Issue 12 - April 2010

Wombat Forestcare Newsletter

A new decade welcomes us all. 2010 has been declared the International Year of Biodiversity by the United Nations. This gives us a great opportunity to become more aware and to get involved with the biodiversity and environmental matters that are concerning us. In this issue we endeavour to inspire and educate with articles about fungi and falcons and EVCs amongst other things. Wombat Forestcare continues to act locally by representing our ecological values regarding the Wombat Forest but is also commited to supporting other Victorian environment groups with similar aims statewide... Tibor Hegedis *(editor)*

Fostering biophilia - The Wombat Forest and the International Year of Biodiversity

By Alison Pouliot

The United Nations has declared 2010 the International Year of Biodiversity (IYOB). This is a call to action to instigate international measures to curb biodiversity loss worldwide. Governmental reactions have been too few and too late hence new approaches, new ways of thinking and new actions must be inserted into the political process from below. Action begins locally, for example, here in the Wombat and one way to begin is through efforts to foster biophilia, the love of nature.

Is the Wombat's biodiversity teetering on the brink? *(photo by Alison Pouliot)*

Australia is one of the most biologically diverse countries on the planet and the Wombat Forest represents an area of significant biological diversity. Based on the high number of species and high degree of endemism, Australia is defined as megadiverse, being one of 17 countries that collectively contain more than 70% of the world's species. Biologists estimate that more than a million species inhabit our continent. However, the bad news is that Australia also has an appallingly high rate of species extinction.

The global picture

The International Convention on Biological Diversity, which was agreed at the Rio Earth Summit of 1992 and ratified by 193 countries commits its signatories to protect biological diversity. Although pledging to reduce the rate of biodiversity loss by 2010, with the exception of some regional successes, the pledge has not be met with many scientists warning that species loss is accelerating, calling it the sixth great extinction. The sixth extinction is resulting not from natural events but specifically from anthropocentric causes. While certain levels of extinction are part of natural evolution, according to the International Union for the Conservation of Nature (IUCN), a conservative estimate of species loss is between 1000 and 10,000 times higher than the expected natural extinction rate. Despite missing the 2010 goal, the UN Environment Programme scientists have urged governments worldwide to renew their commitment to decreasing biodiversity loss.

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The UN Convention on Biodiversity Summit held in Japan in October will be a crucial opportunity to formulate a legally-binding treaty to decelerate species loss. The lack of commitment from many key countries to legally-binding agreements at the 2009 Copenhagen Climate Change Summit makes one inevitably feel skeptical about the potential outcomes in Japan, hence the need for ongoing pressure from the bottom up, from each individual person, to galvanise governments into action.

The local picture - biodiversity awareness and the Wombat

Given that Australia is one of the two most affluent countries on the megadiversity list, one might expect that a well-educated, wealthy population would have greater means to tackle environmental issues, protect its biodiversity and set a global example. Unfortunately all levels of government have been far too slow to take action with many still failing to recognise the urgency of the issue and the significance of biodiversity loss.

The protection of the Wombat's biodiversity, for example, does not appear to be on the agenda. A quick online search of the Wombat Forest will reveal 4WD activity maps, blogs from Dirtbike World, car rally calendars, the Sawlog Supply Project and the like. The first (and almost only) mention of biodiversity that I could find was on Wombat Forestcare's website. The point is that the protection of the Wombat's biodiversity is being grossly overlooked. Every other use of the Wombat Forest, most of which are largely counter to biodiversity protection, appear to take priority.

Hepburn Shire Council's response to my several queries regarding IYOB initiatives was that it hadn't thought "that far ahead". If it doesn't think "that far ahead" soon the Wombat Forest's biodiversity may well be irreversibly compromised. Nic Stern's keynote address at the Copenhagen Climate Change summit couldn't have been more explicit in urging politicians to recognise the severity of the consequences in failing to cut world carbon emissions. He spoke of potentially devastating consequences – for humanity, biodiversity and all life on the planet.

