Issue 3 - May 2007

Wombat Forestcare Newsletter

Welcome to Wombat Forestcare's third newsletter. This issue has grown by an extra two pages thanks to Alison Pouliot and Deanne Drayton's informative articles. In the past month, much time and energy has gone into attempting to reduce the damaging impacts on biodiversity from prescribed burns and track works in the forest. Gayle Osborne and Murray Ralph update us on this and more... Tibor Hegedis *(editor)*

The Hidden Treasures Of The Wombat

By Alison Pouliot

The kingdom Eumycota, otherwise known as fungi, is a largely unseen and secretive one. It includes some of the most fascinating and ecologically important organisms, as well as some of the most ancient, dating back to the Devonian era of 350 million years ago.

Fungi have provided enormous intrigue to people throughout history. Their remarkable qualities of being poisonous, hallucinogenic, edible and mysterious have resulted in extremes of attitudes toward them worldwide. Due to their habit of appearing suddenly and then supposedly vanishing into thin air, they were often regarded suspiciously with some believing them to possess supernatural powers.

The health of our forests is very much dependent on their relationships with fungi. Their important role is often overlooked as it occurs mostly underground. Fungi play an essential part in nature by decomposing complex organic compounds and returning their minerals to the soil and gases to the air, ensuring the continuous natural cycle of life.

The Wombat Forest is renowned for its mycological diversity. A few hours foraging during autumn will reveal dozens of species from all the major groups, in a myriad of colours, shapes and forms.

As over 90% of fungi form symbiotic relationships with plants, habitat protection is a fundamental factor in the preservation of fungi diversity.

Agaric sp. *(photo by Alison Pouliot)*

The rarity and decline of some fungi species is believed to be due largely to their habitat sensitivity. Increases in pollutants, deforestation and development have caused significant habitat loss with a subsequent decline in fungi diversity. The existing approach to fungi conservation in Australia very much rests on the assumption that establishing parks which incorporate the various major vegetation types, will allow for the inclusion of associated fungi.

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Foraging for fungi in the Wombat Forest *(photo by Alison Pouliot)*

Local ecologist and photographer, Alison Pouliot, is running a series of seminars and workshops on fungi ecology, to both inspire interest in these fascinating organisms and explore some of the myths. She has recently returned from central Europe where she has been working alongside fungi experts and gleaning local knowledge. The workshops will include a foray into the Wombat Forest to observe fungi growing in various habitat types.

The seminars and workshops will be held at the Daylesford Learning Centre on Saturday 19th May, Sunday 20th May and Saturday 26th May. For bookings call 5348 3569. For further information email Alison directly at info@alisonpouliot.com or call 0439 764 344.

Workshops will also be held elsewhere in central Victoria including Creswick, Meredith (Sunday 3rd June), Mount Macedon (Tuesday 5th June), Newham, Woodend (Saturday 2nd June), Blackwood and Bendigo. ■

While this is a valuable attempt at conservation there is still a dearth of information and further research is necessary to ensure that we are protecting fungi diversity. Very little is known about basic distribution, habitat preferences and the majority of fungi species in Australia are yet to be collected and formally named. ■

The Effect Of Drought On Platypus Populations

By Deanne Drayton

The drought has had a significant effect on human populations, with dams and reservoirs drying up. Water, our precious resource, is becoming harder to find. With climate change and the earth heating up, it is only set to get worse. We hear in the media the effects this is having on populated areas and farmers, but we don't hear much about the effect drought has on our native animals, particularly the aquatic species that rely heavily on water, and more specifically, the platypus.

The platypus is a very shy and elusive animal and you would be very lucky to see one in the wild. They are found in freshwater in east and southeast Australia and are common, although it could be perceived not to be so, as they are hard to find. They search underwater for food and live a semi-aquatic lifestyle spending up to 17 hours a day resting in their underground burrow.

Platypus are monotremes (from the Order Monotremata), and are one of two monotremes that exist in Australia, the other being the echidna. Monotremata means "with one hole", therefore

Platypus underwater (photo by D. Watts, from The Mammals of Australia, edited by Ronald Strahan)

the platypus has a single opening, the cloaca. Reproduction and waste products pass through this one opening. Monotremes are different from other mammals, as they have no teats; the young suckle on mammary patches, where milk oozes onto the skin. Monotremes also lay eggs like birds but raise their young like mammals.

Males have a sharp hollow spur on each ankle; this is connected to a venom gland in the groin. The venom in quite potent and is also dangerous to humans.

