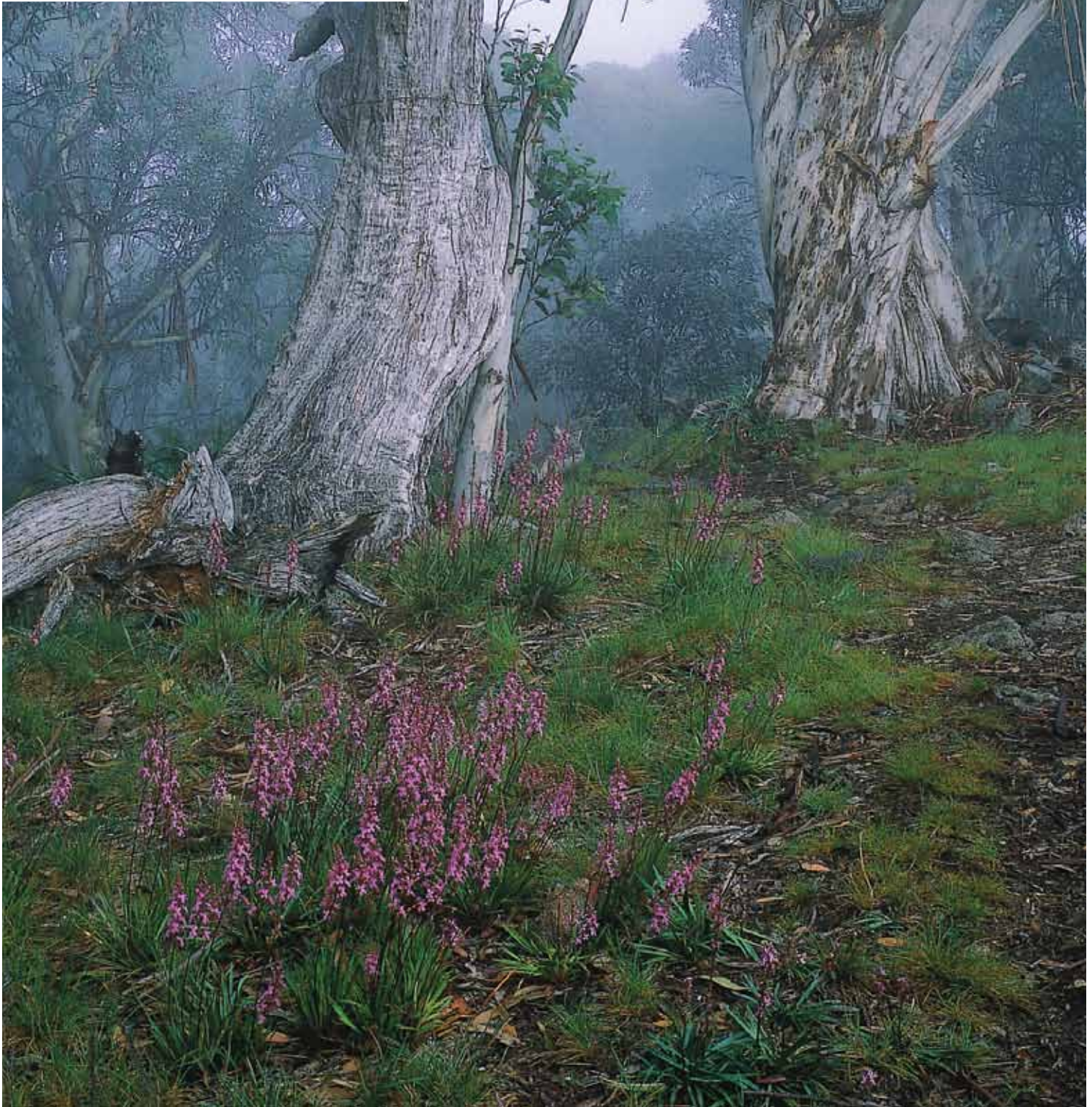


PARK WATCH



CATTLE 'TRIAL' ON TRIAL
GROW WEST AND HINDMARSH
MARINE AND COASTAL UPDATES
SAVING LEADBEATER'S POSSUM
PARKS AND HUMAN HEALTH
ROYAL PARK
OUTDOORS VICTORIA

JUNE 2014 NO 257



**VICTORIAN
NATIONAL PARKS
ASSOCIATION**
Be part of nature



Be part of nature

PRESIDENT Russell Costello
DIRECTOR Matt Ruchel

Level 3, 60 Leicester St, Carlton, VIC 3053
ABN 34 217 717 593
Telephone: (03) 9347 5188
Facsimile: (03) 9347 5199
E-mail: vnpa@vnpa.org.au
Web: www.vnpa.org.au

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We share a vision of Victoria as a place with a diverse, secure and healthy natural environment cared for and appreciated by all.

EDITORIAL COMMITTEE

Matt Ruchel, Philip Ingamells, Michael Howes.

ADVERTISING

Emily Clough, Emily@vnpa.org.au

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You're always welcome to contact the editor to discuss ideas for articles. Phone the VNPA or email michaelh@vnpa.org.au. Articles may be submitted by email, on disk or as hard copy. Include your contact details and brief biographical information. Photos, maps and drawings are needed too. Digital photos should be 300dpi and around 8cm by 12cm.

COPY DEADLINE for September 2014 *Park Watch* is 4 August 2014.

DESIGN Mary Ferlin **PRINTING** Adams Print

FRONT COVER

Snow Gum woodland, Bogong High Plains, Alpine NP. See cattle trial article page 4. Photo by David Tatnall.

BACK COVER

Children encircle one of the nine giant ironbark 'elders' of the Wellsford Forest near Bendigo. See story page 29. Photo by Sue Fraser.

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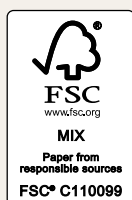
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From the President

Standing up for parks

By now, you would be aware that your VNPA has taken action in the Supreme Court against the Victorian Government's cows in the Alpine NP.

We are taking this action in partnership with Environmental Justice Australia (formerly Environment Defenders Office). I thank them for their support.

In these difficult times, it's not a thing we take lightly or wanted to do. We would rather work constructively with government as we have in the past, to deliver positive outcomes such as those in our soon-to-be-released ten-yearly Nature Conservation Review.

With the State and now the Commonwealth slashing community environmental grants, so that now they contribute a negligible amount to our budget, there has never been a time that we have relied more on you, our supporters,

We are always extremely grateful for whatever support you can give, no matter how much or how little.

Victorian environment minister Ryan Smith labelled our court action 'a stunt'. I can assure you that is not the case. We are very serious about standing up for national parks and nature.

We are after all the National Parks Association. Our first purpose under our constitution is "Promoting the establishment and appropriate management, in perpetuity, of an extensive, fully representative and ecologically healthy system of National Parks and other protected areas".

Everyone knows this cattle grazing is not science or research, but a shabby political payback for 2010 electoral support in East Gippsland – a domestic version of Japanese 'scientific whaling'.

From my memory of forty years' service to Victorian conservation, this is the first government of any persuasion for which I can't think of a single significant positive outcome for the natural environment. A lot of spin, but little action other than backward steps.

They've achieved plenty of negatives. Aside from the cattle, they've tried to effectively 'sell' parts of national parks to big business by legislating new 99-year leases.

They've slashed funding for Parks Victoria and other biodiversity programs, and loaded any remaining rangers with the office work once done by support staff.

They tried to recommence commercial logging in the red gum parks, disguised as 'environmental thinning', and continue to log critical Leadbeater's Possum habitat, so scarce after the 2009 fires.

The state's native vegetation clearing controls have also been watered down, with the new 'No Net Gain' rules based on computer-generated rubbish maps and Mickey Mouse offsets. The list goes on.

In a previous *Park Watch*, I contrasted the lack of environmental achievement of this Coalition government with the many achievements of the Bolte, Hamer and Kennett governments. Yes, Kennett!

I'm not alone in condemning the performance of this government and its environment minister. A recent survey of 624 environmentally active Victorians showed a deep dissatisfaction with the Napthine Government's performance on environmental issues.

More than 97% of those surveyed rated its performance as poor (66% 'very poor', 31% 'poor'). Less than 1% rated Ryan Smith as a 'good minister'. 10% rated him as 'average', 61% as 'not very good' and a whopping 28% as the worst environment minister Victoria has ever had.

More than 90% said environmental issues would be very important when they line up to vote at the state election in November this year.

The Commonwealth is slashing funds to the State and public concern about poor environmental management in Victoria is on the rise. If the Napthine Government does want to achieve something significant and positive for the environment, it's certainly starting from a long way back.

At the 2010 election, the Coalition failed to release an environment policy at all, and ALP policy on the natural environment was tarnished by misguided plans focused on shooting.

The natural environment is a key state government responsibility. We need strong and comprehensive policies from all political parties. • PW

Russell Costello, VNPA President



From the Editor

Politicians have been making negative comments about parks lately. So in this *Park Watch* there are stories about the values of parks as well as articles on conservation issues.

In future editions we'll look more closely at the biodiversity and economic values of parks, but it's worth noting that Victoria's parks contain examples of 93% of the state's native flora species and 86% of its native fauna species.

Each year around 35 million visitors go to Victoria's national parks, and 16 million to metropolitan parks. These visitors generate some \$2 billion for the state's economy and help support over 40,000 jobs around Victoria.

Parks Victoria manages 4 million hectares,

or 18% of Victoria's area: 45 national parks, 26 state parks, 60 other parks (regional, coastal, historic, etc), 30 metropolitan parks and 2700 reserves. It also manages 80% of our coast, 13 marine national parks and 11 marine sanctuaries.

The parks have many other values too, as you'll discover inside.

Many thanks to all our contributors to this *Park Watch*. Feedback, letters and new contributors are always welcome! • PW

Michael Howes



PHOTO: COLIN TOTTERDELL

Alpine Marsh Marigold threatened community, Bogong High Plains. This plant community is not in the Wonnangatta Valley, where the grazing trial is being held, but is a feature of the High Plains where cattle could, perhaps, be returned. The government's long-term intentions remain unstated. This photo was taken by celebrated alpine botanist the late Colin Totterdell.

CATTLE 'TRIAL' ON TRIAL

VNPA PARKS PROTECTION CAMPAIGNER **PHILIP INGAMELLS** EXPLAINS WHY THE VNPA IS TAKING LEGAL ACTION TO (WE HOPE) END ALPINE GRAZING.

The Victorian National Parks Association is challenging the Victorian Government's alpine cattle grazing 'scientific trial' in the Supreme Court.

And contrary to Environment Minister Ryan Smith's claim that it's just an 'attention-seeking stunt', we are taking this action very seriously indeed.

First and foremost, Victoria's National Parks Act protects all plants and animals in the parks, not just threatened species and communities. This level of protection is recognised in national park legislation around the world. Indeed the international Convention on Biological Diversity (which Australia ratified in 1993) stresses the important role national parks play in the:

"...protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings."

In other words, if we are to allow for the long-term well-being of our great natural heritage, we have to seriously protect whole ecosystems in viable areas, not just take action here and there to avoid problems for threatened species.

Cattle grazing has long been recognised as damaging to alpine and sub-alpine ecosystems, so it's fundamentally not an appropriate management tool in a national park. That *should* be the end of the argument.

But the cattlemen are now claiming that bovine grazing is a sensible way to

reduce fire in the park, an argument that seems to have taken prominence since their other arguments have been seen to have failed.

But the evidence is already against them here too.

Fire has raged across the alps on many occasions when grazing was widely in place, most notably in the 1939 Black Friday fire, the 1998 Caledonia fire and the 2003 alpine fire. The 2006 alpine fire took place when cattle grazing had been removed completely from the Alpine National Park, though adjacent areas outside the park were still heavily grazed.

A very clever peer-reviewed piece of research into grazing and fire in the Victorian alps was published in 2013. It took advantage of the fact that the 2003

and 2006 fires collectively burnt over 90% of the Victorian section of the alps, including 99% of those areas which were licensed for grazing. In addition, remote sensing (satellite) data was available for both fires. This was a rare chance to see how grazing *actually*, not theoretically, affected high country bushfires.

The results of the study show that cattle grazing did not significantly reduce fire in the alpine region of Victoria. Indeed there was evidence to suggest that grazing *increased* fire severity in areas where it encouraged shrub growth.

There are a number of other studies that shed light on this issue but, as far as we can ascertain, the scientists who have done this work had not been consulted by the Victorian Government when it made its decision to attempt a cattle grazing and fire trial in the Alpine National Park.

This is particularly odd, given many statements by members of the government that understanding the contribution of cattle grazing to fire management is important for public safety.

When the current government came to power at the end of 2010, it rushed the cattle into the Alpine National Park in its first, failed attempt to run the trial. Since that time, including the most recent version of the trial in the Wonnangatta Valley, we estimate it has invested well over \$1,000,000 of public money in the project.

Yet there is still no scientist prepared to put his or her name to the trial, no identifiable peer review process, and indeed no clearly articulated gap in our knowledge that the trial is designed to answer.

And we have been given no reason why the trial, if it must take place at all, should take place in the Alpine National Park.

Somehow this expensive experiment, while being trumpeted as important fire research, is also celebrated as a return to the cattlemen's grazing heritage, a heroic return of the Man from Snowy River.

Fire is an important issue in Victoria, which is why fire management should be based on very good evidence. It should not be used as a

political football game, with special interest 'teams' facing each other off.

Park management, too, should be spared political interference.

The VNPA, in challenging the government in the Supreme Court, is simply asking that we return to appropriate management of the Alpine National Park according to its clear objectives as listed in the National Parks Act: the protection of flora and fauna.

While solidly backing the trial, the government has been unclear about what it intends as a future for grazing in the park. The Victorian people deserve to know, before the November election, exactly what is planned.

And it is high time the Victorian Government acknowledged the importance of national parks in protecting our great natural heritage. It's time they came up with a clear strategy, backed by real action and secure funding, to do that. • PW

Read more – see 'Alpine cattle grazing' page 24.

New tracks pose development risks

The long-proposed *Falls to Hotham Alps Crossing* track is back on the drawing board, and the *Grampians Peaks Trail* is well advanced in its planning.

Both tracks, which feature in *Victoria's Trails Strategy 2013-23*, are geared towards commercial tour operators and dependent on built infrastructure, such as huts and other shelters.

The route of the Alps crossing track (approx. 25 km) is still undecided, but the requirement of an 'experience' together with the comfort of serviced huts is making planning problematic.

The more advanced 140 km Grampians track takes hikers north to south through the park, with walkers doing all or part of the track at any time.

Both walks are planned to use a mixture of existing and new tracks, and involve the contentious issue of private facilities along the tracks. In the case of the Grampians proposal, this could involve building accommodation on the Major Mitchell Plateau, a designated Remote and Natural Area.

Potentially the projects could see an improvement in track alignment and structure. But they could also lead to 'development creep', with private investors claiming a need to increase facilities over time.

Watch this space.

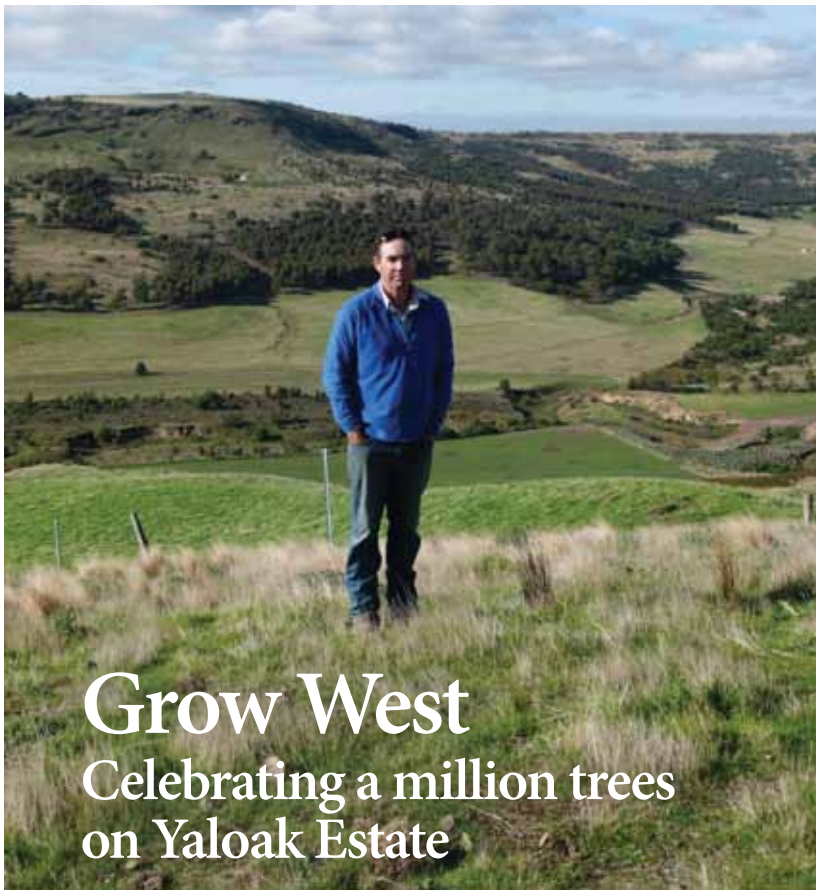
Please support us!

We really need your help to fund the legal case and our 'Hands Off our Parks' campaign. With your support we can challenge the Victorian Government's reintroduction of cattle grazing to the Alpine National Park, and work towards stopping our national parks being used for commercial development and other damaging activities.

To donate, please:

- Phone 03 9347 5188 (to donate by credit card)
- Send a cheque to VNPA, 60 Leicester St, Carlton, VIC, 3053
- Visit www.donate.vnpa.org.au

Any and all contributions are very welcome, and all donations over \$2 are tax deductible.



Grow West

Celebrating a million trees on Yaloak Estate



PHOTOS COURTESY HELENA LINDORFF

Yaloak Estate Manager John Sheehan on the planting site at the estate.