One might wonder just how much more expert and convincing the arguments need to be to incite action. These actions must start happening locally and they need to happen now, if we're to seize what may be the last chance to make a difference both locally and globally.

The costs of destroying our forests

A UN study found that deforestation alone costs the global economy between two and five trillion dollars per year.

The Economics of Ecosystems and Biodiversity study (equivalent to the Stern report for biodiversity) warns that this cost amounts to an economic catastrophe of an order of magnitude greater than the recent global economic crisis. The UN estimates that for an "annual investment of $45 billion we could secure the delivery of ecosystem services worth some $5 trillion a year." In the context of recent financial losses on world markets this is not a big price to pay. Although the Commonwealth government declared land clearance as a key threatening process for biodiversity in 2001 (under the EPBC Act 1999) felling of forests has accelerated, with more forests felled in the last 50 years than in the 150 years prior.

The inclusion of Natural Capital in governmental accounting along with sound biodiversity management is imperative if we are to reduce the costs of future losses. Chair of the IUCN's Species Survival Commission, Simon Stuart, recognises IYB as a critical opportunity for "…governments to do for biodiversity what they failed to do for climate change in Copenhagen…and key to this will be halting species extinctions, the most irreversible aspect of biodiversity loss."

Fostering biophilia - inspiration, education, connection

All these statistics are indeed daunting but there's so much that can be done on an individual and community level starting with cultivating what biologist, E.O. Wilson termed, biophilia, referring to our love, respect and innate affinity for nature. This may indeed be challenging given that numerous societies throughout history have taught their members to fear and conquer nature. Perhaps this had context for primitive peoples but today this disconnection from the natural world has produced environmental and social dysfunction at a global level. What is needed is a massive effort towards reconnecting, fostering biophilia and developing a sustainable relationship with the natural environment. This involves not only knowledge and understanding but also finding ways to engage the heart, allowing people to discover and express their feelings for the environment – through artistic expression, celebration, ritual, whatever ways work for each individual.

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The aim is to raise awareness and consciousness in as many people as quickly as possible, injecting environmental concerns into mainstream popular culture.

Biodiversity protection is not just a scientific and political issue, but also a social and ethical one. It is part of the moral stewardship of every person on the planet. Ideas and actions need to start locally, informing the Council of the value of the Wombat's biodiversity and the implications of its loss.

It's not about fencing it off to keep out the ravening hordes as some of the aforementioned groups seem to fear, but one of active engagement, opening it up in a sustainable way with biodiversity protection as the priority. All life forms in the Wombat have intrinsic worth and shouldn't require a human use to justify their protection.

Biodiversity loss is an ongoing problem that must be solved and IYOB is the perfect platform to motivate reconnection with the environment. This requires a global approach in which Australia could play a leading role. If we continue to ignore the urgency and magnitude of the issue we will all suffer the consequences - it is not something or someone else's habitat that is being destroyed, but our own. After all, there is only one Wombat Forest. ■

Biodiversity In Crisis

By Gayle Osborne

The natural world, or in old fashioned terms, "Mother Nature" is an exquisite system. Evolved over billions of years, every microbe, insect, animal and plant performs a function that is linked to keep the system running.

We now call this biological diversity or biodiversity and it encompasses the variety of all life forms on earth - plants, animals and micro organisms, the genes they contain, and the ecological systems of which they form a part. It is a constantly changing and evolving system.

In order to increase worldwide awareness of biodiversity and its importance, and to engage more people in its conservation, the United Nations has designated 2010 as The International Year of Biodiversity.

In 2005 the United Nations reported that approximately 60% of global ecosystem services were being degraded or used unsustainably.

Imperial Hairstreak, *Jalmenus evagoras. (photo by Gayle Osborne)*

According to Prof. Brendan Mackey (Director, ANU WildCountry Research and Policy Hub) "By any measure, we are now in the midst of the 6th mass extinction of biodiversity in the history of the earth and the first to be driven by human activity."

