

PARK WATCH



HOW THE GOVERNMENT RATES
LEADBEATER'S STILL AT RISK
PARKS MANAGEMENT PLANNING
NATURE'S MEDICINE
ARE WE TAMING THE WILD?
BRINGING BACK COASTAL NATURE
NATURE ACTIVITIES FOR WILD FAMILIES

DECEMBER 2017 NO 271



VICTORIAN
NATIONAL PARKS
ASSOCIATION
Be part of nature



Be part of nature

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VNPA'S VISION

The Victorian National Parks Association vision is to ensure Victoria is a place with a diverse and healthy natural environment that is protected, respected and enjoyed by all.

EDITOR

Meg Sobey

GETTING INVOLVED IN VNPA

Everyone can help in the conservation of Victoria's wild and beautiful places. You can:

- make a donation
- become a regular giver or member
- volunteer. You'll be welcome in the office, on a campaign or in a park
- leave a bequest to VNPA in your will.

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You're always welcome to contact the editor to discuss ideas for articles.

Phone the VNPA or email meg@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.

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FRONT COVER

Ornate cowfish, one of many species currently being spotted during VNPA's Great Victorian Fish Count. Get involved: www.vnpa.org.au/great-victorian-fish-count
Photo: John Gaskell.

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Authorised by Matt Ruchel, Executive Director,
Victorian National Parks Association.



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From the President

Over the past two centuries Australia has had one of the highest plant and animal extinction rates globally. Today we are spending millions of dollars each year trying to reverse the slide towards extinction that many species face.

You'd think then that news that the population of a critically endangered species was greater than first estimated would be cause for joy. But maybe not all is as rosy as it first appears.

Leadbeater's possum is listed as critically endangered. It's been in the news recently with reports that its population is higher than was estimated when its conservation status was determined.

But is the population really higher, or are the reported increases an artefact of increased search effort? Long-term monitoring sites set up by researchers at the Australian National University show an ongoing decline in the number of sites where the possum occurs. Meanwhile its optimum habitat of old-growth mountain ash forest is still being logged.

This means that one of the two major threats to the species' survival (the other is fire) has not been mitigated and remains a threat.

The timber industry has been quick to seize on the increased reporting rate as a reason to 'down-list' the possum's conservation status and to open up more areas of old-growth mountain ash forest to logging.

But these forests are the optimum habitat for the possum. Logging the forests will ensure that any reprieve will be short-lived. It will also mean

that other threatened species living there, such as the greater glider, also get pushed closer to extinction.

This reminds me of my time living in Tasmania when, after reports of the rediscovery of the thylacine, one prominent conservationist wrote to a newspaper: "Now that the Tasmanian tiger has been rediscovered, what will the government do to ensure that it becomes extinct?" As in Tasmania, it appears that the Victorian Government wants state faunal emblems that are extinct.

On a similar unfortunate note, there is a recent report that a key breeding area in Tasmania for the swift parrot, also critically endangered, was recently logged at short notice, just as a trial of artificial nest boxes for the species was about to get under way.

The swift parrot is one of only two migratory parrots in the world. It nests in Tasmania during spring and summer and spends winters in the box-ironbark woodlands of central Victoria and NSW. It's not just the actions of the native forest logging industry in our state that are having an impact on our wildlife.

Earlier this year I had the pleasure of helping VNPA staff member Caitlin Griffith with one of the Wild Families activities. In this case it was bird watching and how to use aids such as field guides and binoculars. It was a fun day as families picked up some basic skills that the parents can reinforce with their children.

One young lad looked through the binoculars and commented "it's all black, I can't see anything", but a few minutes later he was all smiles as with the same binoculars he watched

an eagle soar overhead. Perhaps we have here a future leader of the conservation movement.

If you have a young family I urge you to join Caitlin on one of the Wild Families activities that she will be running during 2018. They will be fun for all ages.

Finally I would like to thank all our staff, members and supporters for their contributions over the year and wish you all a safe and happy festive season. I hope you will all have time to get out and enjoy our wonderful natural environment, whether on the mountains, at the beach or in the bush. • PW

Euan Moore, VNPA President

“

You'd think then that news that the population of a critically endangered species was greater than first estimated would be cause for joy.

”

Members elect council at AGM

Thank you to all our Members who came along to the VNPA's Annual General Meeting on 10 October. Attendees enjoyed drinks and conversation and heard from our guest speakers from Parks Victoria's CEO Matthew Jackson and Chief Conservation Scientist Mark Norman, who outlined the opportunities and challenges faced by Parks Victoria.

VNPA Members also helped to elect a new Council and we welcome the continued service of our dedicated volunteer councillors – Euan Moore (President), Bruce McGregor (Vice-President), Michael Forster (Secretary), Gary Allan (Treasurer), Lara Bickford, Ann Birrell, Russell Costello, Michael Feller, Deb Henry, Dianne Marshall and James Thyer. Jan Hendrik Brueggemeier has also been co-opted onto Council.