A number of children and young people enjoy the planting day.

GROW WEST COORDINATOR **HELENA LINDORFF** INVITES VNPA MEMBERS AND FRIENDS TO THE ANNUAL COMMUNITY PLANTING DAY NEAR BACCHUS MARSH IN JULY.



On **Sunday 20 July**, Yaloak Estate will be celebrating the planting of one million trees when it again plays host to the 9th annual Grow West Community Planting Day event.

Grow West, part of the Port Phillip and Westernport Catchment Management Authority, appreciates its partnership with members of the VNPA and their families and friends, and welcomes them to this year's Planting Day, running from 9.30am to 4.30pm. Lunch is provided.

For more information about the day visit www.growwest.com.au, where you need to register for the planting day by **Friday 11 July**.

The planting day helps local communities to be involved in restoring their landscape and assuring a sustainable future.

For the past 10 years, Grow West has assisted Yaloak Estate with a variety of grant incentives for revegetation, farm forestry and remnant protection which have all helped to increase biodiversity in the area, suppressing the serious weed

Serrated Tussock and reducing soil erosion and sediment entering into the waterways.

Yaloak Estate, which hosted a successful Grow West planting day in 2011, is in the Rowsley Valley, 20km south-west of Bacchus Marsh. The 5,200 hectare property carries 13,000 sheep, and this year has 1,000 hectares of wheat and canola crops as well.

With its steep escarpments and deep gullies, the property presents plenty of challenges for Estate Manager John Sheehan.

"This country has excellent cover for rabbits and carries a lot of Serrated Tussock. However, we're deep-ripping areas to remove rabbit harbour and reduce rabbit numbers, and we're planting out degraded areas with trees to help shade out Serrated Tussock, as well as aerial spraying for weeds," John said.

John has joined the Grow West team again, and will fence out some 259 hectares of land so that 56,000 native seedlings can be planted this winter.

In 2012, Grow West was successful in obtaining \$1.39 million from the

Australian Government to revegetate the landscape and help protect and improve hundreds of hectares of native vegetation within the Upper Werribee Catchment. The project, titled 'Brisbane Ranges National Park to Werribee Gorge State Park Biolink' aims to connect the two parks with a corridor of native vegetation and a series of vegetation 'stepping stones'.

Emma Muir is assisting with the coordination of the project, teaming up with me in running the planting day.

"I'm very excited to be part of the team and part of the Grow West vision. We'll be helping John Sheehan plant 6,000 native seedlings on an eroded bank in the Rowsley Valley, and we're keen for the local community, VNPA members and friends, and Landcare group members to join us and help Yaloak celebrate its millionth tree," said Emma.

Emma is also a facilitator for the Pentland Hills Landcare Group, which hosted a Grow West Community Planting Day on David Muir's property near Myrniong in 2012. • PW

For more information about the day visit www.growwest.com.au to register by 11th July.

Hindmarsh planting weekend 2014: improving habitat

ECOLOGICAL CONSULTANT CHRIS LINDORFF, HUSBAND OF GROW WEST'S HELENA, DESCRIBES THEIR PROPERTY, ABOUT 15KM WEST OF RAINBOW IN NORTH-WEST VICTORIA, WHERE THIS YEAR'S PROJECT HINDMARSH PLANTING WEEKEND WILL TAKE PLACE.

The 235 acre property site adjoins Outlet Creek, and is between Birdcage Flora and Fauna Reserve and Weddings Reserve. We purchased it in 2010 and are still gleaning useful information about its history from the locals.

The vegetation is predominantly Desert Yellow Gum woodland, with scattered areas of mallee woodland and dune heathland. Much of the property was cleared for farming, although its value for farming is marginal.

There has been no long-term intensive farming, and native vegetation has regrown in cleared areas. However, Yellow Gum and mallee eucalypts have not recolonised, and will be a focus of the planting weekend.

The soil is light sand, increasing in depth towards the dunes. Yellow Gums grow in the shallow sand, rooting down into the clay profile beneath.

Mallee eucalypts include Yellow, Dumosa and Slender-leaf Mallee. Both Slender and Scrub Pine are present, with larger shrubs such as Silver and Desert Banksia, Fringe-myrtle, Slaty Sheoak and more. Wattles include Grey Mulga and

Come to the 2014 Hindmarsh planting weekend!

15-17 August 2014

This year sees an exciting new location for the 17th annual Hindmarsh planting weekend. Instead of the familiar Little Desert Nature Lodge, we'll be based at Rainbow and putting in 15,000 plants at the Lindorffs' property.

Bus transport from Melbourne and back will be available as in previous years. Three meals will be provided to participants on the Saturday, and two on the Sunday. There will be entertainment on the Saturday night.

Free camping will be available at the Rainbow Recreation Reserve, and the town has two hotels, a motel and a caravan park. There's more accommodation at Jeparit, 30 km from Rainbow, and Hopetoun (45 km).

This year we'll be planting only on the Saturday, so on Sunday there will be bus tours, including one to Wyperfeld NP.

For more information, and to register for the weekend, see www.hindmarshlandcare.org.au

You can also email hln@hindmarshlandcare.org.au or phone Steve Hemphill, local Landcare Facilitator, on **0429 006 936**.

The event is supported by the ACE Radio Network, the Handbury Family Trust, Luv-a-Duck, Victorian Landcare and Wimmera CMA.

Note: on **Saturday 5 July** there will be a Mini Project Hindmarsh Planting Day on the eastern side of Lake Hindmarsh. See website for details.

Umbrella Wattle. A rare Rufa greenhood orchid was discovered last year.

The vegetation in the adjoining reserves is significantly different: Buloke-Black Box woodland in Weddings Reserve, and mainly mallee and pine heathland in Birdcage. This makes the site valuable as a habitat link, for example for the threatened Regent Parrot that nests in large red gums around Lake Hindmarsh, feeds in Buloke and Desert Yellow Gum, and flies into Birdcage Reserve to roost.

Other interesting birds in the area include Malleefowl, Peregrine Falcon, Spotted Harrier, Brown Quail and Splendid Fairy-wren.

Among mammals, Western Grey Kangaroos, echidnas and Brush-tailed Possums are common. Swamp Wallabies are occasional visitors. Motion-sensing cameras are being set up under the VNPA's 'Caught on Camera' project

to monitor fauna before and after the planting.

Past cropping and sheep grazing have brought weeds, particularly African Lovegrass. This invasive grass grows to waist height, and once mature is not a favoured fodder species of stock or native wildlife. It becomes thick and rank, competing with native grasses and herbs.

Fortunately it can't grow under the drip-line of trees, so planting trees and shrubs across the site will not only improve habitat values but also help suppress the grass.

Other problem weeds include African Boneseed, Bridal Creeper (Smilax) and Perennial Veldt-grass. Foxes and rabbits will continue to be a problem, with further control work needed.

We look forward to welcoming you to the property in August! • PW

Colourful bryozoans and sponges,
Pt Addis Marine National Park.

VEAC calls for more marine care

VNPA MARINE AND
COASTAL CAMPAIGNER
SIMON BRANIGAN REPORTS.

The Victorian Environmental Assessment Council's two-year investigation into the performance and management of Victoria's 30 marine protected areas, and the extent to which they meet the purposes for which they were established, confirms the vital role these areas play in protecting marine life.

But it also warns that the reserves are at risk from oil spills, coastal development, marine pests and illegal fishing.

Victoria's network of marine protected areas, comprising 24 marine national parks and sanctuaries that are fully protected, and six multiple-use marine areas, was established in 2002 with cross-party support and after more than 10 years of public consultation.

We must do more to protect our marine reserves, including improving management through targeted research and monitoring, better resourcing, and stronger protection of no-take zones from illegal fishing.

The report, released early in May, heightens the VNPA's concerns that port expansion plans at Hastings will turn Westernport Bay into a super-highway for container ships, creating unacceptable risks to marine life through the increased possibility of devastating oil spills.

Westernport contains three marine national parks and is an internationally recognised Ramsar wetland. Yet the Napthine Government is pushing through a port expansion that will increase the risk of oil spills and marine pest invasions, and lead to substantial dredging and clearing of marine and coastal habitat.

Victoria's marine environment is unique on a world scale, with colourful sponge gardens, sweeping seagrass meadows and deep canyons.

It's home to many fish and plant species found only in our southern waters, but we must do more to protect them.

VEAC's recommendations are a solid starting point for implementing a comprehensive marine plan for all Victorian waters. Now we need to see all political parties back that up with strong marine policies ahead of this year's state election.

In its report VEAC made 38 recommendations, which the Government has six months to consider. They include:

- updating policy and completing planning for management of the no-take areas
- resourcing and priorities for managing the no-take areas and threats, including enforcing fishing prohibitions, managing marine pests and wider marine management
- several recommendations for improving research and monitoring
- improving public reporting and annual interim audits of progress
- an appropriate process to develop biodiversity goals for the multiple-use areas
- better boundary definition and legal status of the multiple-use areas, plus visitor research and monitoring extended into these areas.

"The recommendations are largely around how we can improve the management of the protected marine environments in order to manage current and future challenges," said VEAC Chairperson the Hon. Phil Honeywood.

"It is important that we do what we can to safeguard the marine protected areas well into the future." • PW

PHOTO: MARK RODRIGUE

Bay wonders revealed

REEF WATCH COORDINATOR
WENDY ROBERTS DESCRIBES
MARINE MONITORING IN PORT
PHILLIP AND WESTERNPORT.

With the help of a Port Phillip and Westernport CMA community grant, Reef Watch volunteers and members of the Victorian Field Naturalists Club marine research group have been able to monitor two areas of marine conservation significance and concern in Port Phillip Bay and Westernport.

The San Remo Community in Westernport has been protected under the Flora and Fauna Guarantee Act since 1992. It is an area known for its species-rich assemblage of opisthobranchs ('gills behind', i.e. sea slugs) and bryozoans (colonial marine 'moss animals'), two of which are listed as threatened.

Point Lillias in the western part of Port Phillip Bay is a coastal area fringed with

Westernport: too precious to lose

VNPA MARINE AND COASTAL
CAMPAIGNER SIMON BRANIGAN
UPDATES US ON THE SAVE
WESTERNPORT CAMPAIGN, WHICH
CONTINUES TO BUILD SOLID
MOMENTUM.

The VNPA has recently released three more independent expert reports at public information seminars on the Mornington Peninsula.

The first, prepared by the Australian Conservation Foundation for the Westernport and Peninsula Protection Council, is a preliminary study into the ecosystem value of the bay. A packed audience of over 130 people attended its launch at the Somers Yacht Club on 4 March, with world-renowned ecological economics expert Prof. Robert Costanza the keynote speaker.



PHOTO: JOHN GASKELL



PHOTO: WENDY ROBERTS



PHOTO: WENDY ROBERTS

Clockwise from top left: Spotted Stingaree, Point Lillias; Common Sea-urchin at Point Lillias; Velvet Seastar in seagrass, Point Lillias; Blue Devil and sea-dragon at Pt Addis.

basalt rock platforms and fragile seagrass beds. Stingarees, pipefish, snapper, whiting and school sharks are frequent visitors to this area, which is home to over 70 species of invertebrates, including the temperate stony coral *Culicia tenella* and the common sea urchin *Heliocidaris erythrogramma*.

It is listed as a wetland of international importance as part of the Port Phillip Bay (Western Shoreline and Bellarine Peninsula) Ramsar site.

Volunteers also searched for introduced species at both sites, but only the 'green meanie' crab *Carcinus maenus* was found, at Point Lillias. The Northern Pacific seastar was thankfully not present at either site.

Reef Watch facilitated three community seminars to raise awareness of the significant marine natural values of these areas and to encourage community divers and marine naturalists to document the species at both sites.

Two successful monitoring events were held, and species records and images were uploaded to the Atlas of Living Australia and the Explore Underwater Victoria website.

Ongoing monitoring of these areas will continue to reveal the natural wonders that can be found in both bays. • PW

There's a free Reef Watch seminar at Warrnambool on 21-22 June, discovering the Merri Marine Sanctuary. For details see www.vnpa.eventbrite.com.au or phone 0407 165 125.



PHOTO: MARK RODRIGUE

Westernport has been assessed at a potential economic value of \$2.5+ billion in an unspoiled state. The ACF's Jess Abrahams says it is "far more than just a shipping channel for freight, it's a key green infrastructure asset for Victoria".

Prof. Costanza agreed that the bay is a significant natural capital asset that "provides many of the ecosystem services that support our economy. Those services create an environment for flourishing fish nurseries, regulate nutrients, clean and filter pollution and are the backbone of a thriving local tourism industry, yet these values are rarely quantified in dollar terms."

As a follow-on from the oil spill study that the VNPA released last year, we commissioned two more reports, both assessing the potential impacts of port expansion on seagrass, mangroves and saltmarshes, and the bay's birdlife.

Another capacity audience of over 150 attended an information seminar at Hastings on 15 April for the launch of



PHOTO: ANDREW COX

WPPC President Karri Giles and VNPA's Simon Branigan with Prof. Robert Costanza at the Somers seminar in March.

these reports. Both report authors, seagrass expert Dr Hugh Kirkman and BirdLife Australia's Conservation Manager Dr Jenny Lau, were keynote speakers.

Their main finding was that even a single, moderately-sized oil spill would have severe and long-lasting impacts on Westernport's internationally significant populations of migratory shorebirds, and affect large areas of seagrass, mangroves and saltmarsh.

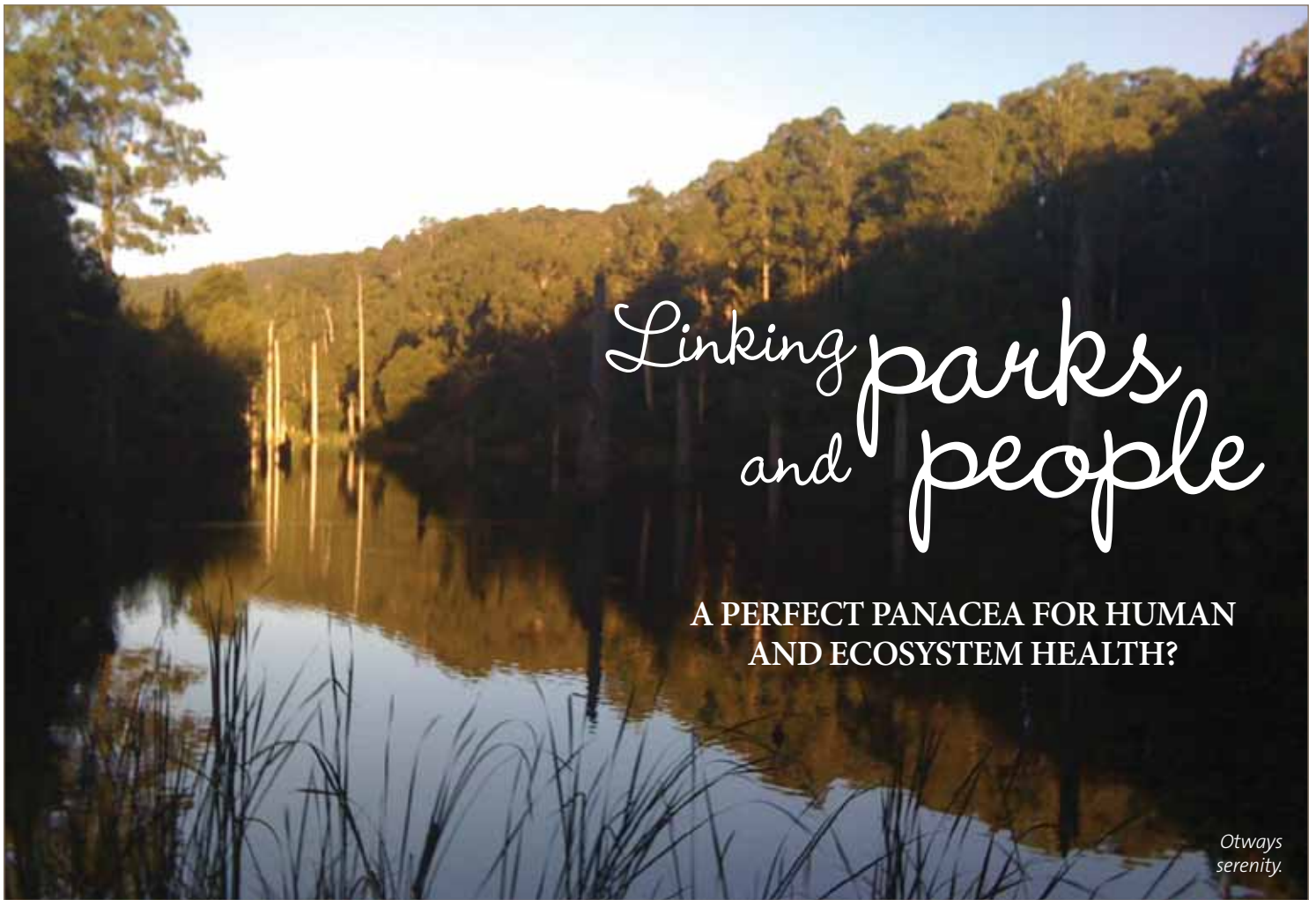
The bay is already under immense pressure, aquatic bird populations

declining significantly in the past 40 years and critical habitats such as seagrass meadows reduced by as much as 60% since 1975.

The port expansion would require substantial dredging for container ships at, and far beyond, Long Island Point Jetty, and the clearing of marine and coastal habitat, including mangroves and seagrass.

The VNPA continues to collaborate with local conservation organisations on the Save Westernport campaign, including a new Phillip Island group, Preserve Western Port, a sub-group of the Phillip Island Conservation Society.

For more information about the campaign, visit www.savewesternport.vnpa.org.au, where you can also sign a petition addressed to federal environment minister and local MHR Greg Hunt. • PW



Linking parks and people

A PERFECT PANACEA FOR HUMAN AND ECOSYSTEM HEALTH?