The loss of biodiversity threatens our health and wellbeing. The fertility of our land and the purity of our water are dependent on micro-organisms. Healthy ecosystems support food production and clean air.

Victoria, once a biodiversity paradise has "some 3,140 species of vascular plants, 900 lichens, 750 mosses and liverworts, 111 mammals, 447 birds, 133 reptiles and 33 amphibians as well as a large number of invertebrates, fungi and algae species, many of which are yet to be described." (State of Environment)

However, under the stewardship of European settlement Victoria has become the most cleared state in Australia. We have removed 60% of our native vegetation and drained 35% of our wetlands. It should not surprise us that 44% of Victoria's native plants and 30% of the State's native animals are either extinct or considered under threat. Most of the clearing for agriculture has occurred in the western half of the State.

"Some 157 animal species are considered threatened in Victoria, while a further 24 have become extinct.

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In addition, 778 plant species are listed as threatened in Victoria, with 51 extinctions." (State of the Environment)

The State of the Environment Report indicates that we are still losing native vegetation, existing vegetation is declining in quality, more native species are being added to threatened lists and climate change threatens many other species.

This is despite all the efforts of those involved in biodiversity conservation and plethora of environmental legislation, white papers and catchment management strategies and reports all highlighting the urgent need for action.

Unfortunately, in response to this the Victorian Government has failed to commit adequate resources to ensure that biodiversity is conserved. Instead there is a heavy reliance on seeking private investment under the guise of 'fostering environmental markets and leveraging investment'. The Australian public seems to remain largely unaware of the crisis, or the fundamental role biodiversity plays in the health of the planet.

There is an urgent need for better public education on the vital role biodiversity plays in sustaining all life and human societies, and a substantial (tenfold) increase in resources to address the crisis we all face.

We hope that the designation of 2010 as the International Year of Biodiversity will give groups like Wombat Forestcare the opportunity to raise these issues locally, to promote the importance of the Wombat Forest and to lobby for the protection of existing flora, fauna and ecosystems.

References:
State of the Environment Report – Victoria 2008
Environmental Sustainability Issue Analysis for Victoria - CSIRO 2004 ■

An amazingly colourful caterpillar on the leafless bossiaea *(photo by Gayle Osborne)*

VEAC under threat?

By Gayle Osborne

Having only just written in the last newsletter about the importance of the Victorian Environment Assessment Council (VEAC) and its independent role in providing environmental advice to the government, one of the recommendations from the recently released Land and Biodiversity White Paper is to incorporate VEAC into a new Natural Resource & Catchment Council.

This recommendation has alarmed some environmental groups, who believe that VEAC will become an advisory body, acting on instruction from the government.

VEAC, and its predecessors, have been instrumental in the creation of Victoria's world class national parks and conservation reserves.

For those who consider the independence of VEAC to be under threat, the Victorian National Parks Association have instigated a petition to the Premier and this can be accessed at:
www.vnpa.org.au

Land For Wildlife

Land for Wildlife is a voluntary scheme, which aims to encourage and assist private landholders to provide habitats for wildlife on their property, even though the property may be managed primarily for other purposes.

The Land for Wildlife scheme can offer advice on the many important values of native vegetation, and how it may be retained, restored or re-established as well as advice on fauna occurring on or around the property, its particular ecological role and needs. Members receive a free newsletter and opportunities for contact with other landholders interested in nature conservation and sustainable management of their property.

Kylie Dixon is our new Land for Wildlife Officer and has taken over from Elspeth Swan who has moved to Trust for Nature. Kylie will be our first guest speaker in our Biodiversity Lecture Series and will talk about the advantages of participating in this program (see back page). The easiest way to get more information is to visit the DSE website at **www.dse.vic.gov.au** and type *'land for wildlife'* in the search box at the top right of the DSE home page.

The forgotten kingdom – discovering the Wombat's charismatic mycota

By Alison Pouliot

Scientist Alison Pouliot with freshly picked chanterelles.