We value the contributions from all our Members, which means that together we can continue our efforts to ensure that Victoria's natural environment is protected, respected and enjoyed by all.

New to the VNPA community or want to learn more about our work?

Come and join us for a stroll to learn about our work protecting nature, taking adventures, and education programs. Meet VNPA Councillors, volunteers and staff to enjoy a picnic dinner beside the Yarra River on Thursday 22 February. Registration essential. RSVP: amelia@vnpa.org.au or 9341 6500.

Final chance to dive in to the Great Victorian Fish Count

The Great Victorian Fish Count successfully made its first splash on 18 November, and continues until 17 December. So there is still plenty of time to get in the water! There is a great opportunity to get the whole family involved with our Wild Families activity on Saturday 16 December. To find a dive or snorkel visit www.vnpa.org.au/programs/great-victorian-fish-count

NatureWatch 10 year anniversary celebration

This year marks a decade of VNPA's citizen science program NatureWatch and its grass-tree monitoring project in the Brisbane Ranges. Join us on Sunday 10 December in the Brisbane Ranges National Park to celebrate! For more details, visit www.naturewatchtenyears.eventbrite.com.au or contact NatureWatch Coordinator Christine Connelly on 9341 6510 or christinec@vnpa.org.au

Thank you - and Season's Greetings!

We would like to thank each and every one of our Members, donors and readers of *Park Watch* for your generosity and support of our work this year.

With the deepest gratitude from all of us at the Victorian National Parks Association.

PHOTO: ED DUNENS



Member for life

THE VNPA COUNCIL AWARD HONORARY
LIFE MEMBERSHIP TO PEOPLE WHO HAVE
PERFORMED MERITORIOUS SERVICE TO VNPA.
KYLE MATHESON IS THE LATEST RECIPIENT.

Kyle Matheson and his wife Elizabeth joined VNPA in 1997.

They had their first excursion with the Bushwalking and Activities Group (BWAG) that winter. It was a base camp in Tarra-Bulga National Park led by the late Arthur Thies.

As a keen runner Kyle was already very fit, and thought a 17 kilometre walk would be an easy stroll, but it turned out to be far more difficult than he anticipated. He realised then that bushwalking is quite different to running and a far better exercise overall; including exercising the brain.

Kyle was deeply impressed by the amount of knowledge Arthur had about the bush, and how willingly he passed that knowledge on to participants in his walks. Kyle was a keen observer of the bush too, and over many years has built up a considerable knowledge of the many native birds, plants and especially orchids of our parks and reserves.

Together with Elizabeth, Kyle continued to walk with BWAG, and he has led many of those walks for over a decade. He says he has always been inspired by the way so many walk leaders opened insights into our natural environment.

Kyle joined the BWAG organising committee in 2001 and became its convener the following year. His specific objective was to bring more young people on board to help VNPA to cater to a wider audience. A few years later he passed that leadership baton on, but volunteered for BWAG's treasurer role.

During his time with BWAG Kyle also participated on Bushwalker Search and Rescue efforts and helped the mentoring of walk leaders. He and Elizabeth still act as emergency contacts for BWAG trips.

Kyle joined the VNPA's Council as BWAG's representative in 2008, taking particular interest in the finance committee. In 2011 Kyle ably took on the role of VNPA treasurer, filling a critical gap in VNPA's administration at the time. Kyle continued to serve on the Council until 2016.

Kyle's exceptional institutional memory has proven most valuable and he has provided wise counsel in all of the roles he has undertaken with our organisation. Perhaps most memorably, he has unfailingly provided his advice, and made his contributions, with great cheer and goodwill.

We thank Kyle for his dedication and wonderful service to VNPA for the last two decades. • PW

Victorian national parks by premier

WHY HAS NATIONAL PARKS CREATION HAS STALLED UNDER THE ANDREWS LABOR GOVERNMENT?
BY MATT RUCHEL AND SARAH REES.

Just a couple of weeks before the 2014 state election, Labor's then-environment spokeswoman Lisa Neville complained that the former Napthine government had the worst record on national park creation since Henry Bolte was premier.

"The Napthine government is the first government since Bolte which failed to open a new national park, while loosening protection that prevented mining, development and cattle grazing in national parks," Neville said at the time.

Shortly after that Labor released its pre-election environment pitch – *Our Environment, Our Future*. After four years of inaction, Labor was promising to put protection of the environment "back on the agenda". It also claimed it had "a long history of extending our national parks and reserves".

At least part of that was correct. Labor does – or did – have a "long history" of creating parks and reserves. The Cain-Kirner government, in particular, did more in terms of park creation than any other government in the state's history.