Otways
serenity.

PHOTO: MARDIE TOWNSEND

DR MARDIE TOWNSEND IS AN ASSOCIATE PROFESSOR IN THE SCHOOL OF HEALTH AND SOCIAL DEVELOPMENT AT DEAKIN UNIVERSITY. HER TEACHING AND RESEARCH FOCUS ON THE HEALTH IMPACTS OF HUMAN CONTACT WITH THE 'NATURAL' ENVIRONMENT, AND OF ECOLOGICAL AND SOCIAL SUSTAINABILITY, AND SHE LEADS RESEARCH ON RELATED TOPICS WITH PARKS VICTORIA AND OTHER ORGANISATIONS.

Over recent years, there has been a growing recognition of the important health-promoting role played by parks, both national parks and more local and small-scale ones.

In 2001, Parks Victoria launched its new catchphrase 'Healthy Parks, Healthy People' (HPHP). For some it was a statement of the obvious, but for others it was challenging.

Those locked into the so-called 'medical model' of health saw human health as deriving primarily from high-quality health services, while some concerned with the protection of ecosystems were alarmed at the risks posed by more people being encouraged into pristine areas.

Both views, of course, have some merit.

Without high-quality and accessible health services, the health of Victorians would be undermined. Likewise, opening pristine areas of nature to large numbers of people (and especially

people unaware of the fragility of those ecosystems) could undermine the health of those ecosystems.

Yet the catchphrase has gained currency. It is now commonly used across Australia and around the world, and has recently been adopted by the US National Park Service to increase "recognition of parks and protected areas (including state, local and regional park systems) as places for the promotion of physical and mental health and social wellbeing".

To achieve this goal, the US NPS has established formal partnerships with more than 50 health service providers and large employers.

Similarly, through its 'Active in Parks' program, Parks Victoria has been working with community organisations including the Council of the Ageing, the Heart Foundation, Conservation Volunteers Australia and Lifesaving Victoria to encourage 'at risk' groups such as youth, the elderly, people

living with a disability and Culturally and Linguistically Diverse (CALD) communities to visit and be more active in parks.

Moreover, the IUCN World Parks Congress being held in Sydney in November has 'Healthy Parks, Healthy People' as one of its eight 'streams'.

So what is the evidence for HPHP, and why is it such an important issue for us to consider right now?

Parks and activity

There is clear evidence that parks encourage physical activity, foster social connections, promote mental wellbeing and provide opportunities for spiritual expression.

Different types of parks are associated with different activities and, therefore, have different benefits. For example, a Finnish study found that, among young people, use of park spaces varied according to the location, facilities and physical characteristics of the parks.



PHOTO: MARDIE TOWNSEND

Like most children (given the opportunity), the author's grandchildren Evie and Oscar love climbing trees.

Local 'activity parks' were used for social and active purposes, the in-between spaces (such as pocket parks and green corridors) as sites for spontaneous and informal activity, and more remote areas as 'fascinating places' suitable for more adventurous activities.

Research has shown that parks, broadly defined to include 'pocket parks' (small localised parks with limited facilities), 'neighbourhood parks' (larger localised parks with a greater variety of facilities) and larger parks including national parks, promote physical activity.

While the effect on physical activity resulting from the availability and accessibility of good quality local parks is not surprising, research in USA has shown that programs to increase community awareness of the health benefits of visiting state and national parks have also contributed to increased physical activity.

The importance of the links between parks and physical activity cannot be overstated, especially in light of research published in 2008 by Medibank Private which estimated the cost of physical inactivity in Australia as \$13.8 billion.

Social and mental health

Other research has demonstrated the value of parks in creating and maintaining social connections, a key determinant of human health and wellbeing. Dutch research shows that urban parks can enhance people's sense of attachment and belonging, and promote social cohesion by facilitating social interactions across different ethnic groups.

My own research, here in Victoria, has confirmed that parks can build bridges between people of different ages, cultures, health and socio-economic status.

Mental ill-health is posing an increasing burden in our society. Here, too, parks play an important role.

Recent Danish research shows that people living within 1 km of a green space are 1.42 times more likely to experience stress than those living within 300 metres. Canadian research has found that nature contact (usually through parks) is a significant predictor of human happiness.

My research ('Feel Blue, Touch Green'), in which people experiencing mental health issues spent time in hands-on nature-based activities in the Anglesea Heathland, found that participants gained confidence, increased self-worth and an improved capacity to manage their stress and anxiety.

Eco-psychologists draw attention to the 'restorativeness' of nature-based experiences, gained through fascination (involuntary and effortless attention), a sense of being away (an escape from pressures), extent (sense of being part of a larger whole) and compatibility (satisfying innate needs and inclinations).

A less commonly recognised aspect of human health and wellbeing is that of spiritual health. Research has shown that spiritual wellbeing may be fostered by 'transcendent' experiences in natural environments, provoking a sense of harmony, freedom and wellbeing.

Although such outcomes have typically been associated with so-called 'wilderness' experiences, recent Japanese research has shown that the holistic use of urban green spaces within the therapeutic treatment of cancer sufferers has resulted in improvements in both their functional and spiritual wellbeing.

But not only do human-nature interactions improve things on the human side of the ledger; they have also been shown to have ecosystem benefits.

The 'Feel Blue, Touch Green' project had the effect of "fuelling participants' passion for the environment". Similarly, recent research in France has shown that participation in urban conservation activity days enhanced people's environmental knowledge, awareness, interest and concern.

And while evaluation of a South African 'Kids in Parks' initiative showed limited behavioural impacts, it nevertheless demonstrated positive impacts on pro-environmental attitudes.

Compelling case

In the current Victorian context, this evidence makes a compelling case for linking parks and people, and for a wider recognition of the many values of parks.

Moves to 'open up' Victoria's national parks for grazing, prospecting and development highlight the importance of mobilising community awareness of these diverse values. The risks of undermining the ecosystem services provided by national parks, diminishing the opportunity for transcendent experiences in nature, and reducing the variety of settings for physical activity and mental health restoration (which cater to the needs of diverse groups), are extremely worrying.

Moreover, in the context of the recent Federal Government budget, with its impacts particularly on lower income earners through reduced accessibility to benefits and increased costs of health care, universal access to high quality nearby nature is crucial.

The VNPA has a critical role to play, along with Parks Victoria and local councils, in ensuring that the community understands and is able to capitalise on (and advocate for) the enormous benefits of a high-quality, sustainable and accessible park system. • PW

the PORT CAMPBELL COAST *Paradise lost?*

MARION MANIFOLD, WHO HAS LIVED AT PORT CAMPBELL FOR OVER 40 YEARS, REPORTS ON A NEW PLAN THAT COULD BRING ABOUT THE DESTRUCTION OF THIS ICONIC COAST'S NATURAL VALUES.

Outside towns like Port Campbell, the coast is supposed to remain undeveloped. But that's not what the new plan says.

Our much-loved coast has recently been subject to yet another consultancy which has environmentalists on edge: a Parks Victoria-led Shipwreck Coast Master Plan aiming to increase tourism stays.

The Port Campbell National Park and Bay of Islands Coastal Park coast is advertised as a top tourism destination due to its spectacular cliffs and scenic hinterland. The Master Plan sees the area as a broad-scale tourism development opportunity.

The Plan has the potential to carve up and destroy almost every section of the narrow 28km of park for tourism development – glamping, camping, exclusive resorts, information centres, cafes, kiosks, bus hubs, bridges, rest areas, shelters and hides – which would destroy the scenic and environmental values that visitors come to see.

Its Stage 4 – the ‘Preliminary Master Plan’ – requires no vegetation or environmental offsets within the parks or on other public land. The suggestion that Landcare groups and volunteers will assist in private land conservation works to ameliorate development impacts within the parks is an inexcusable cop-out, and irrelevant to the environmental impacts that the Plan will have on countless sites within the parks.

Limited brief

It appears that the Plan's brief was limited in scope, and it does not satisfactorily consider how it will protect this environmentally sensitive landscape, despite its first objective being to ‘Conserve and protect the national, coastal and marine parks’.

The Plan suggests that to create a sustainable tourism product, traffic on the Great Ocean Road needs to be reduced by dramatically slowing speeds to 60 and then 40 km/h to encourage other modes of transport, such as shuttle buses, bicycles and walking. It also recommends the use of a traffic bypass on two small local roads a few kilometres inland.

This is an interesting concept, but the community is not convinced it will work, as most visitors want to see the coast. The other roads are inadequate for large amounts of traffic and are not likely to be upgraded, and tourists see plenty of non-coastal views on their way to and from Melbourne. It may just make for frustration for both tourists and locals. In any case, there does not appear to have been consultation with landowners on these routes.

It is recognised that Port Campbell's tourism is unsustainable. The Plan

suggests the 5km wide coastal strip is a ‘regional’ solution which will assist the ‘regional economy’, but many locals believe the best way to improve tourism stays is to promote the attractions of a wider SW regional tourism product – Camperdown, Warrnambool, Port Fairy, Glenelg, Grampians and the many other smaller towns.

Bold developments?

The option is given for developments to be up to three storeys high and to ‘sit boldly in the landscape’. This is contrary to all planning policy for this coast, which states that development must be low-scale and screened by the low-lying indigenous vegetation.

The Plan encourages private development in the parks, but there is already plenty of land within towns, and ten large sites zoned for tourism by a 2012 planning amendment (C30) in which Corangamite Shire Council and Minister for Planning Matthew Guy went against the community's and the planning panel's advice.

In proposing a private resort on the historic and environmentally sensitive Rifle Range (Commonwealth land) set in the park just west of Port Campbell, the Plan oversteps its boundaries. In any case this is unnecessary, as there is already a



Fragile wildlife corridors could be disturbed and disrupted.

PHOTO: MARION MANIFOLD

MORE INFORMATION

Marion Manifold is Secretary of the Port Campbell Community Group Inc, which works to protect and conserve the area's environment and biodiversity. The Group monitors threatened species with remote cameras and was granted \$25,000 via Coastcare for expert reports and educational programs on the Southern Brown Bandicoot. For more information, email Marion at mmanifold@anson.com.au



PHOTO: MARION MANIFOLD



PHOTO: HAYLEY DAVIS

TAKE ACTION

To see the Plan and comment, go to www.shipwreckcoastyourplan.com.au or comment via email to Parks Community Engagement, andrew.shannon@parks.vic.gov.au

A bridge is proposed at the mouth of the Sherbrook River. What?!

Above: Southern Brown Bandicoots are just hanging on in Port Campbell.

major tourism development site rezoned on the north side of the Great Ocean Road adjacent to this area.

There are other major problems with the Plan, including failing to consider climate change impacts like sea level rise and storm surges. Many of the proposals, such as golf courses and club rooms on low-lying areas, wetland boardwalks and cliff-top viewing tracks and platforms, may soon be unfeasible.

No protection

The Plan contains no protection measures for national park flora or fauna. Most recommendations will significantly impact on wildlife corridors, critical habitat and threatened species. The consultants' limited environmental research and lack of understanding of biodiversity are shown by their referring to the endangered Southern Brown Bandicoot as the Brown Nosed Bandicoot. No such animal species is known!

Tracks will dissect significant wildlife corridors and habitat, and a proposed clifftop walk from the Twelve Apostles car park to Gibson's Steps is unnecessary as there is already a walk in this section on the north side of the Great Ocean Road.

Hides, pods and glamping will all add unnecessary development clutter on a

landscape that is supposed to have its wild, untouched landscape values preserved. These facilities are unnecessary, as all walks are close to towns, and there are four local camping sites.

Shelters are proposed at major lookouts such as the Twelve Apostles, purportedly for the few visitors who complain that they could not take a good photo due to the extreme weather. But experiencing the elements is what the Port Campbell coast is about!

Too much is expected of this national park, and not enough is returned. The parks are always short-staffed, and worse, the Plan suggests moving the park office away from the centre of town, where the staff are part of the community, to a storage depot in the backblocks.

Aghast

One of the Plan's few good suggestions is resurrecting the now closed Glenample Homestead, but the community is aghast at its recommendations for a tiered structure (like those in swimming stadiums) along the Port Campbell bay cliffs; a bridge at the Sherbrooke River mouth; a massive tourism ramp at Loch Ard Gorge; a large viewing deck on Peterborough's sand dunes and a private sector café on its town green; more

large car parks (with meters); permits to enter the park; and private sector tourism development in the national park.

In Port Campbell township similar problems abound. The community has won the first round against the Southern Ocean Beach House, a 10-year campaign against a huge development on the cliff edge, but is waiting to see what the new owners propose.

A VCAT decision to protect a bandicoot nesting site appears to have been contravened, with the council so far shirking responsibility. A poor council and VCAT decision will allow a dwelling on the land to sit high on the headland, overlooking the walking track and heritage Beacon Steps, and there is the potential for significant headland Crown land bandicoot habitat to be cleared for bushfire safety.

Other than these issues, the short stretch of coast has three helicopter landing pads and an airfield. At peak times one can often count five helicopters within sight and hearing.

The promotion of this coastline is out of control, and environmental management is poor, at the expense of the fragile biodiversity and landscape values. Once the landscape values are destroyed, visitors will move on to the next undeveloped place. • PW

The Alcoa power station and coal mine are in the middle of the Anglesea Heath.

Victoria's unsung treasure

THE ANGLESEA HEATH

ANGAIR HAS FOUGHT SINCE 1969 TO PROTECT THE INDIGENOUS FLORA AND FAUNA AND THE DIVERSE NATURAL ENVIRONMENTS AROUND ANGLESEA AND AIREYS INLET. NOW THE SALE OF A LOCAL BROWN COAL MINE AND POWER STATION PRESENTS ANOTHER CHALLENGE, AS ANGAIR MEMBER AND AUTHOR **SALLY WHITE** REPORTS.

PHOTO: CHRIS BULL

Tourists streaming along the Great Ocean Road towards Anglesea sometimes see grey-white plumes billowing from the Alcoa power station.

The power station sits behind the township, on the edge of Alcoa's 7000-plus hectares of leasehold land, 665 of which comprise the open-cut brown coal mine that supplies 40% of the Point Henry (Geelong) aluminium smelter's electricity needs.

In August this year Alcoa will close the smelter, and its licence to generate electricity expires. It plans to sell its Anglesea operations, although an application for extension of the licence is still being considered.

The move has profound implications for jobs, the local economy and the complex and rich biodiversity of an unsung treasure—the Anglesea Heath.

Rare remnant

The Anglesea Heath is a rare remnant of the heathlands that once covered vast areas of Australia. Twenty years ago the Australian Heritage Commission reported that it contained the richest and most diverse vegetation communities recorded in Victoria, a

distinction that earned it a place on the Register of the National Estate.

The heath boasts no fewer than seven different vegetation communities, from the shaded river valleys with their thickets of Scented Paperbark, Manuka and Woolly Teatree to the heathy forests of Brown Stringybark and Messmate and open heaths and woodlands.

In all, the Anglesea Heath has 620 plant species, or about a quarter of Victoria's flora. Eight species are rare or threatened nationally and 20 more are rare or threatened at state level. Two species—Anglesea Grevillea and Anglesea Leek Orchid—are endemic.

The area's wealth of orchid species makes it nationally significant. More than a quarter of Victoria's orchids—over 80 species and five hybrids—have been recorded in the heath. Among them are tiny helmet orchids, delicate greenhoods, colourful sun-orchids and cheerful donkey orchids.

Fauna, fossils and flowers

Wherever there is flora, there is fauna: the mammals, insects, birds, fish and reptiles drawn to the range of

vegetation communities that meet their special needs.

The Anglesea Heath is home to 29 native mammal species. Two of them—the New Holland Mouse and Southern Brown Bandicoot—are nationally endangered. Other rare species, such as the Swamp Antechinus and White-footed Dunnart, find food and shelter in the moist river valleys or the sweeping heathy woodlands.

The sky, the trees and the understorey support more than 100 bird species, including the Grey Goshawk, Powerful Owl, the rare Rufous Bristlebird and a host of honeyeaters. In the swamps and tributaries of the Anglesea River live the vulnerable Swamp Skink and Warty Bell Frog, the Southern Pygmy Perch and Spotted Galaxias.

But the Heath has more than its visible treasures. Under its surface lie clues to the time when—40 million years ago in the Eocene epoch—the coal that fires today's power station formed. In pre-history's layers lie fossils that tell the story of the wet tropical landscape of the time. Leaf and flower fossils found on the site are the earliest known remains of an Ebenaceae tree species, whose modern relatives are found almost exclusively in the tropics.



PHOTO: MARGARET MACDONALD



PHOTO: MARGARET MACDONALD



PHOTO: HELEN TUTT

The endemic *Anglesea Grevillea* (*G. infecunda*) shown above and (right) *Anglesea Leek-orchid* (*Prasophyllum* sp).

Left: Heathland spectacle – pink and white heath in flower at Anglesea.

The Heath's archaeological sites bear witness to its historical and spiritual significance for the local Wathaurong people. And today a visitor can find peace in a place where the sense of remoteness and natural values is a far cry from the bustle of Melbourne, barely 100 kilometres away.

Many of the thousands of visitors who contribute so much to Anglesea's economy are unaware of the Heath's significance because its beauties change daily. Locals recognise that first-time visitors to Anglesea Heath may not be aware of the brilliance that can transform its sometimes drab exterior.

The different seasons bring carpets of red, pink and white Common Heath, the gold and red of bush-peas, and the blue tints of the buds of Victorian Smoke-bush. There are grand distant vistas and, close at hand, tiny ground-hugging plants.

How has the jewel of the Anglesea Heath managed to survive more than 50 years of mining, the pressures of growing resident populations and tourist traffic, feral animals, weeds and the devastating effect of the root-rot water mould *Phytophthora cinnamomi*?

Protecting the Heath

Although the lease exempted Alcoa from statutory provisions that protect the integrity of national parks, the interested parties got together in the 1990s to discuss the Heath's future. The result was the Anglesea Heath Management Plan.