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It is not really known what this spur is used for but the spur is most active in the breeding season it is thought that competing males use the spurs in territorial fights.

Platypus are meat eaters that need to consume at least 15% of their body weight each day to survive. They eat small animals such as insect larvae, molluscs, freshwater shrimp, yabby and crayfish, and they will sometimes eat frogs. They are excellent biological indicators of the productivity of freshwater ecosystems, as they cannot survive without large amounts of food.

The platypus is well known for living in healthy freshwater systems, which unfortunately, are also threatened by human development and pollution.

In drought conditions, waterways generally decrease in size, so shrinkage and loss of habitat are common. In times of drought there is a correlation between warmer atmospheric temperatures and an increase in water temperatures, so flow rates decrease, therefore reducing the amount of oxygen levels in the water. Salinity levels rise along with an increase in dissolved organic matter. Nutrient inputs are reduced as there is less runoff, but nutrient concentrations increase due to less dilution. These changes can often lead to local extinction of many water dependent species, which causes major losses in diversity.

Platypus will die rapidly when stressed. In drought conditions the whole ecosystem is stressed and unbalanced. Prolonged drought means that freshwater systems change, the quality of water deteriorates, and the organisms that rely on that system begin to decrease in numbers and die. When the food supply of the platypus begins to disappear, then ultimately they will perish, as they are adapted to feed exclusively in the water and cannot enter torpor (hibernation) for more than 6 days at a time. Torpor is not a survival solution for them and they cannot cope with this kind of extended stress, nor would they have enough food stores to allow this to occur, due to a decrease in food availability.

Drought can affect the platypus in a variety of ways, mainly by reducing the size and productivity of their aquatic environment and increasing their vulnerability to predators when surface waters recede. Life during drought looks quite grim indeed for one of our much-loved Australian animals. ■

References:
Lindsey,T. (2001). Green Guide. Mammals of Australia. New Holland Publishers, Australia.
Readers Digest. (1997). Encyclopedia of Australian Wildlife. Readers Digest, Australia.
www.epa.qld.gov.au www.envict.org.au www.platypus.asn.au

Chain Of Ponds

By Gayle Osborne

A few years ago members of our group were picnicking near the volcanic vent on Mudlark Road in the Wombat State Forest. Our guest was Professor Ian Rutherfurd from the School of Anthropology, Geography and Environmental Science at Melbourne University.

As we wandered along Kangaroo Creek, Ian explained to us that the creek was actually a Chain of Ponds which is now an endangered land form. We were delighted to be told that some of the ponds were in very good condition; however some were slightly degraded due to their sensitivity to fine sediment which is washing into them from a track crossing.

Chains of Ponds are characterised by deep pools of different shapes separated by confused channels with vegetation between them. They are constantly changing as the banks collapse the ponds reform.

A partially dry Chain of Ponds *(photo by Tibor Hegedis)*

The ponds on Mudlark Road are can be incredibly beautiful in winter when they are lined with ribbony vegetation and are wonderfully deep. However during the last few years of drought have they have been mainly dry.

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These ponds were once common along the coastal belt of SE Australia and in SW Western Australia. They are now very rare and Ian said that there are probably only a dozen good sets remaining in Victoria. Moonee Ponds was such a chain. Grazing has had a major impact, causing the disintegration of the ponds and turning them into a continuous water flow, often an incised gully with erosion.

If you saw Peter Andrews on Australian Story you would get an indication of how the ponds work. By creating wetlands the water passage is slowed down but is not stopped the way it is when dams are created. Many farmers are now restoring their creeks in this manner.

There is an interesting website detailing a creation of a Chain of Ponds on a NSW property (http://www.excelink.com.au/saving_soil_water_on_the_farm.htm). The owner said that "within a very short time the chain of ponds restored the natural lateral flows of water through the soil." This lateral flow has increased the water holding capacity of the adjoining paddocks. Birds and frogs now inhabit the ponds.

It is inspiring to read of these marvellously recreated wetlands, but I wonder if they can compare with the natural beauty of the ponds within the forest where orchids and fungi grow and they are shaded by large eucalyptus trees. ■

Ecological Vegetation Classes of Wombat Forest

By Murray Ralph

The types of native vegetation that occur across Victoria vary significantly. This variation reflects differences in geology, soil type, aspect, climate, altitude and position in the landscape. Depending on these environmental conditions, particular plant species and groups of plants will tend to grow together. The term used to describe these distinct native vegetation types or plant communities is Ecological Vegetation Class (EVC).