Almost three years later, how is the Andrews Government fairing? Far from putting new national parks back on the agenda, far from being part of that "long history", Labor could be set to claim an ignominious title.

By our calculations, no Victorian government over the past 60 years has a worse record when it comes to park creation than the Andrews Government. Not the Kennett government, not the Bolte government. Not even the Baillieu-Napthine government, so criticised for its inaction.

In a few weeks, at its third year anniversary, Daniel Andrews will have been in office 1095 days as premier, but Labor has so far created just 7170 hectares of parks under the national parks act, and that's being generous. It's an average of just 6.55 hectares per day, even after taking into account additions currently before the parliament.

To put that in the context of Labor's "long history", the Cain-Kirner

government (1982-92) created more than 1.96 million hectares of parks, including the Grampians, Alpine, and Dandenong Ranges national parks. That's equivalent to 511.1 hectares for each of the 3,837 days it was in office – a staggering 86 times more than the current Labor Government.

The Bracks-Brumby government (1999-2010) can also hold its head up. It added 364,473 hectares of new parks, including the Chiltern-Mount Pilot, Greater Bendigo, and Great Otway national parks. That is equivalent to 89.77 hectares for each of the 4,060 days it was in power.

Or there was the Hamer-Thompson Liberal government (1972-82). It too has a proud history, creating the Snowy River, Baw Baw and Croajingalong national parks, among others. In total, it added 781,932 hectares, or an average of 222.9 hectares for each of the 3,508 days it was in power.

Even the Kennett government (1992-99) created 127,864 hectares of parks over its 2,570 days, or an average of 49.75 hectares per day, some eight times more than the current Labor Government.

And, dismal though its record was, the Baillieu-Napthine government still performed better on park creation than the current Labor Government, creating a daily average of 6.77 hectares of parks over 1,464 days.

You might think that Labor's poor record on park creation partly reflects the idea that most of the low hanging fruit has now been picked. This, however, is not the case. The ash forests of the Central Highlands have been listed globally as critically endangered, remaining under threat from logging, fire and fragmentation. And the recently released statewide biodiversity strategy flags at least a 2.1 million hectare gap in the state's reserve system.

Renowned filmmaker and naturalist Sir David Attenborough has backed the idea of a Great Forest National Park to ensure the continued

existence of biodiversity, safeguard water supplies, provide spiritual nourishment for ourselves and future generations, and of course, to protect the state's critically endangered faunal emblem, the Leadbeater's possum.

Yet the state government seems to have fallen silent on the idea.

As well as the need to protect the Yarra Ranges and Central Highlands and parts of East Gippsland to help ensure the survival of up to 75 forest dependent species, there are ecologically significant tracts of public land in south western and central western Victoria that need to be preserved.

After winning the November 2014 state election, Labor promised a collaborative approach to new parks, announcing a taskforce of representatives from environmental groups, forestry unions and the logging industry to work towards a consensus on the creation of a Great Forest National Park.