Alcoa, Parks Victoria, academics and representatives of community groups—which included the 45-year-old local conservation group ANGAIR—all helped develop the plan that was incorporated in a landmark agreement struck in 2002. Since then the management of the Anglesea Heath has rested jointly with Alcoa, Parks Victoria and the Department of Environment and Primary Industries.

The agreement was Australia's first example of an explicit partnership between a conservation agency and a mining company to manage an area so that its biodiversity could be safeguarded. The standard of care adopted was that of the International Union for the Conservation of Nature's description of land that is in essence a national park, to be managed mainly for ecosystem conservation and recreation.

Fast forward to Alcoa's decision to close its Point Henry smelter and consequently sell its Anglesea operation. The announcement

has caused debate and division in the town, with protesters against the power station and mine demonstrating in the township.

ANGAIR president Helen Tutt acknowledges that aspects of the coal mine do worry some locals. Emissions from an ageing power station are a particular focus. But it is the ongoing management of the Anglesea Heath that most concerns her and ANGAIR because of the organisation's specific mission. Any new owner would have the right to extend the footprint of the mine beyond the current area, a possibility that is a real fear.

"The Anglesea Heath is unique. It is Victoria's secret treasure. We hope that the co-operative approach to biodiversity protection that has been working so well to protect the heath in recent years will continue, whatever the outcome of the sale," she says.

"The Anglesea Heath is much too precious for Victoria to lose." • PW

WILDFLOWER SHOW

Don't forget Angair's annual Wildflower Show at Anglesea, 20-21 September!

PHOTO: ELLINOR CAMPBELL

BANDICOOT BATTLES



PHOTO: HAYLEY DAVIS

THE VNPA AND LOCAL GROUPS HAVE BEEN CAMPAIGNING TO PROTECT THREATENED SOUTHERN BROWN BANDICOOTS IN SOUTH-EAST MELBOURNE BY THE ESTABLISHMENT OF HABITAT CORRIDORS. VNPA EXECUTIVE DIRECTOR **MATT RUCHEL** REPORTS.

*Southern Brown Bandicoot
(Isoodon obesulus).*

Recently, local Cranbourne people and the VNPA presented a petition with over 1500 signatures calling on federal environment minister and Member for Flinders Greg Hunt to reject a Victorian Government plan which would remove plans for Southern Brown Bandicoot habitat corridors in an urban development area.

As part of the final approval process for the urban growth plans, Greg Hunt is responsible for signing off on a sub-regional species strategy for the bandicoot. His electorate of Flinders also happens to contain a large proportion of the Melbourne area's remaining population of bandicoots.

Disappointingly, the Minister has exempted himself (citing a 'conflict of interest' because the issue is in his local electorate) from his ministerial responsibilities to protect this nationally threatened species by delegating the decision on these vital habitat corridors to his Parliamentary Secretary, SA senator Simon Birmingham.

Wildlife corridors allow bandicoots and other animals to move between different populations in their search for new mates, increasing their numbers and keeping each group genetically healthy.

The loss of the habitat corridors from Melbourne's urban growth plans would strand the very healthy bandicoot population at the Royal Botanic Gardens (Cranbourne) in a sea of housing.

The draft sub-regional species strategy, released in 2011, was a good plan which included:

- key 200 metre wide biolinks between the significant population at the Botanic Gardens, and the green wedges
- options for broader biolinks in the green wedges, ultimately linking to known habitat nodes such as Koo Wee Rup Swamp
- over \$30 million to deliver the plan.

This draft strategy was dropped by the Baillieu Government in June 2012, after lobbying from the property development industry. Almost two

years later, in January 2014, after nothing had been heard from the Victorian Government or the Department, a new 'final plan' was released and submitted to the Federal Government for approval.

The new final strategy showed no specific biolinks, but instead one large proposed Southern Brown Bandicoot management area with no concrete commitments about what will occur within it – this is to be determined via the development of an Implementation Plan.

There are no commitments for any links within or immediately adjacent to the Growth Area (where the impacts will occur), leaving the Cranbourne population isolated. There are in fact few firm commitments at all in the final strategy, which is vague and has no measurable targets.

Although there was no formal consultation period, the VNPA and local groups produced a combined submission in which we argue for the reinstatement of biolinks through the urban area adjacent to the Royal Botanic Gardens.



Preparing to present the petition at Greg Hunt's electorate office.



All smiles for the camera: Minister Hunt with bandicoot researcher Sarah Maclagan (centre) and Yasmin Kelsall of VNPA.

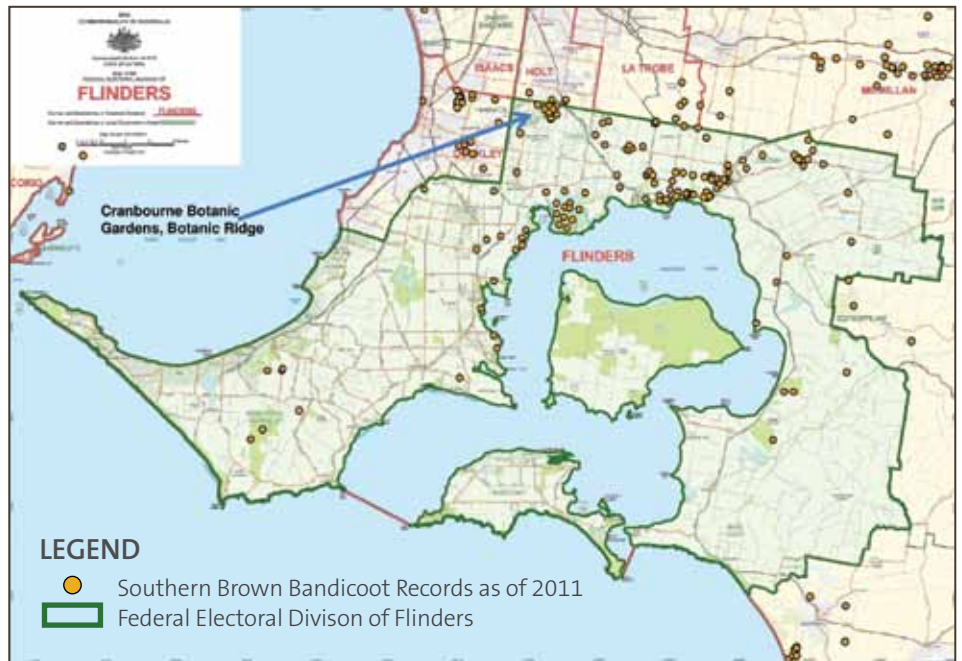
PHOTOS: MALCOLM BROWN

We then look further ahead to the establishment of larger links, probably delivered via voluntary payments and planning controls, through the green wedge to key habitat nodes.

New research has shown that bandicoots can effectively use smaller habitat links than the 200 metres originally proposed in the draft 2011 strategy. As a compromise, groups have suggested that a minimum 30 metre corridor with appropriate buffers (total 80 metres) should be established through the urban area.

This is less than half the size of what was originally proposed, and should be considered the absolute minimum (see diagram below). The expectation would be for larger and wider habitat corridors in the more rural green wedge area.

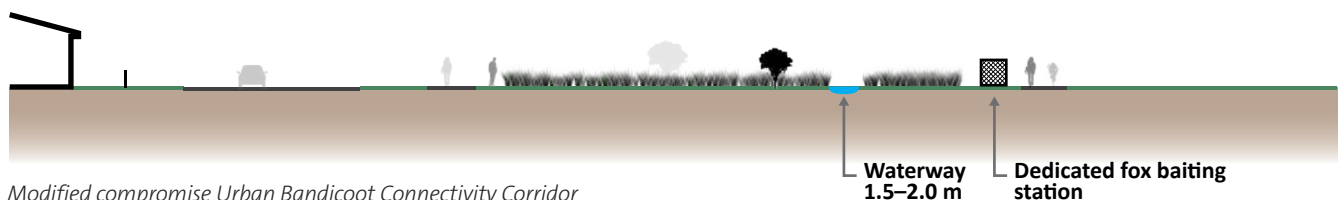
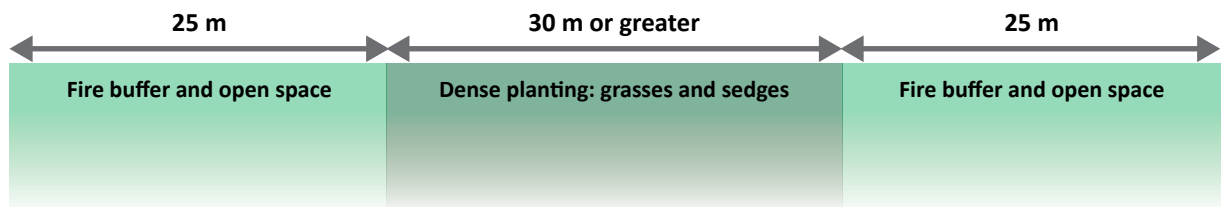
The Southern Brown Bandicoot is a harmless, affable creature that was once a common sight snuffling around backyards in Melbourne's southeast. But it is being increasingly pushed out by poor urban planning.



South-east Melbourne is a hotspot for Southern Brown Bandicoots, and one of the few places where they are found on the urban fringe.

We have a once-in-a-lifetime opportunity to get planning for them right, and an opportunity to showcase sustainable urban development. Once these areas are covered in roads and houses, it will be impossible to go back. • PW

Above: Bandicoot records to 2011. The green shading shows the Flinders electorate. The Cranbourne Botanic Gardens bandicoot population needs to be connected to other populations.



Modified compromise Urban Bandicoot Connectivity Corridor



Saving Leadbeater's or saving logging?

STEVE MEACHER OF THE FRIENDS OF LEADBEATER'S POSSUM REPORTS.

Let me not mince my words. The Leadbeater's Possum Advisory Group's recommendations, as accepted by the Victorian Government, are, in Prime Ministerial terms, 'crap'.

It's not that the work of the group was worthless. It gathered information, considered a range of proposals and generated powerful conclusions.

However, a mediocre outcome was made inevitable by the government's Terms of Reference, imposed to ensure a result consistent with its declared policy of allowing continued logging of Leadbeater's shrinking habitat.

Of the many individual proposals assessed by the group, those for a Great Forest National Park finished a 'country mile' ahead of all the others, improving the species' prospects by a full 10%. Most of the short-listed actions scored 1% or less, and the runner-up only 4%.

When 'packages' were compiled and compared, new prescriptions developed by the Australian National University, including a new park, increased the probability of a 'good' outcome by a score of 19. In contrast, the accepted recommendations scored a paltry 7!

Leadbeater's Possum was assumed to be extinct until rediscovered near Marysville in 1961. Ten years later, it was adopted as Victoria's faunal emblem.

Its preferred habitat is the Ash forests of the Great Dividing Range, the same forests favoured by the logging industry.

A reserve system was established in 2008, but 45% of it was burned in the 2009 Black Saturday bushfires. Last year the Arthur Rylah Research Institute published a study concluding that the reserve system is inadequate.

The Victorian Government set up a Leadbeater's Possum Advisory Group (LPAG) to develop recommendations. It reported to the environment minister in January 2014 and he announced government support for its recommendations in April.

The state government's Terms of Reference (ToR) demanded that recommendations be "focused on supporting the recovery of the Leadbeater's Possum while maintaining a sustainable timber industry".

Packages of proposals fell into two groups: those that would do little either to support the possum or to threaten the industry, and those, like the new park and the ANU prescriptions, that had a real chance of effectively addressing the possum's extinction risk by significantly reducing the scale and intensity of logging in its habitat.

Because they challenged the industry, the latter had to be rejected as 'not within the ToR'. In this way, the government (and industry group members, the Victorian Association of Forest Industries and VicForests) ensured that only recommendations consistent with supporting logging could survive analysis.

So what are the recommendations? The Friends of Leadbeater's Possum group has reviewed and assessed them.

Inadequate recommendations

First are those that appear well-intentioned but inadequate. They include:

- To establish a 12 hectare buffer around colonies. In practice this will protect only 3ha, the area needed to support a single colony. Possums surviving in these tiny pockets will be isolated for generations.
- To delay harvesting for two years in areas where modelling has shown a 0.65 probability that possums may be present. 83% of those areas are already within parks or reserves, so few, if any, animals would benefit.
- To use 'Retention Harvesting' in 50% of logging coupes. To be credible, a retention option must be accompanied by reduced production.

Left: Trashing the forest: logging coupe off Kalatha Creek Road, Toolangi State Forest. Trees at the edge of coupes are often damaged or killed by the post-logging burning.

The recommendations, limited by an industry-imposed cap of 5% yield reduction, do not reflect this, so it must be concluded that it would be little more than a re-badging of traditional logging practice, with some retained islands of forest surrounded by clearfelling.

- To establish buffers to protect 'old growth'. DEPI figures show that less than 1.2% of Mountain Ash forest in the Central Highlands is unlogged and unburned since 1939. This tiny area is mostly already protected; adding buffers will make little or no difference.
- To amend the Leadbeater's Possum habitat zone (1A). The change proposed, reducing the requirement for 12 potential nest trees per 3ha to 10, is minimal (ANU proposed 8). Importantly, it excludes improved protection for dead trees, the preferred nest sites. These, vulnerable to decay and fire, are increasingly few and far between and not being replaced.
- To ensure that 30% of the Ash forest in each 'Management Unit' of the possum's range is protected to reach its 'oldest growth stage'. Only two of the 21 units do not already qualify, so little will change. And in those two, logging is currently continuing. Critical forest could be destroyed before it can be assessed. If the government were serious, it would declare an immediate moratorium until this re-assessment has been conducted.

All downhill

So much for the 'good' recommendations. From here on it's all downhill.

A couple can be reasonably characterised as 'investigations', with unknown and possibly negative results taking decades and coming too late, given the species is on a rapid trajectory to extinction. These include trials of alternative post-logging regeneration practices, nest-boxes, and methods of artificially damaging trees to encourage accelerated development of nest hollows.

Translocation is also to be considered – a high-risk strategy indeed, even



Above: Leadbeater's Possums.

Left: The threatened species Sooty Owl also lives in these forests.

PHOTOS COURTESY STEVE KUITER

if there were suitable (yet vacant) protected habitat to translocate animals into.

All remaining proposals deal with incidental issues such as fire management, community engagement, and monitoring and review. These are, or should be, already occurring to some extent. They mean well but are unlikely to produce any tangible benefits to support the possum's survival.

Critically, several important proposals didn't make the cut and have been omitted.

The government's own research, and that of the ANU, found that the current Reserve System is inadequate to provide for the species' survival. Yet the recommendations contain no proposal for a significant increase in the reserve, and none to compensate for the 45% lost in the 2009 bushfires.

Nor is there any recommendation to protect the critically important individual hollow-bearing trees that have become so rare.

Trees germinated before 1900 are not supposed to be harvested, but any retained are frequently destroyed or damaged during logging or post-logging fires. Any that remain are exposed and often lost soon after. They must be protected from logging and its after-effects within adequate buffers.

There is no recommendation to increase the width of streamside buffers, as called for in the ANU prescriptions. Currently these are too narrow to provide habitat for Leadbeater's, though they often contain

old trees. This is an important omission of a significant proposal.

The best option

In stark contrast to the Advisory Group's derisory recommendations, there is the proposal for a new Great Forest National Park. This was clearly identified by LPAG as the option "considered most likely to have the greatest benefit to the species".

LPAG's model "suggests that the Lindenmayer et al. prescriptions option [which includes establishment of a Great Forest NP], offers the best chance of recovery for the species". It was also the 'strongest call' from the public, appearing in 70% of written submissions. But it was excluded by the Terms of Reference.

The gulf between effective proposals to conserve the state's animal emblem and those accepted by the logging industry is clear evidence that we can no longer pretend that the recovery of Leadbeater's from the brink of extinction is compatible with the continued destruction of its habitat by industrial logging. The time has come to choose.

It appears the government has made its choice. Maybe it's time to choose a new government. • PW

Forest educator Steve Meacher, who lives on the edge of Toolangi State Forest, is a committee member of Friends of Leadbeater's Possum, a community group established to advocate for protection of the species. He is the group's representative on the official Recovery Team.

Walkers on a VNPA overnight trip take a break at Cobungra River, Alpine NP. Outdoors people believe that connection to nature is fundamentally important.

Outdoors Victoria

Towards a unified outdoors community

CHARLES (CHUCK) BERGER, CHIEF EXECUTIVE OFFICER OF OUTDOORS VICTORIA, EXPLAINS THE ROLE OF THIS NEW ORGANISATION AND ALSO HOW HE CAME TO BE AN 'OUTDOORS PERSON'.

A maths teacher takes a group of kids into a park to learn about fractal patterns in nature. A commercial guide leads a group of birdwatchers from overseas on a tour through coastal wetlands. A rock climbing club enjoys a weekend climbing at Mt Arapiles.

A father takes his daughter fishing in their tinnie on the Murray River; a lone bushwalker escapes for a week of camping, solitude and reflection; a 4WD group goes into the high country to help Traditional Owners map cultural heritage.

What, if anything, unifies these people?

At a superficial level, they are all undertaking activities in natural areas. But that by itself doesn't make them a unified community, any more than a few dozen people on a commuter train are a community.

Connection to nature

I think there is a deeper common thread. Outdoors people share an understanding that connection to nature is fundamentally important to our human identity. The presence of nature enlivens us, improves our health and wellbeing, sharpens our sense, and enriches our social lives. It is this conviction that is at the core of our outdoors community, not just our presence in natural areas.

My own journey towards this conviction began in 2003, when I spent three months living entirely outdoors as



a volunteer with a biodiversity survey in Kafue National Park, Zambia.

At the time, I was a young corporate lawyer, working long hours in offices and board rooms. I had never spent a night camping, never cooked over an open fire, never been away from electricity or running water.