Mention the word fungi to most people and what comes to mind are images of mildewy bathrooms, frightening refrigerator decorations, creatures growing in your runners or worse places still! Everybody seems to know a horror story, albeit real or fictional, of agonizing deaths caused by consuming poisonous mushrooms. Fungus the Bogeyman certainly didn't win too many brownie points for fungi either.

While some people delight in edible fungi such as truffles or chanterelles, fungi still don't come close to competing with the so-called 'charismatic fauna and flora' in regard to their protection. Yet if it weren't for fungi, not only the charismatic creatures, but all species would still probably exist in the oceans. In fact, if fungi were to vanish from the planet tomorrow, all life on earth could disappear within decades.

Hypholoma sublateritium is a common Wombat Forest species found growing on old wood. *(photos by Alison Pouliot)*

2010 is the International Year of Biodiversity, yet the 'Third F', as in fungi, are still almost always overshadowed by their flora and fauna counterparts. Despite the beauty, diversity and the fact that fungi underpin the survival of almost every terrestrial ecosystem on earth, they are seldom considered in biodiversity management. Although fungi are tacitly included in most Australian conservation legislation they are rarely explicitly mentioned, with the underlying assumption that protection of flora and fauna will also provide protection of fungi.

Only through extensive research and surveying can we ensure that fungi are being adequately protected under the surrogate of flora and fauna protection.

The listing process is also imperative for fungal protection as funding for research and management is strongly biased toward formally listed species. Given that species level protection is sometimes driven by perceived charisma of species, as opposed to the rationale of their importance in ecosystem functioning, we must work toward improving the profile and interest in fungi.

One approach is to inspire folks to get out there to marvel at the Wombat's forgotten kingdom. Encouraging interest in fungi and environmental issues remains a continuing challenge, but it begins with wonderment and inspiration. Public knowledge about fungi is generally poor in Australia relative to that of many countries. This is reflected in Australia's poor fungal conservation profile, but also in the lack of wild fungi collecting traditions. Interestingly, while not wanting to encourage unregulated fungi collection that could lead to species loss and habitat destruction, low-level regulated wild harvesting could be one way of getting people out there into the forest and potentially boost public awareness about fungi and their conservation. Whether you're interested in collecting, recording, photographing, drawing, learning or just enjoying an autumn stroll amongst the Wombat's extraordinary mycota, you might like to join a fungal ecology workshop. You never know, you might just get hooked!

Clusters of *Coprinus disseminatus* can be found in autumn.

For further information on upcoming workshops, visit the website at:
www.alisonpouliot.com

Peregrine Falcon
(Falco peregrinus)

By Gayle Osborne

An ever watchful juvenile Peregrine Falcon, *falco peregrinus. (photo by Gayle Osborne)*

Wandering along a bush track in the Wombat Forest, about 4k from Glenlyon a bird watcher was buzzed by a Peregrine Falcon. The falcon then perched in a tree and made a continuous harsh chattering noise leading him to the conclusion it that it was probably nesting nearby. Peregrines do not build nests and prefer rock ledges but will also use hollows and large abandoned stick-nests from other birds as well as ledges on city buildings. The obvious candidate for the nest was in the top of a large burnt dead tree (stag) which had lost its entire crown.

In late December Tanya Loos and I went to the site feeling confident that we would not be disturbing young chicks. We found splash (white defecation), feathers and crops (regurgitated pellets containing feathers) at the foot of the stag confirming that this was the breeding site. Hearing a bird call we located a young falcon sitting confidently on a high tree branch. Tanya has reported the nest site to Victor Hurley, President of the Australasian Raptor Association who will visit the site during the next breeding season.

We are very excited to have located this site. Over a number of years I have observed large amounts of splash at the base of a nearby tree and had assumed it had been deposited by an owl and now it appears that a Peregrine falcon (probably the female) uses this tree as a roost throughout the year.

