of a post a metre from where I was sitting. We also had rare close up views of a Rock warbler and a handful of Purple swamphens wandered around the site looking for leftovers. We also had a visit from a Red necked wallaby.



Rock warbler at Ganguddy Camping Ground

[photo: the editor]

Heidi and Shannon returned from their walk to report they had seen and photographed a Spotted-tailed quoll, the target species for the weekend (see Creature of the Month). Shortly afterwards, someone called out "Quoll!" and there it was, in broad daylight, heading down towards the water. With the quoll making such an early appearance, we were able to head back to our accommodation while it was still light.

For the rest of the weekend, we focussed on the plants. We saw two species of the several that are endemic to the Dunns Swamp province. Both species have small extent of

occurrence - *Baeckea kandos* is Endangered under both NSW BCA and Commonwealth EPBC and *Prostanthera stenophylla* which is not listed as threatened but probably should be. It grows in detritus in the crevices among pagodas and the plants we saw had been severely browsed because of the drought.

Another threatened species, *Grevillea evansiana*, common along the weir walking track, is a bit more widespread but is confined to the Narrabeen sandstones east of Rylstone.



Dick inspects a multi-trunked *Eucalyptus rossii*  
[photo: the editor]

Being winter, very little was flowering but we did spot a few plants of *Epacris reclinata* (Fuchsia Heath) growing in its favoured sandstone rock face and crevice habitat, along with the tiny bright yellow flowers of the glossy green tussocky *Lepidosperma urophorum*. Both form part of a group of many species that are constrained to east of the Hill End Trough. Others spotted in this group were *Persoonia linearis* (Narrow-leaved Geebung), *Persoonia myrtilloides* subsp. *cunninghamii*, *Acacia caesiella* (Tableland Wattle) *Acacia filicifolia* (Fern-leaved Wattle), *Callistemon linearis* (Narrow-leaved Bottlebrush) *Callistemon citrinus* (Crimson Bottlebrush), *Dodonaea multijuga*, *Lomatia silaifolia* (Fern-leaved Lomatia), *Hakea dactyloides* (Broad-leaved Hakea) and *Hakea laevipes*. The latter *Hakea* differs from the former in having a lignotuber, clearly evident from the resprouting in recently burnt areas.

Another plant with a curious distribution, a member of the Goodeniaceae family, is *Velleia parvisepta* which occurs only around Dunns Swamp and in the Warrumbungles.

Following a high quality Yum Cha in Rylstone for lunch on Sunday, we had a drive up Nullo Mountain to ensure we didn't miss out on snow on the weekend. We saw a number of dead wombats and one which looked really sick so we wondered if something is going wrong with the local wombat population.

### **National Tree Day Planting planned at Bloomfield Bushland Sunday 29<sup>th</sup> July 2018**

This was advertised in the last newsletter. Put the 29<sup>th</sup> July in your diary and [join in and make a difference!](#)

More details of the day will be advertised closer to the date. Of course the planting will be dependent on some rain between now and July!

### **Brumbies in Kosciuszko NP**

from Jenny Medd who has received the following information from the Minister in response to a letter she sent on the issue.

The NSW Government has introduced the Kosciuszko Wild Horse Heritage Bill 2018, which will recognise the cultural significance and heritage value of brumbies in the Kosciuszko National Park and set a framework for their future protection and management.

The proposed legislation makes provision for a wild horse heritage management plan that will specify strategies to manage the brumby populations humanely, identify zones where brumby populations will be located and protect the environment.

Importantly, this Bill does not propose to increase the population of brumbies within the Kosciuszko National Park. Also, within sensitive areas of the National Park, brumbies will be removed and rehomed outside the park or, if possible, relocated to less sensitive areas.

The NSW Government will also establish a community advisory panel to inform future management options, develop a research and monitoring program to better understand horse numbers and their impact, and implement an initiative to promote the re-homing and adoption of brumbies out of the Park.

[Interesting that the Minister is establishing a "community advisory panel" but isn't listening to the advice on the issue from her own NSW Threatened Species Scientific Committee - Ed.]

## Creature of the Month

Spotted-tailed quoll  
*Dasyurus maculatus*



Spotted-tailed quoll at Ganguddy Camping Ground  
[photo: Heidi Zimmer]

The Spotted-tailed quoll is the largest of the four species of quolls and is distributed along the eastern coastline and neighbouring ranges of Australia from Tasmania to North Queensland. It is also the largest native predator on mainland Australia.

It normally spends the day curled up in one of its many dens and emerges in the early evening to hunt for small to medium sized birds and mammals and large insects. The

Spotted-tailed quoll has been known to take prey as large as possums and rosellas.

All four species of quolls have seriously declined in numbers and range since European settlement of Australia and all are now considered to be rare so a glimpse of one at Wollemi National Park on our weekend there was a special event.

*Information from "Quolls of Australia", Fact Sheet available from Australian Government Department of the Environment and Heritage.*

## Subscriptions

Payment of Annual Subscriptions is due following the Annual General Meeting in February. 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.

### 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



Trying to keep warm around the campfire at Ganguddy Camping area, Wollemi National Park  
[photo: Heidi Zimmer]

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