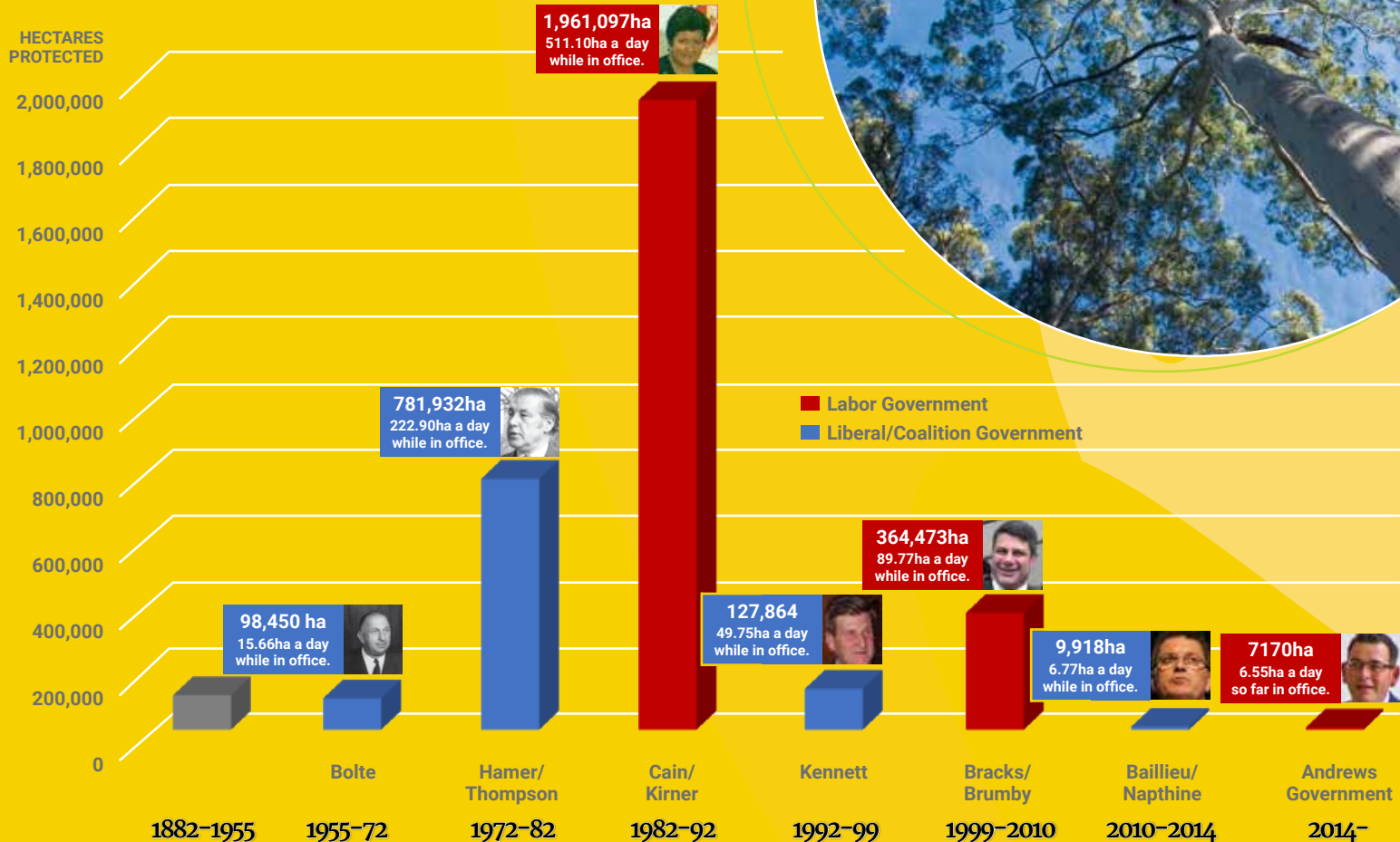
Sadly, after two years of intensive meetings, the taskforce has been unable to move beyond a broad statement of intent which agreed on the need for the development of new parks and reserves. It has not met at all in 2017.

Despite Labor's pre-election promise to put the environment back on the agenda, there is currently no sign of any tangible plan to protect dozens of threatened species dependent of Victoria's wet forests.

Instead, the Andrews Government has committed at least \$165 million dollars of taxpayers' money to bailout and purchase a native timber sawmill in Heyfield, grow new plantations, and fund a feasibility study for Nippon Paper to build an incinerator to burn trees and Melbourne's rubbish in Gippsland.

Parks take time to create, sometimes years. But it is not too late for Labor. A year out from the next state election, the Andrews Government now has a clear choice. It can continue to trash Labor's proud legacy of national park creation, or take some tangible steps to change course. A commitment to establish a Great Forest National Park would be a great place to start. • PW

First published in *The Age*, 11 November 2017.



Period	Parks created under the National Parks Act or equivalent (hectares)	Days in office	Ratio: New parks Ha per day in office
1882-1955	108,036		
1955-1972 (Bolte)	98,450	6,288	15.66
1972-1982 (Hamer/Thompson)	781,932	3,508	222.90
1982-1992 (Cain/Kirner)	1,961,097	3,837	511.10
1992-1999 (Kennett)	127,864	2,570	49.75
1999-2010 (Bracks/Brumby)	364,473	4,060	89.77
2010-2014 (Baillieu/ Naphtine)	9,918	1,464	6.77
2014- (Andrews Govt) *	7,170	1,095	6.55

How Daniel Andrews rates on parks establishment

- Created less parks than the Baillieu/Naphtine Government
- 15 times lower than the Bracks/ Brumby Government
- 8 times lower than the Kennett Government
- 86 times lower that Cain/Kirner Government
- 37 times lower than Hamer/ Thompson Government
- 2.6 times lower than the Bolte Government

* Assumes days in office to 2017 anniversary of state election. Historical days in office were obtained from VEC www.vec.vic.gov.au/Results/results-historical-vicpremiers.html.

Calculation of ratio assumes Anglesea Heathlands addition to Great Otway National Park, which is currently before parliament and the addition of the 650 ha Woowookarung Regional Park (Canadian Regional Park), near Ballarat, which is not reserved under the *National Parks Act*, though some of the provisions of the national park act apply and it is managed by Parks Victoria.