Peregrine Falcons are found throughout Europe, parts of Asia, Africa, America and Australia however Australia has one of the few secure continental populations in the world. Their breeding is threatened by the loss of hollow bearing trees, particularly in woodlands and along the Murray River and the loss of wetlands which attract birds and provide a rich food source. Peregrine Falcons are found in a large variety of habitats, woodlands, forests, open country and wetlands but not in the treeless, waterless deserts.

With a body length of 35-50cm and a wingspan of 80-105cm, the Peregrine's flight is powerful, swift and direct. It is often seen high in the sky soaring for long periods or floating on wind currents.

They attack their prey at high speed, often nearly vertically, in a diminishing spiral with partly or nearly fully closed wings and can reach speeds of more than 300 km per hour when swooping on prey, and are probably the fastest creature on earth. They will also hunt as low as one meter above the ground, vegetation or water.

They are one of the swiftest and deadliest of the birds of prey and were preferred for falconry by the ancient Egyptians and Chinese.

Peregrine Falcons mainly take their prey in the air favouring flocking birds such as Galahs and introduced pigeons, particularly racing pigeons. Sadly there are a few people who will shoot the falcons to protect their racing pigeons. Peregrine Falcons will also hunt small mammals and insects.

Pairs may hunt co-operatively, usually during the breeding season with one member, normally the male, scattering a flock of birds while the other swoops down to attack a particular individual.

The Peregrine Falcon, like other birds of prey, is relatively long lived, with low reproductive rates and a low population density. Adult have been recorded breeding into their twentieth year however 90% of young die in their first year. They are listed as 'rare' in Australia and 'vulnerable' in Victoria. Since 1971 all Australian raptors have been protected by legislation.

References:
Handbook of Australian, New Zealand & Antarctic Birds, Ed: S. Marchant & P.J. Higgins

http://www.ausraptor.org.au/vpp/Reports2001/peregrine_info_sheet01.html ■

Ecological Vegetation Classes of the 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. These distinct native vegetation types are called Ecological Vegetation Classes (EVC's). Approximately 30 different EVC's have been mapped in the Wombat Forest.

Grassy Dry Forest (EVC 22)

Grassy Dry Forest occurs in the drier areas of the Wombat State Forest where rainfall is less than 700-800mm per annum. Within the region it mainly occurs west of Muskvale/Sailors Falls and north west of Denver. Dry Grassy Forest also has scattered occurrences in the northern areas of the Wombat Forest, often in association with Heathy Dry Forest.

Grassy Dry Forest generally occurs on moderately fertile soils derived from Ordovician shales and sandstones. It is more common on sheltered aspects, on steep or gentle slopes. The overstorey is a low Eucalypt forest 15-20m tall. Trees may grow in a spreading 'woodland' form.

Common overstorey tree species include Messmate *(Eucalyptus obliqua)* and Narrow-leaf Peppermint *(Eucalyptus radiata).* Other species that may be present include Mountain Gum *(Eucalyptus dalrympleana),* Scent Bark *(Eucalyptus aromaphloia),* and Broad-leaf Peppermint *(Eucalyptus dives).* The small tree Silver Wattle *(Acacia dealbata)* may present as an understorey plant.

There is generally a very sparse shrub layer, and in some cases no shrubs at all. Shrubs that may be present include Austral Indigo *(Indigofera australis),* Common Heath *(Epacaris impressa),* Common Hovea *(Hovea hetrophylla)* and Honey Pots *(Acrotriche serrulata).* In some areas fire may encourage dense stands of Narrow-leaf Bitter Pea *(Daviesia latifolia).*

The ground layer is dominated by a range of grasses and herbs, however in dry periods many species retreat to rootstock or soil-stored seed. More common grasses include Silvertop Wallaby Grass *(Joycea pallida)* and Grey Tussock-grass *(Poa sieberiana).* Other grasses include Plume–grasses *(Dichelachne spp),* Weeping Grass *(Microlaena stipoides var. stipoides)* and Wallaby Grasses *(Austrodanthonia spp.).*

Other groundflora species include Wattle Mat-rush *(Lomandra filiformis),* Common Raspwort *(Gonocarpus tetragynus),* Variable Plaintain *(Plantago varia),* Black-anther Flax Lily *(Dianella revoluta),* Blue Pincushion *(Brunonia australis),* Showy Podolepsis *(Podolepsis jaceoides),* Yam Daisy *(Microceris lanceolata),* Purple Coral-pea *(Hardenbergia violacea),* Cotton Fireweed *(Senecio quadridentatus)* and Magenta Stork-bill *(Pelargonium rodneyanum).* Austral Bracken may dominate is the area has a history of disturbance.