Within the Wombat Forest approximately 30 different EVC's have been mapped (although more mapping is required). The most common EVC in the Wombat Forest is Shrubby Foothill Forest. It occurs on both sides of the Great Divide, but is particularly extensive on the southern side of the divide.

Herb-Rich Foothill Forest (EVC 23)

This EVC occurs on both fertile soils derived from basalt and the less fertile soils derived from Ordovician shales and sandstones. Altitude is usually 600-900m above sea level and annual rainfall generally between 800-1000mm per annum.

The overstorey is a medium to tall open forest dominated by Messmate *(Eucalyptus obliqua)* with Manna Gum *(Eucalyptus viminalis)*, Narrow-leaf Peppermint *(Eucalyptus radiata)* and Mountain Gum *(Eucalyptus dalrympleana)* also common. Understorey trees, including Blackwood *(Acacia melanoxylon)* and Cherry Ballart *(Exocarpus cupressiformis)* may also be present.

The understorey is dominated by a diverse ground layer of forbs and grasses, with a sparse to non-existent shrub layer. Silver Wattle *(Acacia dealbata)* is often the only shrub present, although Narrow-leaf Wattle *(Acacia mucronata)* and Prickly Currant-bush *(Coprosma quadrifida)* may also occur.

Common native herbs include Ivy-leaf Violet *(Viola hederacea)*, Bidgee-widgee *(Aceana novae-zealandiae)*, Kidney-weed *(Dicondra repens)*, Hairy Pennywort *(Hydrocotyle hirta)*, Prickly Starwort *(Stellaria pungens)*, Small Poranthera *(Poranthera microphylla)*, Mountain Clematis *(Clematic aristata)* and Spiny-headed Mat-rush *(Lomandra longifolia spp. longifolia)*.

Common grasses include Common Tussock-grass *(Poa labillardierei)*, Weeping Grass *(Microlaena stipoides)* and Forest Wire-grass *(Tetrarrhena juncea)*. Austral Bracken *(Pteridium esculentum)* is also very common and may often dominate on highly disturbed sites.

Herb-rich Foothill Forest is classified as being as being depleted, due to this EVC being cleared from much of its' former range. The main threats to this EVC include logging, firewood harvesting, fuel reduction burning and weed invasion. ■

Typical Example of Herb-Rich Foothill Forest
(photo by Tibor Hegedis)

Fuel Reduction Burns

By Gayle Osborne

As Professor David Lindenmayer (Centre for Resource and Environmental Studies, ANU) stated in a recent 4 Corners program "land management and fire management is far, far more complex than I think many commentators in this arena have any idea of."

We have a situation where guidelines are set in place for the State; instead we need local solutions in which experts in biodiversity conservation are involved in the planning process, not only in the planning of each burn but in the creation of the burning zones.

Approximately 7,000 hectares of forest are listed for fuel reduction burns in the Wombat over a three year period. This represents about 10% of the Wombat Forest. The reason for this is the amount of private property in and around the forest which requires "asset protection."

The Wombat State Forest is divided into zones for fuel reduction burns. Zone 1 (Asset Protection) and Zone 2 (Strategic Fuel Reduced Corridors) are burnt the most intensively. So what happens when there are important ecological issues in these zones?

The Fire Protection Plan for Zone 1 states that "Where there is incompatibility between fuel management and management of rare and threatened flora or fauna, modification of fuel management techniques to assist management of the values are implemented where appropriate."

However the Code of Practice states that where this incompatibility exists fuel management will take precedence, but that techniques to maximise protection should be implemented. When issues of biodiversity are raised DSE is quick to point to this statement.

We have seen a number of burns this season where important flora and fauna values were overridden. The burn at Blakeville-Bunding was carried out in a Special Protection Zone set aside for the major population of Greater Gliders in the Wombat State Forest at a time of the year the Fire Protection Plan excluded burning.

The burn at Domino Road, Trentham, which is only partly complete, had a section of Sedgy Riparian Woodland (listed as vulnerable) which despite the low intensity and patchiness of the burn, was badly damaged. The main gully burnt intensively.

Burnt out gully in the Loddon River catchment
(photo by Tibor Hegedis)

There are many reasons the protection of gullies is very important, including often being the last refuge of locally or regionally declining species.

The Wombat is the headwaters of six major river systems and the burning of gullies also has impacts on these. We believe that with much better planning these burns can have less impact on both biodiversity and water.