This table includes only reserves created under the *National Park Act 1975* and its predecessors and does not include other types of conservation reserves. The data for this analysis largely uses the creation of parks data from Park Victoria plus recent additions www.parkweb.vic.gov.au/_data/assets/pdf_file/0011/639857/Creation-of-Parks.pdf

HEADSHOT PHOTOS:

JOAN KIRNER, SWINBURNE COMMONS
 DICK HAMER, HELLOHELLO56, WIKIMEDIA COMMONS
 HENRY BOLTE, PUBLIC DOMAIN, WIKIMEDIA COMMONS,
 JEFF KENNETT, BBOBKINS, WIKIMEDIA COMMONS
 STEVE BRACKS, ADAM CARR, WIKIMEDIA COMMONS
 TED BAILLIEU, VIKAS D. NAMBIAR, WIKIMEDIA COMMONS
 DANIEL ANDREWS, SWINBURNE UNIVERSITY OF TECHNOLOGY

FOREST PHOTO: COURTESY WOMBAT FORESTCARE

Three years on: how is the state government tracking?

It's been three years of the Andrews Labor Government's term in office, and we are now 12 months out from the next state election.

Of the sixteen nature conservation commitments by the Andrews Government in their environment policy *Our Environment, Our Future*, ten (or 63 per cent) can be considered finished (at least in terms of election commitments) and six have been commenced in part.

The rating here looks at two aspects. Firstly, how well the commitment was delivered; considering issues of policy or program scope, strength, clarity etc. Secondly, the extent of the impact the policy has on conserving the natural environment.

On delivery, the Andrews Government scored 71 per cent due to some strong initiatives in the first few years in office. However, they scored only 48 per cent on impact due to the fact that some commitments, while important, are restricted in impact due to locality, scale or extent of change.

See over on page 10 for more analysis of the Andrews Government at the three-quarter mark. • PW

ANDREWS GOVERNMENT 2014 ELECTION COMMITMENT

Cattle Grazing in Alpine National Park

'Labor will, once again, ban cattle grazing in the Alpine and Red Gum National Park.'

Privatising National Parks

'...we will not allow large scale private development in our national parks and will remove the Government's ability to grant 99 year leases.'

State of the Bays Report

'An Andrews Labor Government will undertake a five-yearly State of the Bay report to monitor the health of coasts, bays and waterways.'

Waterways

'...develop a strategy to improve our riparian land and river ways'.

Anglesea Heathlands

'...incorporate the Anglesea Heath into the Otway National Park'.

Protecting Nature

'...institute a state wide biodiversity strategy to protect our habitats for future generations'.

Canadian Park

'...establish a new Canadian State Park'.

Yarra River Protection

'Labor will introduce a Yarra River Protection Act to guard the river corridor from inappropriate development'.

Private Development at Pt Nepean

'...immediately review the lease to determine its legal status, look to use any powers of the Parliament to disallow it where possible'.

National Parks Funding

'Labor will provide \$5 million to upgrade and provide new facilities in our parks and reserves across the state.'

Pt Nepean Management

'...immediately review the lease to determine its legal status, look to use any powers of the Parliament to disallow it where possible'.

'Labor will, again, protect Point Nepean for all Victorians and seek to ensure it remains open to all Victorians.'

Native Vegetation

'...review the new native vegetation regulations so they can sensibly protect sensitive vegetation'.

Protecting Marine & Coasts

'We will establish a new Marine and Coastal Act, bringing together all management and protections under the one system'.

Protecting Threatened Species

'...will review the *Flora and Fauna Guarantee Act*'.

Forests Protection and the Great Forest National Park

'Labor strongly supports a consensus approach in the establishment of any new national parks ... A Labor Government will consider any reasonable recommendations and proposals reached by consensus of the major stakeholders through the Industry Task Force, but will not impose solutions.'

Creating National Parks

'Labor has a long history of extending our national parks and reserves'