A good example of Grassy Dry Forest EVC. *(photo by Murray Ralph)*

Common weed species include Cats Ear *(Hypocharis radicata),* Large Quaking Grass *(Briza maxima)* and Delicate Hair Grass *(Aira elegantissima).* ■

Newsletter articles (and suggestions) are always most welcome. For more information please contact **Tibor Hegedis** by emailing to **newsletter@wombatforestcare.org.au**

For help with orphaned or injured animals, please call the 24 Hour Wildlife Emergency Number on **13 000 WILDLIFE** (that's **13 000 94535**) or Hepburn Wildlife Shelter on **03 5348 3932**

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Certificates of Recognition

In February, members of the search team for the Wombat Leafless Bossiaea, *Bossiaea vombata* were presented with "Certificates of Recognition" by Grant Hulls, DSE Group Manager, Biodiversity Services for South West Victoria.

A picnic morning tea was held at the site in perfect weather and gave us the opportunity to discuss issues with DSE Flora & Fauna staff.

A highlight of the day was the attendance of Neville Walsh, Senior Conservation Botanist with the Royal Botanic Gardens.

Recently the area was subjected to a fuel reduction burn and the presence of the bossiaea meant that a large exclusion zone was created to protect it. This zone also protected a gully with populations of the rare Wiry Bossiaea, *Bossiaea cordigera* and the Screw Fern, *Lindsaea linearis*.

If the Leafless Bossiaea had not been discovered, this area would have been within the burn. This highlights one of many of the issues we have raised with DSE with regard to fuel reduction burns.

At present DSE rely on inadequate records of endangered and vulnerable species when planning burns and little or no consideration is given to species likely to occur. ■

Neville Walsh and Emerald Dunn looking over the area where Wombat Leafless Bossiaea, *Bossiaea vombata* was found.

Take a walk in tall forest - Werribee River and Carroll's Spring

by Judy Weatherhead

Grade: Easy
Distance: 6 kms

Travel south from Daylesford on the Ballan Road to Spargo Creek. About one and a half kilometres south of Spargo Creek turn left onto the Blakeville-Bunding Road. Two kilometres along you arrive at the Werribee River Picnic ground where you can park your car. This area is the habitat for the greater glider.

Set off east on the road and cross the bridge. Turn left onto a foot track marked Werribee River Walk and climb up above the river. Continue along this track through tall forest over-looking the river on the left. You will reach a short detour on the right to Carroll's Spring on the edge of a clear area.

Return to the track and continue along the riverbank to the 'rapids' where you can cross the river to the western bank. Follow the left hand track keeping to the river until you reach the picnic ground and your car.

Biodiversity Lecture Series - You, Me and Biodiversity: A Wombat Forestcare Initiative.

To commemorate the International Year of Biodiversity, Wombat Forestcare has organised a series of lectures throughout 2010. The first lecture is on May 8th at the Daylesford Neighbourhood House. The guest presenter is Kyle Dixon, Biodiversity Officer with the DSE, to speak about the Land for Wildlife program and planting your garden as habitat for birds. The overall aim of the series is to explore biodiversity in our local setting, how we are all part of a dynamic circle of life and what participants can do to protect and enhance biodiversity.

For further information visit our website at **www.wombatforestcare.com.au** and to book contact Daylesford Neighbourhood House on 03 5348 3569. ■

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, phone: 03 5348 7558 or email: info@wombatforestcare.org.au - Membership Fees are only $10 Single and $15 Family.