For three months, I and a dozen other volunteers worked, cooked, played and lived outdoors, very close to nature. Sometimes too close: twice we were charged by elephants while on transect, once we had to skirt a bushfire on foot, and I still carry a scar from a nasty razor-grass cut on my hand. (Not to mention getting urinated on by a vervet monkey sitting in a tree above me. Not funny.)

I noticed changes in myself almost at once. My senses became more acute, my body became tough and fit. Mentally, I felt far less stressed, far more able to focus on the moment. My relationships with those around me were more complex.

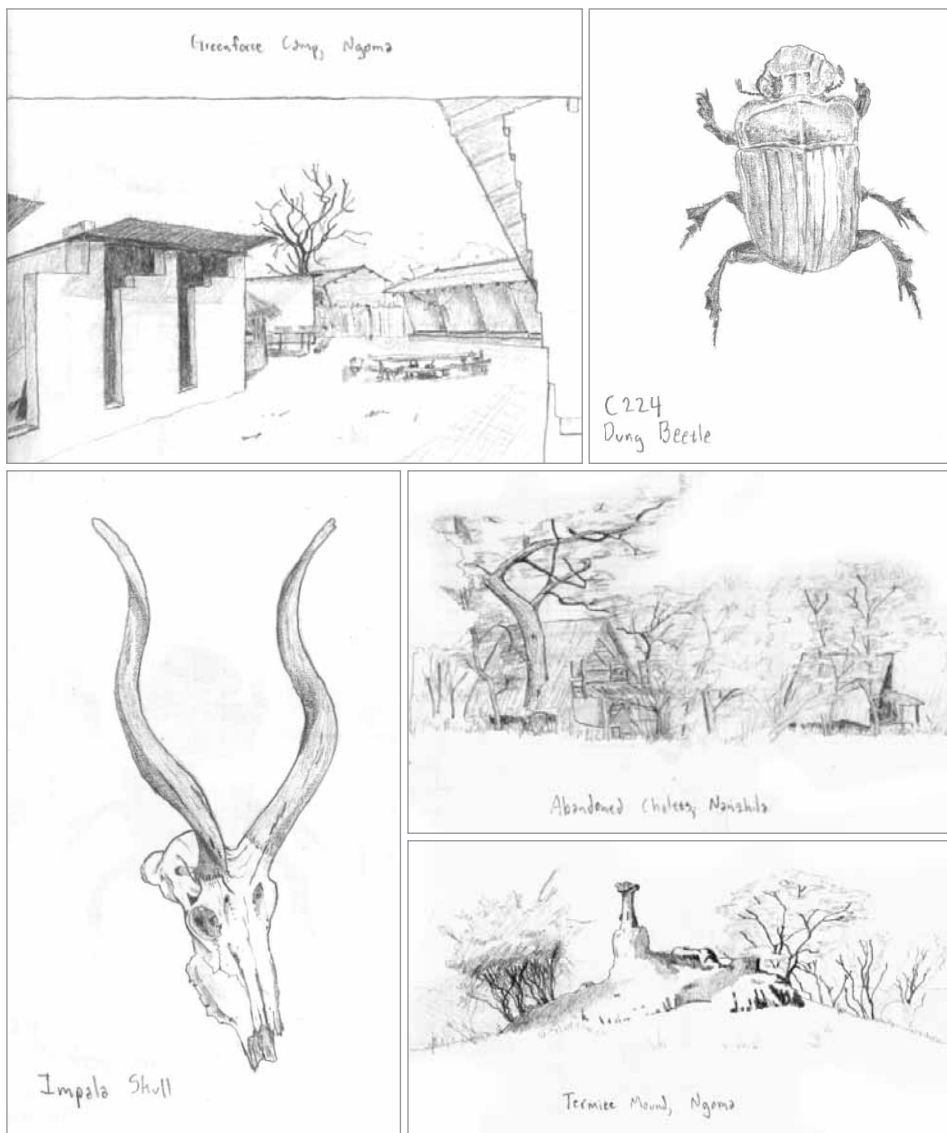
Without the distractions of modern entertainment, and with very few possessions, we became more inventive and spontaneous. I laughed more, learned to draw (sort of), and quickly grew closer to my bush colleagues than I ever would have been with office co-workers.

Outdoors Victoria

Eleven years later, after a decade in the conservation movement and many more positive outdoors experiences, I am honoured to have been chosen to lead Outdoors Victoria.

Outdoors Victoria was established in 2012 to foster a vibrant, sustainable outdoors community, and carries on the work previously done in part by the Outdoor Recreation Council and the Victorian Outdoor Education Association.

As a non-profit, member-based community group, Outdoors Victoria is a voice and a forum for the full range of people and organisations involved in outdoor activities.



Living outdoors in Zambia sparked an interest in drawing for Chuck. These evocative sketches are some of the results.

Of course, there is no guarantee that everybody in the outdoors community will always agree. There should be room for legitimate differences of opinion. But where that exists, Outdoors Victoria can operate as a forum where some common ground can be established, and any unnecessary polarisation in the media and political realm can be avoided.

This year, Outdoors Victoria will be releasing the first-ever comprehensive policy agenda for Victoria's outdoors community, drawing on the best expertise and policy ideas from across the community.

Second, we can provide forums and platforms for people in the outdoor community to share knowledge and stories, network with one another, and strengthen each other's skills and capacities.

Our upcoming conference, Outdoor Education 2014, is an example of how we can fulfil this role for teachers. The conference, on 15-16 June at Somers on the Mornington Peninsula, will explore how outdoor educators can operate as a more tight-knit community of practice. We will be rolling out a broader series of events over the next year.

Third, Outdoors Victoria can provide tools and research to empower the outdoors community. An example here is the adventure activity standards which establish industry best practice for leading dependent groups on a wide range of outdoor activities.

These are big ambitions for a relatively new and small organisation. What gives me confidence that we can achieve these goals?

Most importantly, it is the passion, expertise, goodwill and sheer bloody-mindedness of outdoors people across this state. And as a monkey in Africa once taught me, aim high, maintain focus, and you'll hit your target! • PW

For more information about Outdoors Victoria, and about Outdoor Education 2014, visit our homepage at www.outdoorsvictoria.org.au

At times, that community can feel dispersed and disorganised. Rock climbing, surfing, bushwalking, bird watching, and dozens of other activities all have their own strong organisations, clubs, publications and events. Other activities, like geocaching, are simply networks of participants.

And alongside these are professional educators, bush therapists, nature-based tourism companies, land managers, equipment suppliers and many others, each with their own networks and institutions.

Clearly, people commit great effort to these specific pursuits. Indeed, what the sector may lack in terms of funding, compared to large industries like finance and retail, it more than makes up for in commitment and participation rates across the state.

But perhaps it's not always clear how this diverse community can come together. This is where Outdoors Victoria can help.

Role and activities

First, Outdoors Victoria will lead on the development and advocacy of policies that will best facilitate sustainable outdoor activities for the whole community. We'll be stronger speaking with one clear voice on priority issues, rather than engaging in policy debates in an uncoordinated way.

This is particularly necessary in light of the multiple pressures our natural areas face. Some of these are ecological threats, like climate change and biodiversity loss. But others are threats to human experience of the outdoors.

For instance, according to the 2014 Victorian budget, 46% of recreational facilities in state forests will require replacement in the next five years. But current budget allocations are almost certainly inadequate to keep pace with replacements, let alone new facilities. Parks are in the same situation.

Forests Forever Easter ecology camp

EAST GIPPSLAND 18-21 APRIL

East Gippsland
panorama near
Errinundra NP.

VNPA MEMBER JENNY ROLLAND REPORTS ON AN
ENJOYABLE AND SUCCESSFUL CAMP AT GOONGERAH.

PHOTO: DAMIEN DEVINY, COURTESY ANN BIRRELL

The Easter ecology camp has been held every year since Environment East Gippsland (EEG) was formed in 1982. It's a great opportunity for people to enjoy and learn about the area's ancient forests, and is also EEG's main fundraiser for its campaigns.

This year, for the first time, the VNPA co-hosted the camp with EEG, sharing its members' commitment to preserving the area's magnificent high conservation value forests.

The East Gippsland forests stretch from the ocean to the alps. They are of great biological significance, but are threatened by clearfelling for timber and woodchipping.

About 80 people, young and old, attended the camp. Activities included bird-watching and spotlighting with Euan Moore and me, forest photography with Jude Deland, and tours with botanist and ecologist David Cameron.

David explained the critical role the forests play in storing carbon, moderating climate and producing clean water. We visited a sphagnum bog which he said was up to three metres deep and had not been burnt for 10,000 years.

We also learnt that it takes at least 150 years for the trees to develop suitable hollows for owls and animals like the Yellow-bellied Gliders we heard gurgling each night at the campsite.

David also showed us first-hand the impact of bushfires on the forest. We saw how rainforest gullies can act as fire dampeners, but that after intense fires the forest type can be irreversibly changed.

Some management strategies to contain fires, such as burning 'islands' in unburnt sites and excessive back-



PHOTO: JENNY ROLLAND



Above left and left: Regeneration after the recent fire was striking. Above: Young Thea Sydes (Homo sapiens) took her Angry Bird persona seriously as she checked out a bait station.



PHOTO: JENNY ROLLAND

burning, are particularly harmful for forest survival and may actually increase the fire risk.

In the evenings, participants gathered for hearty soup and dessert, and talks including an overview of the East Gippsland campaign from ardent campaigner Jill Redwood, bushfire risks and myths by David Cameron, and 'Trials and Tribulations' by Brendan Sydes from Environmental Justice Australia (formerly the EDO). Euan Moore talked about the VNPA's activities and campaigns.

VNPA members Garry and Wilma van Dijk led an enjoyable wildlife camera demonstration. On the first afternoon they took a group out to place wildlife cameras, then on Sunday recovered the cameras and presented the results in the evening.

Campers were treated to wonderful photos of kangaroos, wallabies, wombats, antechinus, brush-tailed possums and bush rats (and one small

child) attracted into the camera's range by the bait-station's tasty food mix. This activity showed just how successful wildlife cameras are for monitoring wildlife.

Self-guided walks were another option, and campers could browse Irina's 'bower bird' op shop and the EEG and VNPA books and merchandise. On Sunday morning, campers were delighted to find that the Easter bilby had visited overnight!

On Monday morning, Jill showed us around her organic orchard and farm and we gained a deeper understanding of her love for the East Gippsland forests.

We all left the camp refreshed and impressed by the beauty and antiquity of the forests, enlightened by their complexity and importance for biodiversity, and better armed for ensuring their survival through campaigns and education. • PW

Botanist David Cameron (right) interprets the rainforest.

First time at Forests Forever

ELIZABETH HOWES AND PARTNER ARIEL DE RAMOS FIND THAT THE EAST GIPPSLAND FORESTS NOW HAVE A SPECIAL PLACE IN THEIR HEARTS.

It was a perfect autumn day in the East Gippsland bush. Only the bellbird calls pierced the silence of the ancient forest, and there was a smell of damp earth, eucalyptus and wood smoke in the air.

It was our first time at the Forests Forever camp. We had travelled along the winding Bonang Highway, brilliantly green epicormic growth a sharp contrast to the blackened trees following the February fires.

We were to learn much more about this forest. On our first night, we were treated to a talk by long-time forest botanist David Cameron about what makes the East Gippsland forests special.

Lying in a convergence zone between two trade wind systems, their climate is unique among forests. There is both warm temperate and cool temperate rainforest, as well as eucalypt forest.

The recent bushfires in the area were a 'hot' topic on the camp. David impressed on us that the only intervention (if any) in rainforests after a fire should be to pull out any eucalypt seedlings that had sprouted from seeds carried by the fire. Excess eucalypts in a rainforest make it more fire-prone, as they suck more water out of the ground and burn more easily than rainforest plants.

To identify eucalypt seedlings, said David, you look for symmetrical heart-shaped leaves and a purple-reddish colour on the underside, and then you taste – yes, taste – the seedling. You'll know straight away if it's a eucalypt!

Concern was expressed about the State Government's policy of burning 5% of Victoria's public land each year. It is worrying that they are doing this across



PHOTO: ANN BIRRELL

the state, rather than carefully studying different types of land and vegetation and burning according to need.

However, it was good to learn more about issues like these, and be able to enlighten people who believe in indiscriminate control burning.

It was also good to see Jill Redwood's wonderful organic farm. An Eden surrounded by pristine forest, it houses a large covered orchard and veggie garden, goats, alpacas, handsome Clydesdale horses, guinea fowl and an elderly dog. Jill, an EEG founder, built the farmhouse in stages herself, and has lived a low-impact lifestyle there ever since.

Other highlights of the camp were an inspirational protest song for the

forests, a visiting antechinus, and a slideshow of animals (and one child) that had inspected the infra-red cameras.

On the last night, looking up at the clear night sky adorned with millions of stars and listening to the crickets, we felt like the only people in the universe.

This sort of connection is a vital first step towards gaining support for protecting the forests, and nature in general. People need to really know, feel and care about them to want to protect them. It was particularly heartening to see children following in their parents' footsteps as forest lovers.

As for us, Forests Forever first-timers, the East Gippsland forests now have a special place in our hearts. We definitely plan to return next year! • PW

VicForests' East Gippsland woodchip contract to end

On 12 May, the woodchip exporting company based in Eden (NSW) announced that it would not be renewing its contract with VicForests from the end of 2014.

The Japanese company owning the Eden woodchip mill has been losing on these operations, and is increasingly relying on plantation woodchips from south-east Asia and Australia.

The loss of the Eden contract gives VicForests an opportunity to reduce the financial losses it is incurring at taxpayer expense.

VicForests is looking for alternative markets for East Gippsland woodchips. A big danger is that it will promote the use of this timber in power station furnaces to produce so-called 'green' power. The VNPA strongly opposes this.

It's time for VicForests and the State Government to recognise that the best and most profitable use of these forests is to protect them for their long-term carbon storage value and for their flora and fauna.

Euan Moore



Alpine cattle grazing – it's not science, it's politics

FORMER ALPINE NATIONAL PARK RANGER PETER LAWRENCE REVEALS THE ELEPHANT (OR COW) IN THE ROOM: CATTLE GRAZING CAN NEVER BE A USEFUL TOOL FOR BUSHFIRE MANAGEMENT.

*Cow at left:
"The grazing's not bad
here, but go up those
steep slopes? No way!"
Cow at right declined
to comment.*

PHOTO: MATT RUCHEL

In March, federal environment minister Greg Hunt finally approved the Victorian Government's cattle grazing trial in the Alpine National Park. The three-year 'scientific' trial is being conducted in the remote Wonnangatta Valley, about 40 km east of Mt Buller.

Sixty cattle have been munching their way around in a fenced section of the trial area for several months. It's proposed to introduce 300 head into the valley in years 2 and 3 of the trial, which according to the proposal documents is intended to ascertain the effects of grazing and fuel reduction burning on reducing bushfire fuel loads.

What is this trial really about? It's not about science, it's all about politics. Peer-reviewed science over many decades has repeatedly found that 'grazing does not reduce blazing' and both federal and state governments have been advised of this by their own bureaucrats and many eminent scientists.

But as the climate change debate has shown, if you don't like what scientists are saying about environmental matters you can just go and make up your own mind. And while you're at it, you can use the media to discredit the scientists and their science.

If it wasn't so serious it would be funny.

Politics has always had some influence on how conservation land managers act, but in recent times this has been raised to unprecedented levels. These days politicians regularly promote our parks

as venues for activities that contravene the very legislation set up to manage these areas in the first place.

Often this is done primarily to shore up votes with vocal minority interest groups and some constituents in conservative rural electorates. Unfortunately this truth is never acknowledged or even discussed.

During an interview with Gippsland ABC radio before the trial commenced, the Victorian environment minister was at pains to point out that the Wonnangatta Valley was an appropriate place to conduct this trial as it was only a place for 'big four-wheel drives, trail bikes and deer hunting' and the area was not of 'high conservation significance'.

Actually, the valley just happens to be a quite unique part of the Alpine National Park. It's that very uniqueness that attracts visitors to the area.

It is true that most of these visitors use four-wheel drives, as the only access is via generally steep 4WD tracks. Trail bike groups also make the valley a stop-off point, and deer hunters have used the area for decades.

The negative connotations implied in the Minister's comments are surprising, given the constant push by governments to encourage people into our parks.

The valley is also has considerable conservation value. Extensive native grasslands, a very rare orchid and a number of restricted native plants all exist along the upper reaches of the heritage-listed Wonnangatta River.

If the trial continues for the full three years and is not stopped by an incoming Labor state government, we can expect a report to be written by paid external contractors which will probably say yes, cows eat grass, and if you put enough stock in a small area the amount of grass or biomass left will be less. It will also probably say that burning reduces biomass, at least in the short term.

All this will be nothing new, and of little relevance to the stated aim of this trial.

The problem with using a unique area for a land management trial is just that: it is unique, and therefore not typical of most of the mountainous country across the state. The great majority of the Alpine NP consists not of river-flat grasslands, but of steep ridgelines bounded by deep stream valleys.

The layout of the trial site has relied on advice from the cattlemen, who have said that cattle will not go up the steep slopes on either side of the valley.

But if cattle cannot travel up steep mountain slopes, how could cattle grazing possibly be used to reduce fuel loads across a landscape where steep mountainsides predominate?

The cattlemen are, perhaps without even realising it, admitting that what they have been saying for years is based on a fallacy – that in fact cattle grazing can never be a useful tool in managing fuel loads in the mountains, and therefore that this trial is nothing more than a political stunt conducted at the expense of one of our premier national parks. • PW

Failed mine returns to threaten the Tambo

THE VNPA'S PHIL INGAMELLS TAKES A LOOK AT EAST GIPPSLAND'S PROPOSED STOCKMAN MINE AND ITS POTENTIAL IMPACTS.



ILLUSTRATION: GOOGLE EARTH

The original containment dam (circled), with a 300 metre long dam wall. The containment dam (renamed 'Lake St Barbara') will be expanded considerably, and the dam wall raised by 25 metres. The Mine and dam are in remote country at the headwaters of the Tambo River, about 6km from the Alpine National Park.

