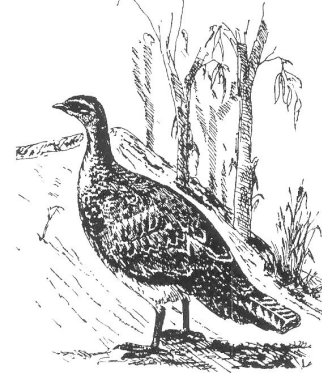




Network News



Newsletter of the Wedderburn Conservation Management Network – April 2011

Conserving Biodiversity

Bendigo students count Wedderburn kangaroos

A large group of Bendigo TAFE students came to Wedderburn early March to help with the annual kangaroo count around the district. Each year the numbers are surveyed to determine how their grazing impacts on the other native plants and animals. Twenty TAFE students from the course, Conservation and Land Management (Cert IV), accompanied their lecturers and spent two days camping on one of the properties of Greenhouse Balanced near Mount Korong. On the first day of their stay they helped the WCMN ranger Wendy Murphy to set out kangaroo poo transect lines and on the second day they helped Parks Vic ranger Nic van den Bronk to stab Wheel Cactus (*Opuntia robusta*) at Mount Egbert (The Granites).



The kangaroo poo transect lines produce statistics on the amount of kangaroo droppings left behind by kangaroos over the period of one month. The area the lines cover runs between Mount Kerang to the North West of Wedderburn to Mount Brennanah in the South. From these figures it is possible to calculate the density of kangaroo numbers over the entire district. Another tool the WCMN uses is a series of grazing exclosure plots. The information from both monitoring methods gives the WCMN accurate information on the total grazing pressure in Wedderburn and informs the management of all environmentally sensitive areas as well as farming land. Setting up the transect lines is labour intensive work and it can't be completed without the annual help of the TAFE students.

Mount Egbert is one of three hotspots for the Wheel Cactus in our district. This land, managed by Parks Vic ranger Nic van den Bronk, gets regular visits from volunteers from Wedderburn and beyond to inject as many cacti as possible. These plants receive an injection of undiluted Glyphosate which kills them so they can't spread further through our precious reserves. The TAFE students did an excellent job sweeping through two sections of the Mount Egbert block to clean out the cactus there.

All students reported they had an excellent time in our town and that they learned a lot. They went back to Bendigo with an appreciation of the environmental treasures we have out here and some of them are sure to be back participating in research projects or work placement jobs in the future.

Article - Jeroen van Veen (Greenhouse Balanced)

What's happening with the spiny rice flower

On Wednesday, 6 April, with the assistance of Wedderburn CFA another small mosaic burn was performed at the spiny rice flower (*Pimelia spinicens*) site. This site had been nominated for a Spring burn, but due to wet track conditions was unable to be accessed in November.

We now have a 4m X4m site that was burnt in November and a 3m X 4m site burnt in April for comparison. The November burn was impeded by very green vegetation, the April burn had a denser and drier fuel load. Photopoint monitoring has commenced at both sites. I have planted the seed gathered in November 2010, using guidelines provided by the *Pimelia Spinicens* recovery team.

Article - Annette Robertson



Orchard Butterfly - *Papilio aegus aegus*

The Orchard Butterfly is found in Eastern Australia most commonly in Qld and NSW, but also in Vic and SA, usually between October and May. They are large black and white butterflies with wingspans of up to 14cm. Host plants include orange, lemon, lime and other citrus trees, Long-leaf wax flower, Leopardwood, Dogwood, Phebalium and Sandfly Zieria.

During the early developmental stage, the caterpillars look like fresh bird droppings and as they grow they develop spines and red tentacles that emit a foul smell.

Males can be quite territorial and will chase anything black and white, including magpies.

This photo is from a garden in Inglewood and this species has not been seen in almost 20 years.

Interestingly, another resident in Inglewood has an Orchard Butterfly frequenting her garden also this year.

Article – Wendy Murphy, Photograph – Laurie May



WCMN members check out the other side

On the Weekend of 2 & 3 April nine members of the Wedderburn Conservation Management Network set off on a much anticipated bus trip to Broken Boosey and Whroo Goldfields CMN area. This trip had been in planning for many months, as an opportunity to learn about and view the projects and operations of another Conservation Management Network similar to Wedderburn and of similar age.

A good early start from Wedderburn, and a few hours travel in a bus saw us transported to quite a change in the landscape and with that, a very different focus on land management and biodiversity protection. At Barmah State Park Leon Atkinson from Parks Victoria gave us a most informative insight into the issues facing the management of the park, and the partnerships with the Yorta Yorta people, the recognised traditional land managers.