COMMENTS

	Completion Status (has it been finished by the government?)	Delivery Rating (how well was it delivered?)	Impact on protecting the environment
	Yes ✓	1 Very poor 🍃	1 Very Small (e.g. localised)
	Part ➡	2 Poor 🍃🍃	2 Small (e.g. regional)
	No ✗	3 OK 🍃🍃🍃	3 Important (e.g. multiple regions)
		4 Good 🍃🍃🍃🍃	4 High (e.g. state significance)
		5 Excellent 🍃🍃🍃🍃🍃	5 Very High (e.g. national significance)
Legislation passed in 2015 closed the loophole on 'scientific' cattle grazing, hopefully once and for all.	✓	🍃🍃🍃🍃🍃	🍃🍃🍃🍃🍃
Legislation passed in 2015 removed the capacity for 99 leases in two-thirds of the parks estate. There remains inappropriate commercial development pressure in some important national parks.	✓	🍃🍃🍃🍃	🍃🍃🍃🍃
Completed, first report done and released in December 2016. The report presents 50 assessments against 36 indicators across the themes of species including birds and fish, habitats including seagrass and rocky reefs, and critical ecosystem functions including nutrient cycling. Report is understood to have helped inform longer term monitoring priorities.	✓	🍃🍃🍃🍃	🍃🍃🍃
Regional Riparian Action Plan completed and significant funds (\$25 million) invested to commence fencing of riparian land.	✓	🍃🍃🍃🍃	🍃🍃🍃🍃
Legislation introduced to add over 6,000 hectares of the unique Anglesea Heathlands to the Great Otway National Park.	✓	🍃🍃🍃🍃🍃	🍃🍃🍃🍃🍃
Final strategy released in 2017 and \$86.3 million over four years allocated in the 2016/2017 state budget for much-needed nature protection and biodiversity work identified in the Biodiversity 2037. Implementation priorities still unclear.	✓	🍃🍃🍃🍃	🍃🍃🍃🍃
The new 641 hectare regional park established on the outskirts of Ballarat in 2016. Now called Woowookarung Regional Park.	✓	🍃🍃🍃🍃🍃	🍃
The Andrews Government is enshrining in law the protection of the Yarra River. The new legislation identifies the Yarra River and the many hundreds of parcels of land it flows through as one living, integrated natural entity and introduces stronger planning controls to protect against inappropriate development on the Yarra River, including mandatory height limits.	✓	🍃🍃🍃🍃🍃	🍃🍃
Lease over the Quarantine Station at Point Nepean National Park to a private developer lapsed.	✓	🍃🍃🍃🍃🍃	🍃🍃
Parks funding was at chronically low levels when the Andrews Government took office. Funding for the whole parks estate is less than one per cent of the total state budget. \$5 million delivered in 2015, with additional \$10 million+ funding in 2016 and further allocation from Parks & Reserves Trust. \$31.8 million increase in Parks Victoria funding in 2016-2017 budget, mostly over two years, with the bulk to be spent on much-needed core operations such as rangers. Parks funding back to levels similar to 2010, however there are increases in costs and significant threats such as feral animals and weeds which require urgent attention and a boost in resources.	✓	🍃🍃🍃🍃	🍃🍃🍃🍃
A new master plan commenced. A draft was released in December 2016. The final master plan is yet to be released and it is understood that it contains plans for a potentially damaging jetty into the adjacent dolphin sanctuary.	➡	🍃🍃🍃	🍃🍃
A review of native vegetation clearing regulations established with an independent chair and public consultation in 2015 and 2016. New native vegetation regulation has made minor improvements. Final revised regulation still not released.	➡	🍃🍃🍃	🍃🍃🍃🍃
Expert panel appointed and discussion paper released for public comment in 2016. Draft legislation being prepared, which merges Coastal Boards with Catchment Management Authorities, reduces the role of the Victorian Coastal Council and reduces the role of the community. Fails to establish clear powers for marine bioregional planning. Final reform package is at best modest, and in some aspects reduces the role of the community, without significantly improving coastal management.	➡	🍃🍃	🍃🍃
Public consultation held in 2015 and 2016. Discussion paper released, but final package of reform not finished. Concerns from environmental groups that the reform does not resolve long standing problems.	➡	🍃🍃	🍃🍃🍃🍃
A Forest Industry Taskforce (FIT) was established and met between 2015 and 2016. It included representatives from conservation groups, timber industry and union (CFMEU Forestry Division). It produced a Statement of Intent in September 2016, which agreed that there should be new national parks established, and initiated two reports from Victorian Environmental Assessment Council (VEAC). The taskforce stalled and has not met in 2017, and was abandoned by the Andrews Government. The taskforce has failed to significantly slow logging of high conservation value forests, or commence any process for establishing new national parks and reserves. Instead the Andrews Government has purchased, with tax payers funds, the sawmill at Heyfield.	➡	🍃	🍃
While technical correct that historically the ALP has a strong history of creating new national parks, the current Andrews Government has poorest record for creating new parks in the last 60 years (see pages 6-7).	✗	🍃	🍃

Three years on: the good, the bad, and the ugly



PHOTO: MICHAEL RAWLE, FLICKR CC

Delivery of election commitments are important, however governments need to be also judged on their day-to-day management of issues as they arise. This 'housekeeping' over four years in the environment space can be very significant.

While the Andrews Government has been strong on climate change and banning gas fracking, the management in the conservation arena has been a patchy. There have been some welcome interventions on individual logging coupes by the environment minister, in response to community monitoring or identification of important conservation values. The decision to commence a Victorian Environmental Assessment Council investigation in the forests of central western Victoria, including the Wombat, Wellsford, Mt Cole and Pyrenees Ranges state forests, is an excellent move. There have however been a number of clear missteps and blind spots.

The approval and licencing of commercial horse training at the Belfast Coastal Reserve is at odds with good environmental practice, and is arguably unlawful (see article page 23). The unusual approval process for the commercial boat tours at the Prom seemed at best back to front, with government statements supporting the project before any detail plan had been submitted. In the end the government formally endorsed project, but it all seemed to have an air of inevitability.