In the early 1990s a highly controversial copper mine in remote country 20 km east of Benambra was given the go-ahead by the Victorian government.

It had optimistically been promised to return \$2 million annually to Victoria, but the mine closed after just two years of operation when the price of copper dropped.

This wasn't the only problem. A large tailings dam, needed to contain toxic waste from the mine, had been constructed over the most extensive area in the region of a threatened ecological community, Montane Swamp Complex. And the dam was leaking heavy metals into the headwaters of the Tambo River, a waterway crucial to farmers around Bruthen, and eventually to the Gippsland Lakes.

The mining company, Denehurst, walked away from the project in 1992 leaving a hopelessly inadequate bond and a massive \$7 million clean-up bill for the government.

The Benambra mine has now been re-invented with a new company, the Independence Group, and a new designer name for the project: the Stockman Mine.

It is bigger, much bigger, than the original mine, and an

Environmental Effects Statement (EES) was presented for public comment in April this year, with panel hearings in June.

Several years in preparation and 600 pages long, the EES is a challenge for anyone, and particularly for members of the East Gippsland community, to deal with.

This mine's impacts are potentially considerable:

- The old containment dam is insecure at its current level.
- The greatly expanded containment dam (the height of the dam wall will be increased by 25 metres) poses long-term stability risks.
- Toxic waste in the containment dam must remain covered by three metres of water for tens of thousands of years. Given the small catchment area for the dam, and climate change predictions of increased drought, this is an improbable situation.
- Expansion of the dam will destroy the remaining adjacent area of Montane Swamp Complex.
- Widening of the access road to allow 40 heavy vehicles per day will necessitate removing some 600 old trees, with a consequent loss of tree hollows for owls and mammals.

- Many threatened species have been recorded in the mine area, yet flora and fauna surveys, such as in Straight Creek (which feeds into the Tambo), have been inadequate.
- There are significant issues with groundwater. Mine operations will take around 2,500 ML of groundwater from the Benambra Plain, and groundwater pollution from mine seepage is a potential issue.
- Regulatory processes are inadequate to guarantee either the safety of waterways and hence the local community, or the long-term integrity of the area's natural values.

Most importantly, we see no evidence that future management of the containment dam, and other likely long-term impacts, will be covered by a suitable bond.

An adequate bond amount, such that the Victorian community will not have to carry any future financial burden or suffer any environmental impact, would have to be very large indeed!

The long-term environmental sustainability and security of the Stockman Mine project is a serious concern which should be openly addressed by the local community, the wider Victorian community and the Victorian Government before any approval is given for the project. • PW



PHOTO: JOHN KOTSIARIS

Diamond in the rough

ROSENEATH STATE FOREST

JOHN KOTSIARIS STUDIED ECOLOGY AND CONSERVATION AND HAS BEEN AN ACTIVE VOLUNTEER WITH THE VNPA'S 'CAUGHT ON CAMERA' PROJECT. AS HIS ARTICLE BELOW SHOWS, HE LIKES TO EXPLORE NATURAL AREAS IN VICTORIA AND ELSEWHERE.

*Sandy track in
Roseneath State Forest.*

Little-known Roseneath State Forest is in far south-western Victoria in the upper parts of the Glenelg Plain bioregion.

Scruffy yet handsome, Roseneath and adjoining forests contain remnant Brown Stringybark woodland and sand heath in excellent condition. The landscape is dotted with numerous swamps and wetlands and supports an array of native mammals, birds and wildflowers.

Roseneath is not far north of Casterton, birthplace of the Australian Kelpie. The forested areas around Casterton consist mainly of remnant woodlands plus pine and hardwood plantations.

Casterton is an attractive and friendly town with a rich history. There's food, shops, accommodation and an information centre which can supply brochures and advice on exploring the region (though bring your own detailed maps if you plan to go bushwalking).

South-west of Casterton is the Wilkin Flora and Fauna Reserve, with the Glenelg River flowing nearby. It has awesome displays of spring wildflowers, and the area is serious cockatoo territory.

Within one afternoon I saw Gang-gangs, Sulphur-crested Cockatoos, Yellow-tailed Black-Cockatoos and endangered South-eastern Red-tailed Black-Cockatoos. Not to mention a pair of trumpeting Brolgas.

West and north-west of Casterton are Drajurk, Nangeela, Dorodong and Roseneath State Forests, Roseneath Reference Area, Tooloy-Lake Mundi Wildlife Reserve, Dergholm State Park and some other smaller reserves.

Roseneath caught my attention with its eerie damp woodlands, stunning wildflowers, cracked swamps, and the distant and at times haunting calls of the Red-tailed Black-Cockatoos.

Wildlife

Inspired by Nature Watch's 'Caught on Camera' projects, I decided to set up my own camera to get a closer look at some of the wildlife. Among the images were Red-necked Wallabies, Western Grey Kangaroos, Emus and Grey Currawongs.

Red-necked Wallabies are declining in Victoria, probably because of the loss of suitable habitat and illegal hunting. These colourful wallabies prefer the ecotone (junction) between dense

and open vegetation, and like to graze along the edges of swamps in Roseneath. Protecting such areas would be important for Red-necked Wallaby conservation in the Glenelg Plain.

The Brown Stringybark woodland and sand heath in Roseneath is potential habitat for many other animals, including several threatened species. Examples of mammals could include the Southern Brown Bandicoot, Swamp Antechinus, Heath Mouse, Silky Mouse and Western Pygmy-possum.

Among significant birds could be the Red-tailed and Yellow-tailed Black-Cockatoo, Swift Parrot, Brown Treecreeper, Flame and Hooded Robin, Chestnut-rumped Heathwren and Southern Emu-wren.

The South-eastern Red-tailed Black-Cockatoo is one of Roseneath's most iconic species. This impressive bird is found only in SW Victoria and SE South Australia and is highly dependent on Brown and Desert Stringybark seeds for its survival. Sadly, because of the clearing of woodlands there are now only about 1400 of the birds remaining.

Planned burns

Current planned fuel reduction burns may pose a further threat to the availability of



PHOTO: NICK SHAW



PHOTO: NICK SHAW



PHOTO: JOHN KOTSIARIS



PHOTO: JOHN KOTSIARIS



PHOTO: JOHN KOTSIARIS



PHOTO (REMOTE), JOHN KOTSIARIS

Clockwise from top left: Lemon-scented Sun Orchid (*Thelymitra antennifera*); Rabbit Orchid (*Leptoceras menziesii*); SE Red-tailed Black-Cockatoo; Emu in the forest; Common Fringe-myrtle (*Calytrix tetragona*); Butterfly on tea-tree.

the birds' main food source: stringybark seed capsules less than a year old. The South-eastern Red-tailed Black-Cockatoo Recovery Team advises on fire management in Red-tail stringybark habitat, and has endorsed and developed a list of fire management strategies to minimize the impact of burns.

Where canopy scorch has occurred it takes an average of 10 years for the stringybark food trees to return to their previous level of seed production. Care needs to be taken during planned burns to minimize canopy scorch and avoid areas with high seed loads and/or recent seed crops.

At least 85% of Red-tail stringybark habitat should remain unburnt in the previous ten-year period. At the moment 25% of the habitat range has already experienced scorch, and this could increase further due to Victoria's current controversial fuel reduction burn policies and the 5% of public land annual target.

Large areas of Red-tailed Black-Cockatoo habitat are to be burnt this year and over the next few years. This includes about 5000 hectares in and around Roseneath State Forest.

Unnatural autumn, winter and spring fires can also have big impacts on wildflowers and vegetation. A large percentage of the Wilkin Flora and Fauna

Reserve is marked for planned burns between now and 2016. This could significantly impact the abundance of wildflowers in the reserve.

Burning large areas of forests to achieve a target amount of hectares is damaging our natural heritage. Strategic fuel reductions burns in bushland very close to townships would be much more sensible and justified.

Future visions

It would be really good to see a national park created in the upper parts of the Glenelg Plain bioregion to encompass and protect the remnant woodlands in and around Roseneath State Forest. Currently these forests are largely fragmented by pine plantations and are not fully protected.

As pine plantations mature and are harvested, it is possible to revegetate key areas with indigenous trees to reduce woodland fragmentation. However, we must also take into account the importance of the plantation timber industry.

The logging of our remaining native forests and exporting them as woodchips must stop as soon as possible. The plantation timber industry needs to be supported so that a transition to a plantation-only industry is realistic and achievable.

The benefits of rotating tree plantations on nutrient-depleted agricultural land should also be further investigated. For example, planting a mix of hardwood eucalypts like Blue Gums and leguminous plants like acacias might help increase soil nutrient banks.

I believe we can have large intact areas of permanently protected bushland and also have healthy agricultural land rotating with plantations.

Australia has limited arable land and extremely limited renewable water resources. We depend on healthy rivers, forests and rainfall.

We need to maintain a healthy environment and we need to leave behind a diverse natural heritage for future generations to admire and enjoy.

In 1869 almost 88% of Victoria was covered in forest. Today only about a third of the State has forest cover, and much of it is fragmented and degraded.

Maybe for now we could aim for better protection and management of our remaining natural areas such as Roseneath. If we create a Roseneath National Park I am sure the Red-tailed Black-Cockatoos, Red-necked Wallabies, wildflowers and many other species would thank us for our support.

And they might just stick around to be admired for many more years to come. • PW

Cheap as chips

THE VNPA RECENTLY MET MEMBERS OF THE STRATHBOGIE SUSTAINABLE FORESTRY GROUP WHO ARE DEEPLY CONCERNED AT THE LATEST MOVE BY VICFORESTS INTO THEIR AREA'S FORESTS. THE VNPA'S NICK ROBERTS, AND BERTRAM LOBERT FROM THE GROUP, REPORT.

The Strathbogie Ranges east of Euroa have lost more than 80% of their original forest cover to clearing, agriculture and softwood plantations. Most of the remaining forest area is highly fragmented, and now the last forest stronghold is under direct threat.

More than 100 years of selective logging has left today's forest managers with a valuable forest asset that supports biodiversity, education and ecotourism, as well as supplying timber products. These remaining forests also contribute important ecosystem services for the catchments of the Goulburn and Broken Rivers.

However, with modern industrial logging, all bets are off. It appears that, not satisfied with woodchipping precious native forests at a loss to Victorian taxpayers, VicForests now has a cunning new plan for the future. Firewood! Or to use the more politically neutral term, 'biofuel'.

Its rationale for this is hard to fathom. Everyone, including the timber industry, recognises firewood as one of the lowest-value uses of native timber, yet that's the major forest product VicForests sources from these north-east forests.

VicForests has recently been logging 35 year old native forest at Tolmie, near Benalla, most of which has been sold to a hydroponic greenhouse to chip and burn in its furnaces as a source of heating. The greenhouse was previously heated using brown coal briquettes, but was able to change over to biofuel through a Victorian Government grant. That greenhouse now consumes 10,000 tonnes of woodchips per year.



Top: Strathbogie Sustainable Forestry Group members check possible logging sites.

Above: old gold mine in the Strathbogies.

Left: the dense understorey is valuable habitat.

PHOTOS COURTESY PENNY ALGAR

Is this what's in store for the Strathbogie forests too? To the greenhouse owners' credit, they are apparently looking for a more sustainable source of woodchips, now that local communities are becoming vocal, but that may not dampen VicForests' push to expand its biofuel business.

Brown coal is one of the cheapest fuels in the world. Apparently now VicForests is selling native timber to the greenhouse at a lower price than brown coal! And the change is arguably worse for the environment than burning coal.

When you burn coal, you end up with a hole in the ground and the resulting CO2 in the atmosphere. When you burn native forest biofuel, you get a similar amount of CO2 in the air (for the heat generated), but you lose a massive area of carbon-holding forest every year, in

this case just to grow tomatoes! Are we the clever country or what?

And don't think that this is just 'forest residue' that would otherwise go to waste. After logging, there's plenty of waste left on the ground to be burnt, but the logs sent to the chipper are straight and long and should never have been cut down – or cut up.

VicForests has clearly run out of ideas and is struggling to find new markets for its products. In the meantime the decimation of precious native forest and habitat continues.

The small communities around the Strathbogies have good cause to be worried, but they're not simply standing by while VicForests decides the fate of these very important public assets. See what they're up to at www.strathbogiesustainableforests.wordpress.com and find 'Our Strathbogie Forest' on Facebook. • PW



PROTECT THE WELLSFORD FOREST!

A Lace Monitor or goanna (*Varanus varius*) in a Wellsford tree hollow.

PHOTO: LIZ MARTIN

Stuart Fraser (back to camera) addresses the crowd at the Big Trees Walk.

PHOTO: LIZ MARTIN

STUART FRASER REPORTS ON ACTION TO PROTECT THIS IMPORTANT AND BEAUTIFUL IRONBARK FOREST NEAR BENDIGO.

The Wellsford Forest's pre-European Red Ironbarks (*Eucalyptus tricarpa*), at least 400 years old, are touchstones for modern Bendigo, their thick black trunks palpable links with the times before us. These ancient trees are revered by all who visit them.

The Department of Environment and Primary Industry plans to allow the forest around them, which has sustained them for so long, to be cut and trampled for free firewood, or other products of little value. When the old trees died, they would never be replaced.

If this were to happen it would mean we had abandoned the flora and fauna of our locality. It would mean we were finally, truly and disastrously disconnected from nature and our past.

This has galvanised locals into action. In February 2014 the Wellsford Forest Conservation Alliance was formed with the goal of protecting the Wellsford as national park. It's an alliance of environmental groups, field naturalists, Landcare groups, students and interested individuals across the City of Greater Bendigo.

These people recognise that the entire forest should be maintained in

perpetuity as habitat for our vanishing wildlife and as a place for Bendigonians and others to enjoy. It should not be a source of cheap firewood!

And they understand that it will not survive without our help. Climate change, with lower rainfall and drier, hotter summers will change the way forests grow and regrow after disturbance.

If the Wellsford is finally included in the conservation reserve system it will be a protected biolink of great significance. From Bendigo Creek (which links with Kow Swamp on the Murray) to Bendigo Regional Park, through to the Mt Sugarloaf reserve and the Longlea Commonwealth land, there will be a continuous ribbon of box and ironbark forest.

There are also good links to Axe Creek and the Campaspe River line of forest, the Heathcote forest to the east and the Whipstick/Kamarooka parks to the west. These areas are excellent examples of recovering forest, particularly the understorey and trees with developing hollows.

The Wellsford Forest was excluded when the box-ironbark national parks were declared because it was still being logged, despite its recognised ecological values.

It's time we gave this forest in Victoria's dry interior a better future. In short, the Wellsford Forest needs and deserves the protection of national park status. • PW

Big Trees Walk draws crowd

On Sunday 18 May more than 110 people came on the Wellsford State Forest Big Trees Walk.

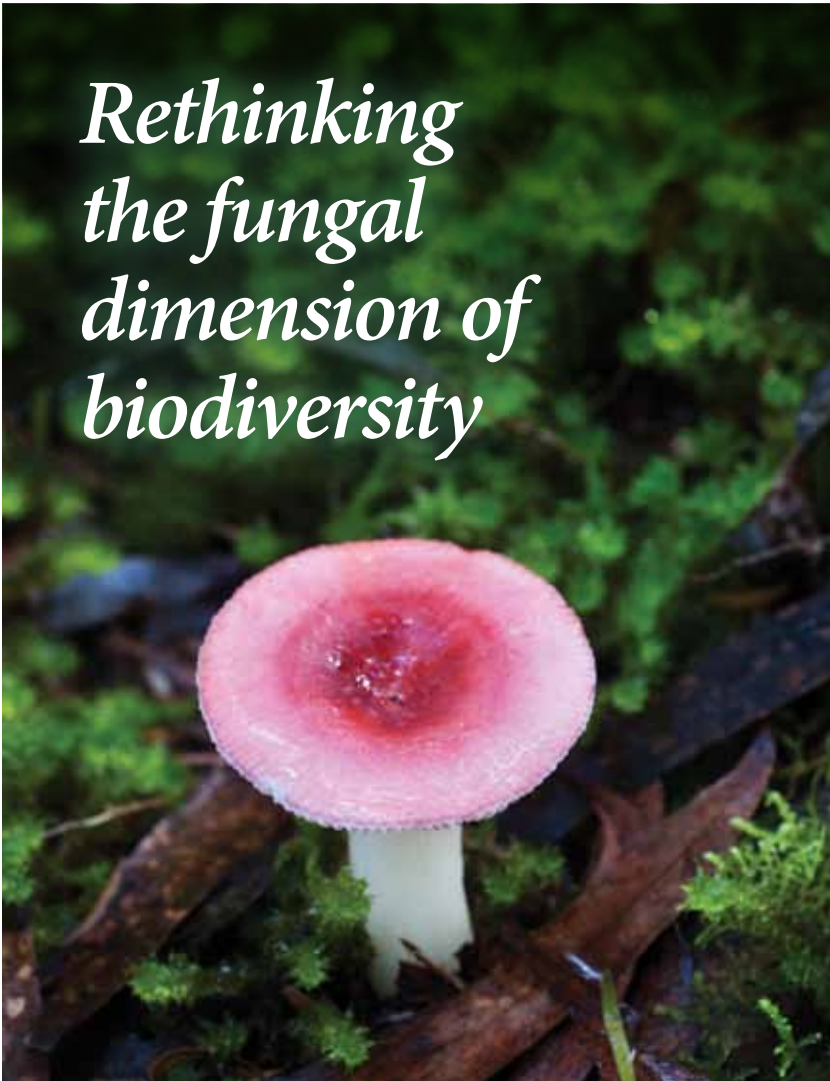
The Wellsford Forest Conservation Alliance organised the walk to highlight the need for better protection for the forest. The Big Trees are the nine remaining pre-European ironbarks on public land in Bendigo.