Lanie Pearce from Broken Boosey Conservation Management Network led a brief driving tour along sections of the Broken Creek. We were able to view an older revegetation site, and had some discussion about the success of the revegetation, and the progress of it following recent wetter weather. It was enlightening to view how narrow and long the area covered by Broken Boosey CMN is.

After lunch, the tour moved on to Kinnairds Wetlands at Numurkah. Gary Deayton from Moira Shire and Broken Boosey CMN assisted by Lanie Pearce Provided a comprehensive historical look at the management of the wetland area, the challenges and the end outcome. Plenty for us to see on the walking tour of the wetlands and many birds.

Next we were on to Dip Bridge where Andy McDougal from Parks Victoria provided a lively explanation of the catalyst for the project, and the achievements, to revegetate the riparian area and restrict vehicle access, while providing parking and access for anglers and visitors. It is an inspirational example, where joint users and managers of the site have worked cooperatively towards a mutually beneficial outcome. A short drive further along the Broken Creek we saw two fine examples of very old indigenous canoe scar trees.

A comfortable night's accommodation was spent at the almost deserted, but charming Dookie College.

On Sunday, we travelled to Tahbilk Winery. On the way we stopped at a Trust for Nature property at Earlston. Janice Mentiplay Smith provided us with information about the management plan of this property.

A tour of the Tahbilk Winery wetland with Rob McMaster was most informative. Extra information about the flora and fauna was provided by Rolf Weber from DSE. A final visit was made to another Trust for Nature property just out of Nagambie, and it was time for the three hour drive home.

It was an excellent weekend. We gained a lot of information, saw a lot of relevant things of interest and we all appreciated the time and effort put into organising it. Thanks to Wendy Murphy and Janice Mentiplay-Smith from the Wedderburn and Broken Boosey, Whroo Goldfields Conservation Management Networks.

Annette Robertson



Farming in a Changing Climate

It is estimated that the global population increases by 120 people every minute and as a result food production will need to double by 2050 to feed everyone. For the first time in history there are more people living in cities than in rural areas meaning there are less people involved in food production. There is also increasingly less land available for food production with more and more land being taken up for housing, dams and roads. This food production must also be done using less water which is being shared for use in the environment, industry and agriculture.

“The world is one poor harvest away from chaos”

Climate change has always been variable but it is acknowledged by most that it is becoming warmer and drier with more variability and more extreme events. Biological indicators of climate change include vineyards showing earlier vintages such as vintages becoming earlier by one and a half days in NSW while on the Mornington Peninsula vintage is occurring 40 days earlier than 40 years ago and Tahbilk Winery vintage is occurring 20 days earlier than 40 years ago. Plants are apolitical they just react to what's going on around them which seems to indicate a warmer, more carbon dioxide rich environment.

Concerning food security, there is a need to increase yields and increase productivity. Australia's 2010 wheat harvest was the highest in record, this coming off a long period of dry. Australia forms the food basket for Asia. Aussie farms can currently produce enough food to feed 60+ million people. However the yield which needs to grow by 1.5% per year is currently growing at less than 1% per year. Increasing demand is leading to increasing prices. Price increase has been on an upward trend since 2000 with prices expected to double by 2050.

Adapting Australian agriculture to this situation has seen producers adapting practices and technologies, changing farming systems and transforming farming practices.

Successful adaptations moving forward include; intensifying sustainable agriculture, increasing production while maintaining and looking after resources and enhancing input efficiency with respect to chemicals, water, nutrients, land, labour, pesticides

Soil health is critical. Australian soils are not made for cultivation and changes in farming practice include; minimizing soil disturbance by tillage, enhancing and maintaining organic matter cover on and in soil and diversification. Such diversification involves; variation in the rotations, sequences and associations of plants; the use of annuals and perennials, increasing the use of woody crops (e.g. mallee oil production) and the use of legumes. The matching of soils to enterprises, known as 'on farm planning', involves; cropping the best soils with highest production potential, grazing the next best soils and using the poorest soils for biodiversity (carbon credits) or woody crops (biofuels)

Summarized by Wendy Murphy from a talk given at the forum: **What's Up With The Weather?**

St Arnaud 25/2/11 hosted by VFF & NCCMA

Observers take a break

The Wedderburn Conservation Management Network "Observers" have been in Tasmania for a few weeks. While over there, they had opportunities to explore and experience an interesting range of natural environments, which are very different from this local area.

After the break, the Observers have really noticed some changes in our vegetated landscape.

Firstly, it seems that most bushes and trees in the forest have been adorned with a Golden Orb spider of some variety. Most spiders seem to have at least doubled in size, and strengthened their beautiful golden webs which are located in the most strategic position to interrupt the passage of not only their food sources, but also the humans who pass by. The spiders are marvellous to observe, catch the web in the right light and it really is golden, and so strong. There hasn't been so many of them for years. With hunting season open for both duck and quail these birds seem very obvious at this time. In particular the Observers have noticed increased numbers of quail, not only in open grassland (their usual habitat) but also around buildings and in lightly forested areas. A delightful sighting was of some very young quail chicks, only the size of a ten cent piece that scuttled for cover from low bush to low bush. The parent bird had tried to distract attention from the chicks by a short characteristic noisy flapping flight in the opposite direction.