To quote Professor Lindenmayer again, "yes, fire is a key process in the Australian environment, but there are many other values which we've got to think about. We do have to think about biodiversity issues. Australia has up to ten percent of the world's species, and many of those are threatened by altered fire regimes. So we've got to get this fire management thing sorted out."

To read the transcript of the interview with Professor David Lindenmayer, visit the ABC website below:
http://www.abc.net.au/4corners/content/2007/s1882728.htm ■

Fire Trail Bulldozed Through Blue Creek

By Gayle Osborne

In early April, a fire trail was bulldozed in the Wombat Forest near Newbury, by the Department of Sustainability and Environment, along the interface with private property. The bulldozed trail partly followed a very small track and then went through the forest and a crossing was made on Blue Creek.

The damage to the creek is extensive with soil being dozed into the creek to make a crossing. A number of trees have been pushed over, including one with a hollow and a small dead animal in it, possibly a baby ringtail possum. In the gully area a number of Blackwood trees have also been pushed over. The trail has been cut deeply into the earth affecting the stability of some trees.

Checking hollows for animals. A small dead animal was found in this downed tree *(photo by Tibor Hegedis)*

It is possible that this work was carried out without proper authority.

The Fire Operations Plan with regard to Dozer works on tracks around the Public Land/Private Property interface states that "This work will be conducted in accordance with the Code of Forest Practice Environmental Standards and in consultation with adjoining landowners when boundary tracks are involved."

The owner of the adjoining property, who was attending a DSE tour of the Domino Road Burn at the time of the bulldozing of the trail, was completely unaware that these works were proposed. The owner immediately contacted DSE and a meeting was held on the site.

It appears that Elizabeth Ashman (East Midlands Coordinator, DSE) was unaware of this work and immediately organised to close the track and for a rehabilitation plan to be prepared.

Bulldozer tracks through Blue Creek near Newbury *(photo by Tibor Hegedis)*

The fallen trees have been moved back onto the track to stop access, and soil and destroyed vegetation has been pushed back onto the track. In many areas this remains in piles. The creek damage has not been addressed at this stage and there are some issues with the work that has been done so far.

Although this is an extreme example of dozer works in the forest, it is not uncommon for little regard to be paid to water and biodiversity values. Over a year ago we showed Elizabeth Ashman some works in the Mudlark Road area where a dozer driver had attempted to cross a steep banked creek in three places and had then carried on with other works in the vicinity of the creek. There were promises from DSE of rehabilitation, which still has not been carried out, and trail bike riders are having great fun on these crossings creating further damage.

We are constantly bringing these issues to the attention of the DSE in the hope that eventually they will tread lightly and carefully in our forest in the future. ■

News and Events

Fieldwork Finished On Wombat Community Research Project

The fieldwork component of our joint project with the Arthur Rylah Institute (ARI) was completed in early May 2007. It was a glorious autumn day when we visited the last eight sites (from the total of thirty) to place durable markers around the start points of the transects. The sites had been marked by ribbon tape but would not have stood the test of time, or fires, as several of our sites have been burnt as part of fuel reduction burns.

The research project has given many of our members the opportunity to participate in gathering important information about flora and fauna from across the Wombat Forest, and in the process, discovered ways to appreciate it more.

There is still some data entry to complete, and this will then be analysed by the ARI. A presentation of the findings will then be given, so we'll keep you informed as to when and where. ■

Biodiversity Conference at Ballarat University Mt. Helen Campus, on 15th June 2007

Biodiversity Across the Borders
"Maintaining biodiversity in modified landscapes"

Themes include: Water and wetlands, Vegetation dynamics and management, Ecology and management of avifauna, Biodiversity and How can ecological research better inform management practices?

For more details, contact Dr. S.K. Florentine
phone: 03 5327 9231
email: s.florentine@ballarat.edu.au ■

Government seeks submissions on Land and Biodiversity White Paper by 22nd June 2007

The Victorian Government is developing a White Paper on Land and Biodiversity. On 23rd April 2007 it launched its White Paper consultation process, which seeks a strong community participation so that as many views and ideas as possible can be considered. Closing date for submissions is 22nd June 2007.

For further information and how to make a submission visit the DSE website:
http://www.dse.vic.gov.au/DSE/nrence.nsf/ ■

Annual General Meeting

Our Annual General Meeting will be held at 7.30pm on Wednesday 25 July 2007 at the Glenlyon Hall.