Probably strangest of the environment portfolio decisions was to ban revegetation except within ten meters on each side of the waterway in significant parts (the north-eastern corner) of the Yellingbo Conservation area in the Upper Yarra Valley. This is far from best practice revegetation or riparian restoration. This sets a very poor precedent.

VNPA has continued to push for the implementation of the Murray River Park. Before the 2010 state election, the Brumby Labor government was on the verge of protecting these reserves as part of the historic river red gum parks package. They were even legislated and handed over to Parks Victoria for management. But they were not formally gazetted or declared before that government lost power. The incoming Coalition government reversed that process and reissued more than 200 grazing licences. See: www.vnpa.org.au/future-parks/river-red-gum-and-murray-river-parks

While the commitment to implement the Murray River Parks was not made by the Andrews Government, it was part of the ALP Brumby government decision. The value of the Murray River Park is recognised in the Andrews Government's Regional Riparian Action Plan as "...contributing towards improving the protection and management of riparian values". The Andrews Government continues to ignore this piece of unfinished business.

The proposed jetty in the dolphin sanctuary zone in front of the Quarantine Station at Point Nepean has persisted throughout the park's master planning processes. It is a very bad idea as it threatens the endangered burrunan dolphins, and will divert scarce resources critical to restoring and adaptively reusing the park's heritage buildings. On the other side of the bay, over-the-top resort, residential and marina development proposals for the Moolap-Point Henry area would waste the opportunity to create a significant conservation park on the front doorstep of a rapidly growing Geelong. Both Point Nepean and Moolap need better protection from Labor.

Importantly, while the state government has funded an increase in the number of park rangers, it is still far from addressing the significant management issues in our parks: the state's deer population is now around one million animals; feral horses remain a significant threat to the Alpine National Park; and there is insufficient funding to deal with many other pest plants and animals.

Meanwhile visitor services, like signage and tracks, are still deteriorating. Our remarkable conservation estate needs far more than the puny half of one per cent of the state budget it currently receives. • PW

Leadbeater's possum still at risk

LEADBEATER'S POSSUM IS A TEST CASE FOR SUSTAINABLE FOREST MANAGEMENT, SAYS DAVID BLAIR OF THE AUSTRALIAN NATIONAL UNIVERSITY.

Leadbeater's possum is one of the best studied animals in Australia with its habitat requirements being well known. Yet despite this, both it and the mountain ash forest ecosystem where it lives have recently been listed as critically endangered.

David Lindenmayer, Lachie McBurnie and I recently completed a review of Leadbeater's possum management (download available here: fennerschool.anu.edu.au/news-events/leadbeaters-possum-review-august-2017). We found recent claims of the possum being in recovery (based on recent increase in sightings) as incorrect. Instead, the increase is most likely attributable to the huge survey effort by the community (mainly Wildlife of the Central Highlands/WOTCH) and Arthur Rylah Institute. Unfortunately, long term research shows the overall population trend continues to decline due to the ongoing loss of old trees across the forest landscape. Other species such as greater glider also continue to decline.

Our review highlights some limited positive changes in management, including the long overdue reform of buffering of known colonies. This change led to the increased survey effort, but we suggest buffers are likely to be too small to be effective in the long term.



Unfortunately, our review also reports many management decisions which are likely to be either ineffective, or worse, make it more difficult to protect Leadbeater's possum. For example, hollow-bearing trees continue to lack adequate protection; important definitions of 'mature' forest and 'old growth' have been changed; 'Zone 1A' habitat protection is less effective than it was 20 years ago; alternatives to clearfell harvesting are slow in being implemented; harvest levels remain too high; decision making reference groups now contain industry representatives but lack independent experts; and the review of Leadbeater's possum colony buffers spends more time assessing the impact on the timber industry than on whether the buffers actually work.

The mountain ash forests of the Central Highlands have never been in as poor health as they are currently. Despite extensive, high quality science by independent and government scientists indicating the need for expanded ecological reserves, this management option remains elusive. • PW

“ We found recent claims of the possum being in recovery (based on recent increase in sightings) as incorrect. ”

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Fighting for forest futures

AN UPDATE ON FOREST ISSUES ACROSS VICTORIA.



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Forest key issue in Northcote by-election

The Northcote by-election was a focus of a range of campaigns by environment groups. The campaign included corflute signs, letter boxing, candidate forums and polling. Polling commissioned by VNPA, Friends of the Earth, Australian Conservation Foundation, Goongerah Environment Centre and regional environment groups found that 81.5 per cent of Northcote voters supported the establishment of a new national park in the east. And 57 per cent of people polled said they would be more likely vote for a candidate who supported the creation of the new Great Forest National Park. It is great to have this issue back in front of political parties just 12 months out from next year's state election.