These trees are the elders of the forest, a great asset, part of our heritage. They are a window into the past, and if we treat the forest with respect and stop logging they can also be a window into the future.

TAKE ACTION:

Contact your local state MPs and ask them to support protecting the Wellsford Forest under the National Parks Act.

Rethinking the fungal dimension of biodiversity



PHOTOS: ALISON POULIOT

Left: *Russula persanguinea* grows in eucalypt forests and woodlands. **Top right:** The mushroom is the reproductive structure of the fungal mycelium which is seen here as a matrix of interconnected hyphae that is decomposing this log. **Bottom right:** *Ascocoryne sarcoides* decompose a log.

EXPLORING THE NATURAL ENVIRONMENT IS ECOLOGIST AND PHOTOGRAPHER ALISON POULIOT'S FOREMOST PASSION. SHE ALSO HAS A DEEP CONCERN FOR THE RAPIDLY CHANGING STATE OF OUR NATURAL ENVIRONMENTS. YOU CAN SEE MORE OF HER PHOTOGRAPHS AT WWW.ALISONPOULIOT.COM

Victoria's national parks are tremendous refuges for Victoria's biodiversity, including *Homo sapiens*.

But what actually is biodiversity?

Generally speaking, biodiversity (biological diversity) describes the variety of life on earth. More specifically, this may refer to variation within genes, species or ecosystems.

Biodiversity is more than an ecological concept. It's also an important political tool of global environmental conservation.

Although the term *biodiversity* was intended to include all life forms, it is often used to refer only to flora and fauna.

An entire kingdom – the fungi, which are not plants – is often overlooked.

Current approaches to Australian biodiversity management focus predominantly on plants and vertebrates – that is, they address less than 10% of Australia's total megadiversity.

State legislation overlooks fungi

Our state protective legislation, the Flora and Fauna Guarantee Act 1988, is one such example that largely excludes fungi.

The summarised purpose of the Act is to 'to enable and promote the conservation of Victoria's native flora and fauna and ... the management of potentially threatening processes'.

But what about fungi?

Dozens of mammals – such as bettongs, potoroos and wallabies – and numerous other animals rely on fungi as food, and the great majority of plants can't take up nutrients and water effectively without the help of their fungal partners.

Arguably, every species of animal and plant relies either directly or indirectly on fungi. Fungi therefore need explicit recognition in biodiversity legislation to enable not just their own conservation, but that of all biodiversity.

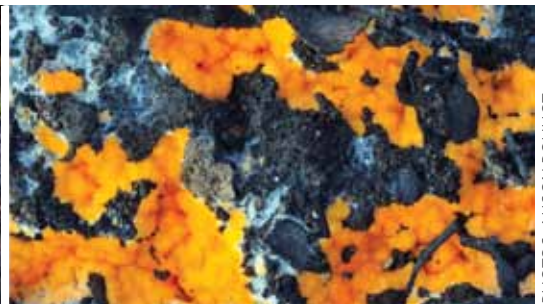
The importance of fungi as vital organisms underpinning terrestrial ecosystems and contributing to their resilience and persistence is well documented. Hence, it is time to recognise the need for their inclusion in definitions and representations of biodiversity, legislation, education and conservation.

Secret relationships

So what are all those fungi doing exactly, and why are they so important?

Many of the functions that they perform are not always readily apparent. Firstly, most of the action happens underground.

We're usually only aware of fungi when we see their reproductive structures – mushrooms and other forms of fruiting bodies such as puffballs, brackets, cups



PHOTOS: ALISON POULIOT

Far left: Every eucalypt in Victoria's forests has mycorrhizal fungal partners.

Above: Fungi such as *Pyronema omphalodes* are among the first colonisers of burnt soil.

Left: These tiny *Marasmius alveolaris* play an important role decomposing leaf litter.

and discs – push through the soil or appear on trees or other substrates.

However, most of the work is performed by the fungal 'body', a matrix of interconnected filamentous hyphae collectively known as *mycelia*. This part of the fungus forms an underground framework, stabilising soils, improving water retention, cycling nutrients, and connecting organisms and systems.

Many fungi form mutually beneficial relationships, known as *mycorrhizal associations*, with plants. By forming a sheath around the tiny rootlets of plants, or directly penetrating them, the fungus effectively extends the plant's root system, increasing the plant's capacity to access greater volumes of soil in search of water and nutrients. The fungus also protects the plant from soil pathogens.

In return, the plant provides the fungus with carbohydrates produced through photosynthesis.

The majority of fungi play another vital role in colonising and decomposing organic matter such as fallen trees and leaf litter. These fungi secrete enzymes that break down compounds, including cellulose and lignin, into simpler compounds, thereby making nutrients available for other organisms.

Other fungi are parasitic. While for some people the word *parasite* conjures less pleasant associations, indigenous pathogenic fungi are an essential part of functional ecosystems.

Making a difference for fungi

We can begin by simply recognising that fungi are a vital part of biodiversity.

We need to do this both at society and government levels.

Our current national biodiversity strategy – a requirement of being a signatory of the Convention on Biological Diversity – does not include fungi. It's perplexing that we've managed to overlook an entire kingdom of organisms, but there is fortunately an opportunity to rally for change.

Australia's Biodiversity Strategy 2010-2030 is to be reviewed in 2015, and this is an opportunity to push for public contribution to the review process.

Most national park management plans also exclude fungi, or only recognise them as agents of destruction. Although the enormous destructive potential of fungi needs to be acknowledged, to recognise only this role is to overlook their many vital beneficial functions. Such a limited perspective on fungi potentially influences public perception of their significance.

However, this is also something we can change, as well as lobbying for the inclusion of fungi in the biomonitoring of Victoria's national parks. This in turn may help to get fungi included in state and national biodiversity conservation legislation.

Calls to conserve fungi are not just about efforts to preserve a favourite kingdom of organisms. They're about conserving *all* biodiversity, and about understanding the inherent interdependencies, interconnectivities and functions of ecosystems.

Conserving fungi first requires knowledge of their diversity and distribution.

Volunteers like field naturalists and other fungal enthusiasts collect most of the distribution data on Australian fungi. These data are managed by the national non-profit citizen-science organisation Fungimap, which is dedicated to advancing fungal knowledge of and conserving fungi.

This resource then feeds into further research, conservation and policy development and the Atlas of Living Australia.

Approximately 15,000 fungal species have been described in Australia, but the actual number in existence could be ten times that or more.

Where are they? Victoria's national parks are undoubtedly repositories of undiscovered fungi, and Fungimap is keen to know what's out there! Next time you spot one of the Fungimap target species in a national park or elsewhere, tell Fungimap about it and contribute to Australia's knowledge of fungi. Information about how to submit records can be found on the Fungimap website www.fungimap.org.au.

Responses to environmental issues such as loss of biodiversity require a combination of scientific, societal and political perspectives. Scientific understanding of biodiversity is a predecessor to practical social and political action.

It would be unthinkable to lose our wonderful fungal species before they've even been named, or their stories told. • **PW**

Thanks to Tom May for his assistance with this article.

Climate change affects plants in many ways

VNPA MEMBER AND KEEN BUSHWALKER **DENISE FERNANDO** IS A POSTDOCTORAL BOTANIST AT LA TROBE UNIVERSITY RESEARCHING METAL ACCUMULATION IN PLANTS. SHE RECENTLY BEGAN DELVING INTO THE POTENTIAL RELATED EFFECTS ON PLANTS OF GLOBAL CLIMATE CHANGE.

Incremental shifts in plant health driven by climatic factors may not be immediately obvious. Long-term effects are difficult to evaluate, particularly where data pre-dating climate change impacts are scarce.

The Intergovernmental Panel on Climate Change (IPCC) develops evidence-based evaluation of changing weather patterns, useful for studying associated plant physiological damage.

Funding by the Australian Research Council is enabling me to study plant over-exposure to manganese, a heavy metal that is common in soil and essential to plants in trace amounts.

My research focuses on the varying abilities of certain eastern Australian rainforest trees, Australian agricultural plants and American maples to tolerate excess manganese.

Eastern Australian soils are naturally enriched in both manganese and aluminium, which are mostly chemically bio-available to plants. These ecosystems support highly specialised native floras evolved to tolerate such conditions, by metal exclusion or by accumulation.

Manganese and aluminium toxicity are problems for crop and pasture plants in eastern Australia (particularly NSW and Queensland), where extreme weather can cause waterlogged or very dry soils, both conducive to metal release for plant uptake.

Metal-tolerant native plant species are therefore invaluable for improving our understanding of how such tolerance occurs. Excessive metal accumulation in the leaves of some species is even thought



Left: Checking rainforest trees, Queensland. Some of these trees growing on manganese-rich volcanic soils are extraordinarily tolerant to manganese, and remain healthy while accumulating potentially lethal amounts in their leaves.

Right: Physiologically stressed maple tree leaves on the Allegheny Plateau, Pennsylvania, USA.

to provide chemical defence against insect herbivory.

In contrast, North American maple trees growing on soils relatively low in manganese have been in decline – including becoming increasingly susceptible to insect attack. This has been linked at least in part to manganese toxicity induced by altered climate conditions. Rising temperatures and drier seasons are among other climate stressors.

Human-induced climate change damage to plant communities initially became apparent through alterations to soil chemistry by decades of acid rain that caused plant nutritional imbalance and over-accumulation of metals. In some regions, soil metals that were previously biologically unavailable to plants became bio-available upon acidification.

Although the causes of acid rain have now largely been addressed, at least in developed countries, the effects of early practices are still evident. However, other altered climate variables such as higher temperatures and rainfall, drought, increased UV radiation and elevated atmospheric CO₂ and ozone levels pose new threats to the future health of plants.

Taken individually, these factors alter plant life; but their mutual interactions have far worse effects.

Last year I spent six months in Pennsylvania, USA, studying the phenomenon of North American forest decline. I undertook fieldwork to examine manganese accumulation in



the leaves of Red Maple and Sugar Maple.

These trees are affected by physiological stress as shown in symptoms of nutritional imbalance, disruption to photosynthesis, damage from free radicals (highly reactive chemical fragments) and insect attack.

Certain soil conditions and higher air temperatures cause manganese over-accumulation in leaf tissues, while other factors such as extended periods of UV radiation trigger damaging manganese toxicity mechanisms, the effects of which are not initially obvious.

But a gradual downward spiral begins, where visible symptoms of ill-health such as tree-crown dieback, insect infestation and malnutrition become noticeable over consecutive seasons.

This occurs as physiological stress is compounded and plants are weakened, becoming increasingly vulnerable to disease and pest attack. Leaf analysis generally shows nutrient imbalance, high manganese content and free radical damage.

The implications for the welfare of both cultivated and native plant communities in eastern Australia should be concerning, given that our changing weather patterns include increasing air temperatures, longer periods of sunshine, greater frequencies of extreme flooding events, and drought.

These climatic factors can drive manganese toxicity stress at both soil and plant levels by further enhancing manganese availability in soils that are naturally manganese-rich, while also greatly increasing the potency of damaging physiological mechanisms within plants. • PW

Viewin' the Tuan

VNPA NATUREWATCH VOLUNTEERS HAD AN EXCITING FIND IN WOMBAT FOREST OVER THE ANZAC DAY LONG WEEKEND. NATUREWATCH COORDINATOR CHRISTINE CONNELLY REPORTS.



PHOTO: KEN STERNELL, COURTESY PARKS VICTORIA

Above: A Brush-tailed Phascogale or Tuan.

Finding a number of candid photographs of the threatened Brush-tailed Phascogale (Tuan) on a remote sensing camera during a field activity on Saturday 26 April was a thrill for NatureWatch volunteers.

The photos were collected as part of our 'Caught on Camera' project. This is a long-term community-based wildlife monitoring project looking at the response of mammals to fire in Wombat State Forest, near Blackwood.

Gayle Osborne, Secretary of Wombat Forestcare, was especially enthused by the find. "Capturing an image of a Brush-tailed Phascogale at this location is really rewarding," she said.

"This photo establishes its presence in an area for which there are no current records. It's the third Tuan sighting from our camera studies in the southern section of Wombat Forest."

This new record shows the importance of the Caught on Camera project as a tool for monitoring wildlife. It also shows that comprehensive research needs to be carried out to establish the value of Wombat Forest as habitat for threatened species.

Brush-tailed Phascogales are small, males weighing up to around 300 grams. They are well known for their intensely black 'bottle-brush' tails, which can be up to 23 cm long.

They are members of the Dasyurid family, or carnivorous marsupials, which include the quolls, antechinuses and Tasmanian Devil. Tuans are nocturnal and primarily arboreal, usually sleeping during the day in a hollow and emerging at dusk to forage.

Right: A curious Tuan arrives just before 5am and explores the bait station. It stays for an hour then disappears, presumably to sleep in a hollow. Probably the same animal returns at 9pm and hangs around until just after midnight!

They feed mostly on large insects, including spiders and centipedes, and need a large area of bushland in which to forage.

The species has some interesting quirks. The hind foot can be rotated backwards, so that they can climb upwards or downwards with ease.

Mating occurs in early winter and, as with antechinuses, males are so worn out from competition that they generally die soon after their first mating period. They are the largest mammal in which this is known to occur. Females also rarely survive to their second year, and usually only raise one litter.

The Brush-tailed Phascogale (*Phascogale tapoatafa*) is listed as 'threatened' in Victoria and is considered 'vulnerable' according to the Advisory List of Threatened Fauna.

Its decline in Victoria is most likely due to clearing and fragmentation of its habitat. Tuans can be found in the foothills east and north-east of Melbourne; the Brisbane Ranges; around Ballarat, Heathcote and Bendigo; NE Victoria from Broadford to Wodonga; and far western Victoria from Mt Eccles to Apsley. Wombat Forest is an important central area of habitat for this fascinating animal. • PW

Caught on Camera is running in the Wombat until the end of June and will start in Bunyip State Park in August. If you'd like to volunteer, contact Christine on christinec@vnpa.org.au or 9341 6510 (Thurs/Fri).



PHOTOS: CAUGHT ON CAMERA



ROYAL PARK

lungs of the city

GEOFF DURHAM DESCRIBES THE MANY VALUES AND ATTRACTIONS OF THIS THREATENED PARK.

In the peaceful Australian Garden near the corner of Royal Parade and Gatehouse Street.

A furore is raging over the proposed East-West Link freeway and tunnel.

Twelve months ago, in *Park Watch* for June 2013, Victoria Strutt wrote of the adverse impacts the tunnel would have on the park.

She also outlined the incremental reduction of Royal Park from its original 1036 hectares, reserved in 1854 by C. J. La Trobe, Victoria's first Governor, to the present 180ha. Major excisions have been the Zoo, the sell-off of land for housing in the late 19th century, and the Royal Children's Hospital (RCH), officially opened in 1963 and recently redeveloped.

Most of the park is given over to sports grounds and other facilities, notably a nine-hole public golf course, tennis courts, various ovals and the State Netball and Hockey Centre with its large buildings, extensive car parks and obtrusive light poles.

But this article is not about these or the impact of the East-West tunnel. Its focus is the park's present passive

recreation areas, open space and conservation values.

Royal Park is managed by Serco Services for the Melbourne City Council, and in my opinion it is very well managed.

In 1998, after much community consultation, the council produced a Master Plan for the park. An objective of the plan is "to provide a guide for long-term development of the Park in a way that will ... evoke the original Australian landscape character of land and space ..." with an emphasis on indigenous eucalypts, Drooping Sheoak and associated species.

The plan is still being implemented, with some deviations. There has been much tree planting around the perimeter and scattered plots of indigenous trees and shrubs throughout the park, enhancing bird habitat and bird numbers.

Around the circular grassland path and along the Macarthur Road path are plots of indigenous grassland plants, including the unusual 'Blue Devil', *Eryngium ovinum*.

Mixed plantings over the years have resulted in many fine specimens of River Red Gum, Sugar Gum, Moreton Bay Fig and Spotted Gum.

'Parks are the lungs of a city' is a phrase that comes to mind when I visit the park, particularly its highest point - the open grassland area behind the RCH. It seems that William Pitt the younger (British Prime Minister, 1766-68) first used the phrase, although it is often attributed to American landscape architect Frederick Law Olmstead in relation to Central Park, New York.

Open to the wind from every direction and with no overhead wires, this must be the best kite-flying site in inner Melbourne. There are, in Baron Ferdinand von Mueller's words, 'commanding views over the landscape', and the complete sky is open for stargazing.

The intention (partly achieved) is to restore this area to native grasses, but ideally this requires the use of fire, which is inhibited because of the proximity of the air-conditioning intakes of the new RCH.

Elliott Avenue and Macarthur Road, the West Coburg tramline and the Upfield



Above: Looking towards the city from the native grassland 'circle'.

Left: One of Royal Park's magnificent eucalypts. Photo from David Tatnall's exhibition 'Royal Park – the Last Summer'.

railway line cut across the park. The popular Capital City bike path runs along the northern side of the railway line.

The section south of Macarthur Road features the Australian Garden on the corner of Royal Parade and Gatehouse Street, a convenient and attractive landscaped picnic area with a pond, pagoda and toilets.

Adjacent is Walmsley House, one of the 36 prefabricated iron houses imported by La Trobe in 1854 and on this site since at least 1862. It is Victorian Heritage registered. Nearby are some very old and gnarled Peppercorn trees.

A drainage line running north from here close to The Avenue features River Red Gums. It leads to the Burke and Wills memorial at the spot where in 1860 the doomed explorers set off with much fanfare on their expedition to cross Australia from south to north.

Near the intersection of Elliott Avenue and Flemington Road are two features of note: an impressive metal sculpture, 'Fruition' by Matthew Harding, and 'The Billabong', a dam-like construction with granite boulders providing a quiet retreat behind an embankment that is an effective noise barrier.

On the slope to the north of Elliott Avenue are open woodland, thick native bushland and the unobtrusive Urban Camp with two 'sentry boxes' and Anzac Hall – all that remains of the World War II military camp. Between the netball/hockey complex and the railway line are

terraces from the old Melbourne City Council nursery.