This is a wonderful chance to get together and meet other members.

The business to be transacted at the AGM is:

(1) financial reports and other reports
(2) to elect Committee Members
(3) to consider any item of business previously notified in accordance with the rules
(4) to determine the new annual subscription

There will be seven committee member positions available for election. We encourage you to consider becoming a committee member, so please come and participate.

Nominations for the Committee shall be accepted in writing before the Annual General Meeting or verbally from those members present, and election shall be decided by a show of hands unless a secret ballot is requested, in which case the ballot shall he conducted in such usual and proper manner as the Chairman shall direct.

For further details on the AGM or for a copy of the Constitution (if you do not already have one), please contact Gayle Osborne.

We are looking forward to celebrating the first nine months of Wombat Forestcare Inc. and hope you will be there. Thanks to all our members and supporters.

Gayle Osborne
phone: 03 5348 7558
email: gayle.osborne@bigpond.com.au ■

Newsletter articles (and suggestions) are most welcome. Please limit articles to about 500 words and send a selection of photos if appropriate. The newsletter is published quarterly in February, May, August and November, with articles due by the middle of the preceding month. Please contact **Tibor Hegedis at wombatoz@iprimus.com.au** for more information or to discuss your ideas. The newsletter is only made possible by the fabulous contributions of Wombat Forestcare members, so keep those articles coming. (Ed.)

Winter Bushwalk And Picnic at Nolan's Creek Picnic Ground at 11am, Sunday 17th June 2007
Come for a walk along the Lerderderg River. We'll look for fungi and the old-growth tree ferns there. The forest looks great when wet and shiny. Dress to enjoy cold/wet weather, wear walking boots and bring your lunch. We will provide BBQ facilities, a warm fire and hot drinks. See you all there for a wonderful Wombat winter experience. Please contact Gayle Osborne if you require directions. ■

Book Review

By Tibor Hegedis

'Gariwerd – Reflecting On The Grampians'

Images by Alison Pouliot and Words by Gib Wettenhall

Published by EM Press, Ballarat, Victoria, Australia
Limited Edition - ISBN 0 975 7778 2 3
Standard Edition - ISBN 0 975 7778 1 5

Gariwerd is the Aboriginal name for the Grampians, a mountain range rising out of the western plains of Victoria, Australia. Powerful forces, both natural and man made, have shaped Gariwerd's stunning, wonderful rock formations, it's wildflowers, waterfalls and waterways, eucalyptus trees, mosses and fungi.

All this is beautifully captured in Alison Pouliot's photographs. Her vision draws us in and invites us to examine some images in detail, whilst other images encompass wide mountain vistas and give us a sense of scale. The patterns of nature, the influence of fire, wind and water, the contrast and the harmony of colours, are wonderfully depicted.

As a photographer myself, I found Alison's images inspiring and appreciate her eye for detail.

Writer Gib Wettenhall's very readable, descriptive language, brings to life the geological history and formation of Gariwerd, as well as it's human history from the Aboriginal dreamtime and their habitation of the area, to the impact of the European settlers.

His essays convey the intimate connection the traditional owners had with the land, how they lived with and adapted to the seasonal cycles and the landscape, for over twenty thousand years of occupation. He then gives us some perspective by reminding us the impact the last two centuries of land use has made. The change to traditional fire regimes, clearing for grazing and mining, damming and re-direction of waterways, have all left their mark.

Both Alison and Gib give us a sense of the grandeur of the landscape, the contrast of conditions and extremes that have made Gariwerd so unique. From dry exposed escarpments to swamps and moist gullies, Gariwerd is home to an amazing variety of flora and fauna, a wildflower wonderland seasonally showing off a full spectrum of colour.

This complimentary collaboration has produced a beautifully printed and presented book. ■

Wombat Forestcare (Inc.) Membership

Wombat Forestcare Inc. is dedicated to preserving the biodiversity and amenity of the Wombat State Forest by utilising the skills and resources of the community. It will monitor activities affecting the forest and will work with government departments and their officers to improve or correct procedures which may impact on it. By becoming a member you will have input into our activities and projects, and give support to caring for our forests. For memberships and further information contact Gayle Osborne on 03 5348 7558 or gayle.osborne@bigpond.com - Membership Fees are only $10 Single and $15 Family.

Wombat Forestcare

If undeliverable, return to: Wombat Forestcare Inc.
c/- Gayle Osborne RMB 3538 GLENLYON VIC 3461

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