The bush is so green now, particularly the understory plants. It



is a wonderful time to observe nature returning to a healthier condition. Ruby saltbush is particularly green and vibrant with great contrast with the red, yellow and sometimes orange berries. With tracks drying out, it is ideal weather to get out into the forest and make friends with a spider!

Article - Wedderburn Conservation Management Network "Observers"

Photo: Golden Orb Spider

Farming for Sustainable Soils and Consequences for Biodiversity

I have now attended two of the soils forums dealing with Farming for Sustainable Soils which have been hosted by the NCCMA in Bendigo. Both forums have been excellent.

The Farming for Sustainable Soils project is part of a response to what is recognised as a major problem in Australian agriculture i.e. the degradation of soils.

"Traditional land management practices leave the land devoid of vegetative cover at critical times of the year when it is more prone to both wind and water erosion. Changes in the water balance of landscapes enhance the negative impacts of traditional agricultural practices. These place pressures on the soil that lead to loss of soil structure and resilience in the face of erosive winds and water. The loss of soil structure is accelerated by the loss of soil organic matter".

"The altered climatic conditions present enormous challenges to today's farmers as they struggle to adopt new farming practices more in tune with new circumstances". Quotes by Phil Dyson project manager.

These are echoes of the same messages given in the article above by Wendy.

My initial reason for attending these forums was to look for a link between this problem and the conservation of biodiversity. A possible answer to my enquiry seemed to lie in listening to one of the presenters from the 2010 forum, Dr Christine Jones (CJ) and Colin Seis, one of the originators of the technique of pasture cropping, in a talk he gave at Serpentine.

"Carbon is the currency for most transactions within and between living things. Nowhere is this more evident than in the soil where carbon produced by green plants is traded for nutrients from fungi (Mycorrhizal) and bacteria in the soil. Mycorrhizal fungi and associative bacteria are very strongly inhibited by excessive soil disturbance and the high levels of water-soluble phosphorus and nitrogen commonly used in modern agriculture. The structural degradation of agricultural soils, accompanied by mineral depletion in food, has largely been the result of the inhibition of this natural carbon pathway." - CJ

Colin Seis, in referring to his *more sustainable farming technique* had mentioned "there is growing evidence, anecdotal and scientific, to support improvement in soil health, improved water use efficiency and *general improvement in ecosystem function*". It would appear then that certain farming practices which are detrimental to the composition and structure of soil lead to a break or inhibition in a natural biological chain of events. Some have even suggested that this break at the soil level may be responsible for such things as the decline in certain bird populations in parts of Victoria. Considering this information it would seem that soil condition is an extremely important aspect with respect to the conservation of biodiversity in the soil and subsequently at higher levels.

In view of these statements it was very encouraging to note the enthusiasm of the assembled groups at both forums, especially young farmers, as those involved in the soil project presented their progress and successes to date in changing to more sustainable farming practices.

Article - Michael Moore

The WCMN is a network including interested individuals, both public and private land managers who come together to promote a shared aim. That shared aim is to work with the community in general to promote profitable, productive and sustainable human enterprises while conserving and indeed enhancing the biodiversity of their area of interest.

For further information concerning any items in this newsletter or other aspects of the WCMN contact

WCMN ranger, Wendy Murphy - 0438384053

WCMN Chairman, Michael Moore – 54943542

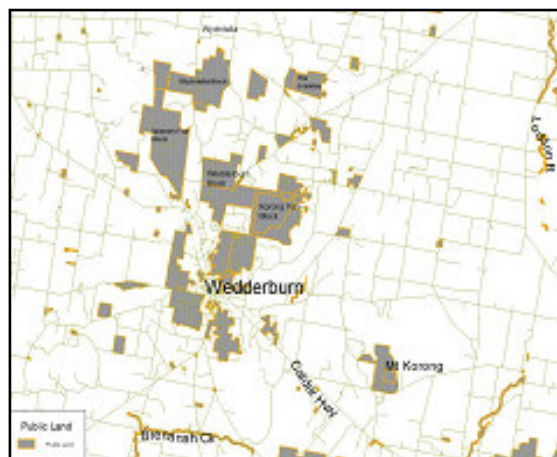
Website addresses

<http://mc2.vicnet.net.au/home/january/web/index.html>

<http://wedderburncmnnews.blogspot.com/>

<http://lplnnews.blogspot.com/>

LPLN- Loddon Plains Landcare Network



The WCMN Area of Interest