North of the railway are three significant conservation areas. One of these is said to be the only true remnant bushland in inner Melbourne. It is east of Manningham Road above the Ross Straw Field on the slope up to the railway cutting – a strip of natural bush of a couple of hectares with over 60 species of indigenous plants. For several years a 'Friends of Royal Park West' tended the area and enhanced it with appropriate plantings.

On either side of Oak Street is Trin Warren Tam-Boore (the Royal Park Wetlands), constructed at a cost of millions of dollars as part of the development of the 2006 Commonwealth Games village. The wetlands are fed by the degraded Royal Park Creek and stormwater from the netball/hockey centre and surrounding streets.

This is a highly successful creation of waterbird habitat, and has a bird hide. After making its way through a series of ponds, any excess cleansed water ends up in tanks for irrigation or in Moonee Ponds Creek.

At the intersection of Manningham and Oak streets is a small triangle of remnant indigenous grassland.

East of the wetlands and south of the creek, a slope which was a dumping ground for rubble, concrete and logs is now prime habitat for White's Skink. This diurnal lizard, about 20cm long,

lives under the rubble slabs on which it basks. Enhancement works and a path have recently been undertaken.

The remainder of the northern area is sports fields and a golf course, irrigated with reclaimed water from Trin Warren Tam-Boore.

The park has a web of paths for walkers, joggers and cyclists. There are off-lead, on-lead and no-dog areas and plenty of places for simple relaxation.

The most precious thing in any metropolitan area is open space, and as the population of inner Melbourne grows, this becomes more important than ever.

In the suite of parks that contribute so much to Melbourne, Royal Park is prime open space. That is its particular significance.

Its threatened despoliation is deplorable. • PW

Geoff Durham will lead a two-hour 'Easy-going Amble' in Royal Park South on Saturday 26 July. Bookings: **9523 5559**.

EAST-WEST LINK: 20% of Royal Park severely impacted

- 5200 trees to be cut down
- Trin Warren Tam-Boore wetlands trashed
- Threatened plants and animals affected
- Cultural heritage impacted
- Loss of sports fields and open space
- Noise and vibration to affect Zoo animals

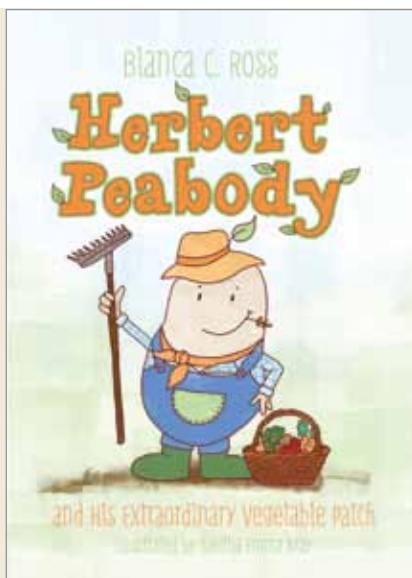
Herbert Peabody and his Extraordinary Vegetable Patch

By Bianca Ross,
illustrated by Tabitha Emma Bray.

Farinet, 2014. Hardback, 120 pages.
RRP \$18.95. To order, email
sales@herbertpeabody.com

One of our most pressing issues is ensuring that the next generation has the knowledge and love of nature to be able to protect it.

Part of this is connecting children with where their food comes from, and giving them the skills and motivation to grow their own. This engaging book does just that.



Herbert Peabody is a farmer in a small town who supplies produce to Theo Knead-A-Lot's local bakery. When Herbie's niece and nephew come to stay, they initially spend their time in front of screens, but with encouragement from Herbie they learn just how satisfying growing and eating your own food is - much more fun than phones and TV!

The book is a great resource for parents and teachers. Its themes can be woven into the curriculum in many ways: units about healthy eating, plant growth or communities, to name a few. More information and teaching materials are available at www.herbertpeabody.com

It's also perfect for reading aloud, or shared reading. Herbie encourages the plants with this chant:

Yo, grow!
Yo, grow,
Yeah, grow,
Yo, GROW!

Imagine a child or class jumping up and down to this, never forgetting it, and going on to teach their children in turn.

With its engaging, charmingly illustrated characters, toe-tapping rhymes and vitally important messages, this book is sure to become a firm favourite. • PW

Review by Elizabeth Howes.

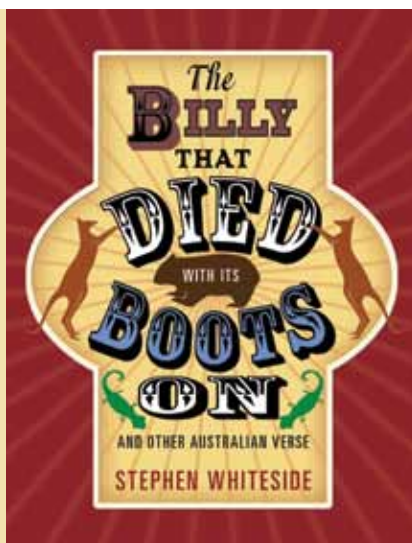
The Billy that Died with its Boots On

By Stephen Whiteside,
illustrated by Lauren Merrick.

Walker Books Australia, 2014.
Paperback, 160 pages. RRP \$22.99.

I once taught a poetry unit to a Year 3 class. We discussed the various elements of poetry and verse, and the students wrote their own poems. But the most entertaining part was reading and performing poems aloud. Here's a book which is perfect for that.

The Billy ... is a collection of Australian verse by Stephen Whiteside, a GP in one life and a poet in another (see *Park Watch* March 2014). In the introduction, he recalls his father reading Banjo Paterson and C. J. Dennis poems aloud to him: "The poems sounded almost musical... they were at their best when read aloud".



Most of the poems use ballad rhythm – compare Paterson's 'The Man from Ironbark' – though a few limericks feature as well.

The subjects are wide-ranging and very Australian, including the beach, the bush, the snow, and the quirks of everyday suburban life. Some are light-hearted: dropping a piece of onion from a sausage sizzle on your shoe, or an ice cream falling off the cone.

Others are serious, emotional and suspenseful, such as escaping a bushfire, written from a child's point of view. The poem on Ned Kelly won a special award last year. The illustrations are delightful.

My favourites are 'Two Little Raindrops' (who fall in love, become separated and reunite in the Southern Ocean); 'Weather Report', which rolls satisfyingly off the tongue ("Today it's fine/At Jindabyne/It's very dry/At Gundagai/ Cold and bitter/Mitta Mitta/Still a chill/ At Marysville"); and 'If I was a Sailor', written in an evocative sea shanty style.

This collection will give children and adults hours of read-aloud and educational entertainment, and develop a love of Australia's country and culture. • PW

Review by Elizabeth Howes.

Recreating the Country

A blueprint for the design of sustainable landscapes

By Stephen Murphy

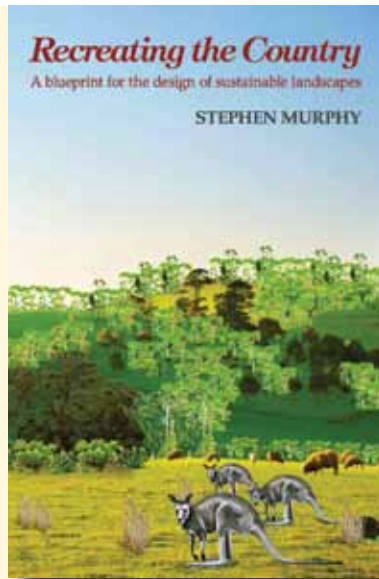
Published by emPress for Ballarat Region Treegrowers, 2009.

Paperback, 142 pages. RRP \$25.00.
To order see www.afg.asn.au or www.empresspublishing.com.au

There's a lot of fascinating detail in this book, and it's all in the name of how to create 'shelter belts' and 'plantations' that will last at least 200 years, as well as 'recreating' the landscape and providing some income to the landowner.

Early settlers knew about the value of shelterbelts in protecting stock, and planted rows of cypresses or sugar gums. But their biodiversity value has often been questioned.

Some more recent shelterbelts, or 'landcare' belts, are now decades old, so their effectiveness in achieving biodiversity and shelter values can be studied.



Stephen Murphy's book brings these assessments together, with a step-by-step guide on how to get better value both in creating shelter in agricultural landscapes and in 'recreating' indigenous species habitats. He includes the value of being able to harvest some species in these plantings.

Murphy has the credentials to write this book. He has run a native plant nursery (with his wife Lena) and has been actively involved in managing reserves and revegetation projects over 25 years. And he has consulted a wide range of academics and experts.

So if you're planning a 'shelterbelt' (is this now the right word?), what are the principles that must underpin your design?

Murphy has developed 10 design principles, covering adequate numbers of plant species, genera and families; adequate potential food sources for wildlife; adequate plantation width and potential to develop habitat diversity (e.g. hollows, fallen timber); capacity to 'connect' to remnant vegetation; proximity to permanent water; and sufficient numbers of structural layers.

He then takes five examples of extant 'plantings' and assesses their likelihood of sustainability, based on how they measure up against the principles. This is a brilliant way of understanding the principles and what they mean in practice.

There is a huge need for 'revegetation' (and natural regeneration) over much of Victoria, for both economic and ecological reasons. This book is a very useful 'how-to' guide.

A film, 'Rediscovering the Country', has recently been made to complement the book. It is being launched at Melbourne Museum on Friday 20 June; details at www.rediscoveringthecountry.org • PW

Review by Karen Alexander.

Flora of Melbourne (new edition)

By Marilyn Bull. 600 pages. RRP \$89.95

A new edition of the comprehensive guidebook *Flora of Melbourne* will be launched on 21 June and be available from July.

The book has 1367 plant descriptions, with line drawings for almost all and colour photos for more than 90%. Each plant has its identification features highlighted.

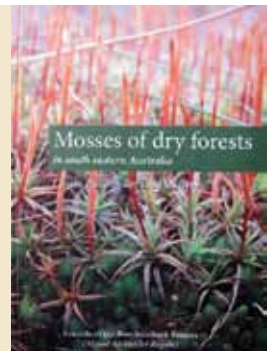
Seventy-nine plant communities (EVCs) are described and listed in a cross-reference to show most of the species found in each EVC. There are maps of Melbourne's soils, and locality maps to show the 222 reserves and parklands used in the descriptions. • PW

For more information contact Marilyn Bull at graybull52@bigpond.com



Mosses of dry forests

By Cassia Read and Bernard Slattery. 101 pages. RRP \$15.00.
VNPA members \$12.00, inc. postage, from FOBIF, PO Box 322, Castlemaine, Vic. 3450.



This new book was produced by the Friends of the Box-Ironbark Forests, generously supported by the Norman Wettenhall Foundation. The authors have worked with volunteers over a number of years to develop an understandable guide for both students and beginners.

Dozens of moss species are described and illustrated. The introduction explains their life cycle and ecological importance, and there are tips on identification.

Discovering mosses opens a new, fascinating and beautiful world. • PW

A visit to Kurth Kiln

VNPA MEMBER AND BWAG LEADER JULIE HUNT TOOK EIGHT PEOPLE ON A WALK, TALK AND GAWK IN APRIL TO THIS INTERESTING SPOT IN THE FOREST NORTH OF GEMBROOK.

Old forestry workers' huts at Kurth Kiln.

Kurth Kiln Regional Park is about 70 km east of Melbourne CBD and 7 km north of Gembrook on the Gembrook – Launching Place Road, with a 1 km drive on a gravel road to reach the Kiln itself. It is well signposted.

There is a Parks Victoria park note (visitor guide) for the 3,500 ha park.

The Kiln was built during World War II to produce charcoal, which was used to make gas as a substitute fuel for cars and trucks. It was a revolutionary new design that produced high quality charcoal continuously, and worked round the clock, seven days a week, for about a year (until petroleum supplies resumed).

The site was chosen because there was plenty of timber left from ring-barking and the 1939 bushfires. The adjoining Tomahawk Creek supplied the water required, and the kiln was built against a bank to enable easy loading of wood into it.

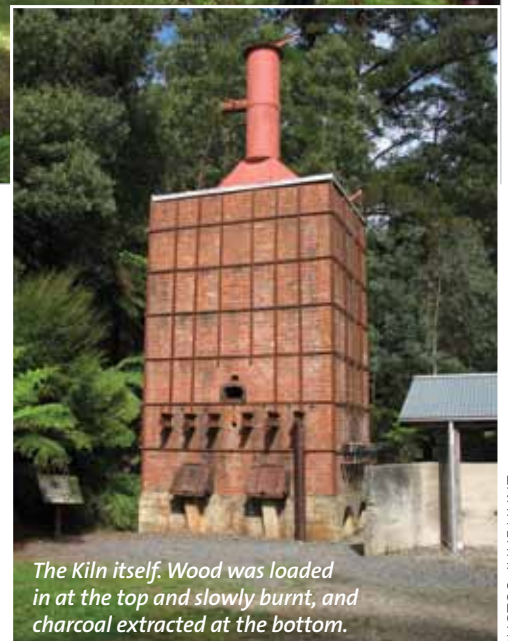
The kiln was invented and patented by Dr Ernest Edgar Kurth, first Professor of Chemistry at the University of Hobart. Dr Kurth was born at Broken Hill (of a German family) and brought up on the West Australian goldfields – a pathway to employment taken by many Victorian and New South Wales families around the end of the 19th century, following the 1890s depression.

As well as the interesting kiln complex and exhibits, this is a lovely area for

camping and walking. The loop track around Tomahawk Creek is particularly pleasant.

Lyrebirds are often sighted in the area, and there's a colony of wombat holes just off the track at one point.

The Friends of Kurth Kiln group of volunteers was formed in 1999 under the auspices of Parks Victoria. The group is actively led by Alfred and Ursula Klink, who this year published an excellent little book *E. E. Kurth and his work: Reflections on a creative life*. • PW



The Kiln itself. Wood was loaded in at the top and slowly burnt, and charcoal extracted at the bottom.

PHOTOS: JULIE HUNT

Sound familiar?

The following paragraphs appeared in *New Scientist* on 3 May as part of an interview with Russian zoologist and bat specialist Suren Gazaryan, who received the 2014 Goldman Environmental Prize for Europe.

“Q: What caused the shift in policy?”

A: Well the big problems began when Vladimir Putin became president in 2000. He put environmental protection within the remit of the Ministry of Natural Resources, which is in charge of exploiting nature, and weakened environmental laws. In the Caucasus, the authorities started taking public lands – including parts of the Sochi National Park, a world heritage site – for tourist developments, roads and projects for the Sochi Winter Olympics.

Q: What was the impact of those changes?

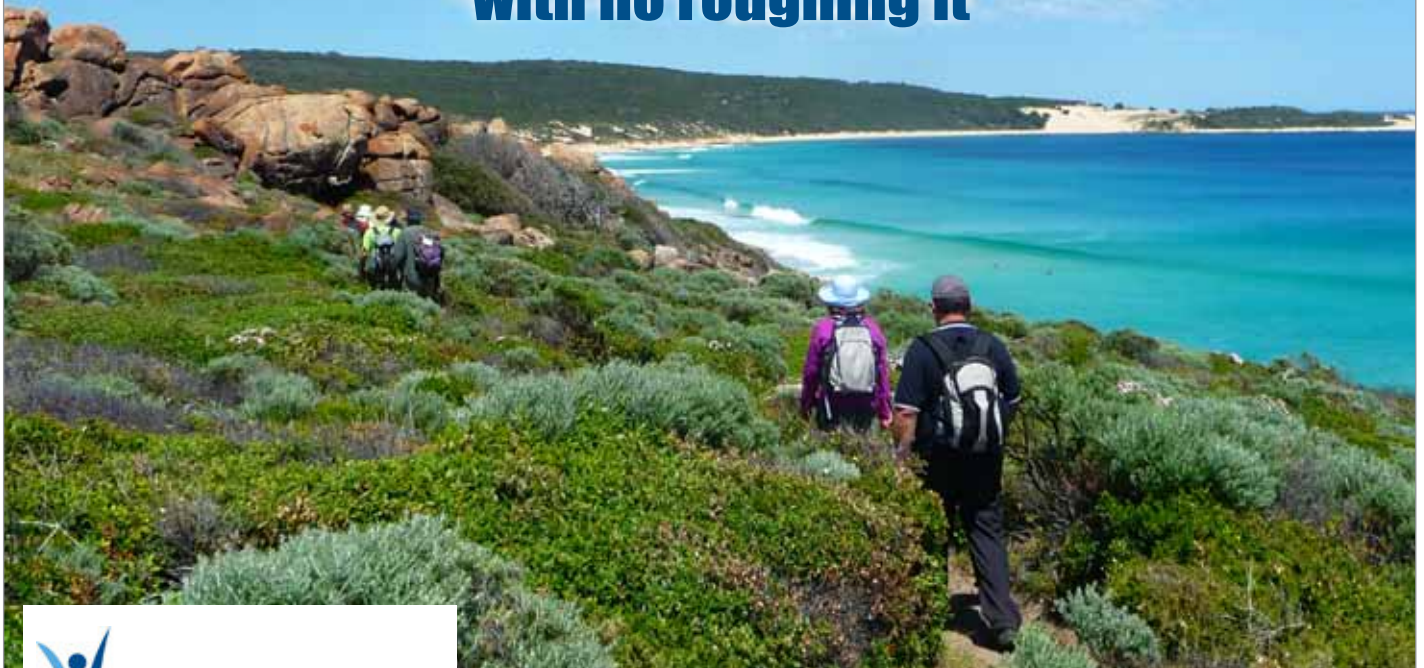
A: Some caves where I did research have been turned into show caves for tourists and no longer have any bats at all. There was also illegal construction of huge palaces for leaders such as Dmitry Medvedev and Putin.”

Suren Gazaryan is now living in exile in Germany.

It's enough to make you wonder where our current group of environmental vandals in State and Federal parliaments got their ideas from.

Euan Moore

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