Support for park continues to grow

VNPA joined more than 30 environment, conservation, recreation, scientific and citizen science groups, together representing hundreds of thousands of Victorians, in calling on the Andrews Government to declare the proposed Great Forest National Park in this term of office. See the joint statement on our website: www.vnpa.org.au/joint-statement-great-forest-national-park/

New legal challenge to Forestry Agreements

On 15 November, Environmental Justice Australia, on behalf of Friends of Leadbeater's Possum, filed an application with the Federal Court against the state logging company VicForests. The federal court case will challenge whether logging in endangered species habitat can continue to have a special exemption from federal environment protection law.

The case asks the Court to prohibit logging in 34 areas earmarked for logging where Leadbeater's possum and greater gliders live, unless federal environment laws are complied with, and to order the protection of areas to mitigate the impact from unlawful logging already completed at 32 sites.

Logging in public native forests is controversially exempt from most federal environment laws, provided it is carried out in accordance with a Regional Forest Agreement (RFA) – federal-state arrangements introduced in the 1990s. The RFA requires a performance review every five years.

The case alleges that as five-year reviews were not completed, logging is not occurring in accordance with the RFA and must comply with the *Environmental Protection and Biodiversity Conservation (EPBC) Act*,

which requires federal approval for actions that significantly impact threatened species. For more read: www.envirojustice.org.au/media/leadbeaters-possum-case-to-challenge-logging-exemption

Legal action and protest prevent logging

Victoria's Supreme Court has ordered an injunction to prevent VicForests from cutting down a spectacular area of old-growth forest in eastern Victoria that has never before been logged.

Environmental Justice Australia, acting on behalf of the community group the Fauna and Flora Research Collective, requested the interlocutory injunction to prevent the logging operation from beginning in the Kuark Forest.

The area had been subject to sustained protest by the Goongerah Environment Centre, who established a blockade of Kuark after controversy erupted in the last week of October when VicForests constructed a road into the forest to commence logging. Goongerah Environment Centre called on Environment Minister Lily D'Ambrosio to step in and protect the old-growth forest, with the minister later ordering a survey of the coupe.

The Environment Department's position in Court was that it has no obligations to protect old growth forest.

VicForests Annual Report 2016-2017 reports loss

VicForests reported an overall \$3.2 million loss, but claim a before tax profit of \$1.5 million due to a \$4.8 million payment from the Andrews Government to turn a profit this year for its work. In an Orwellian twist, the state-owned logging company has been paid to build 72 artificial tree hollows, in an experiment to see if Leadbeater's possums will nest in them, when its main business is logging their habitat.

The annual report also reveals that the so called 'community forestry program', which is mostly in the depleted and fragmented western forests, generated a total annual revenue in 2016-17 of a measly \$773,000. It begs the question of what the point of this program is, when we spend millions annually planting trees to improve habitat in the most cleared landscapes, in the most cleared state. (www.vicforests.com.au/static/uploads/files/vicforests-2016-17-annual-report-wfsjtsyiepto.pdf)

Does VicForests owe Victoria taxpayers \$133 million?

Friends of Leadbeater's Possum have been keeping a running tally on the performance of VicForests, and now estimate that they owe Victorian taxpayers \$133 million.

In 2010 the Victorian Department of Treasury and Finance (DTF) engaged URS Australia Pty Ltd to undertake a review of VicForests' operations in its first five years. Having analysed the company's performance, URS suggested that the company should be able to produce 15-20 per cent 'return on equity'.

This return on equity would be realised primarily through payment to Treasury of an annual dividend to recompense the state for the privilege of being allowed to log publicly-owned forests. In most years since the corporation began operations in 2004 it has been assessed at '\$Nil'. Dividends have now been paid in only five years out of thirteen.

Using the formula based on return on equity suggested in the URS review (15 per cent) the shortfall between the URS expectation and VicForests'

performance after 13 years of operation is now more than \$133 million.

To bring home the point, Friends of Leadbeater's Possum have sent an invoice to the Victorian Government on behalf of the Victorian community.

VicForests Parliamentary Inquiry

On 31 October, a Victorian parliamentary committee tabled a report which recommended the state government start planning for the forestry industry's transition to plantation timber. The Economics and Infrastructure Committee has investigated VicForests' operations since May, and has made seven recommendations to the Victorian Government.

It recommended the introduction of more robust oversight of the logging agency to ensure it complies with its legal and environmental obligations. The committee requested VicForests improve its management of timber contracts to deal with changing timber supply levels. It also wanted to see an industry transition plan, focusing on the use of plantation timber. (www.parliament.vic.gov.au/eic/article/3737) • PW

FORESTS FOREVER

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ADVANCE NOTICE

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Spend Easter in the heart of East Gippsland.

The **Easter Ecology camp** is a great opportunity to experience and learn about the wonderland of old-growth forests, and support threatened old growth and rare wildlife.

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For more information and bookings go to www.vnpa.org.au/forests-forever



What's the plan?

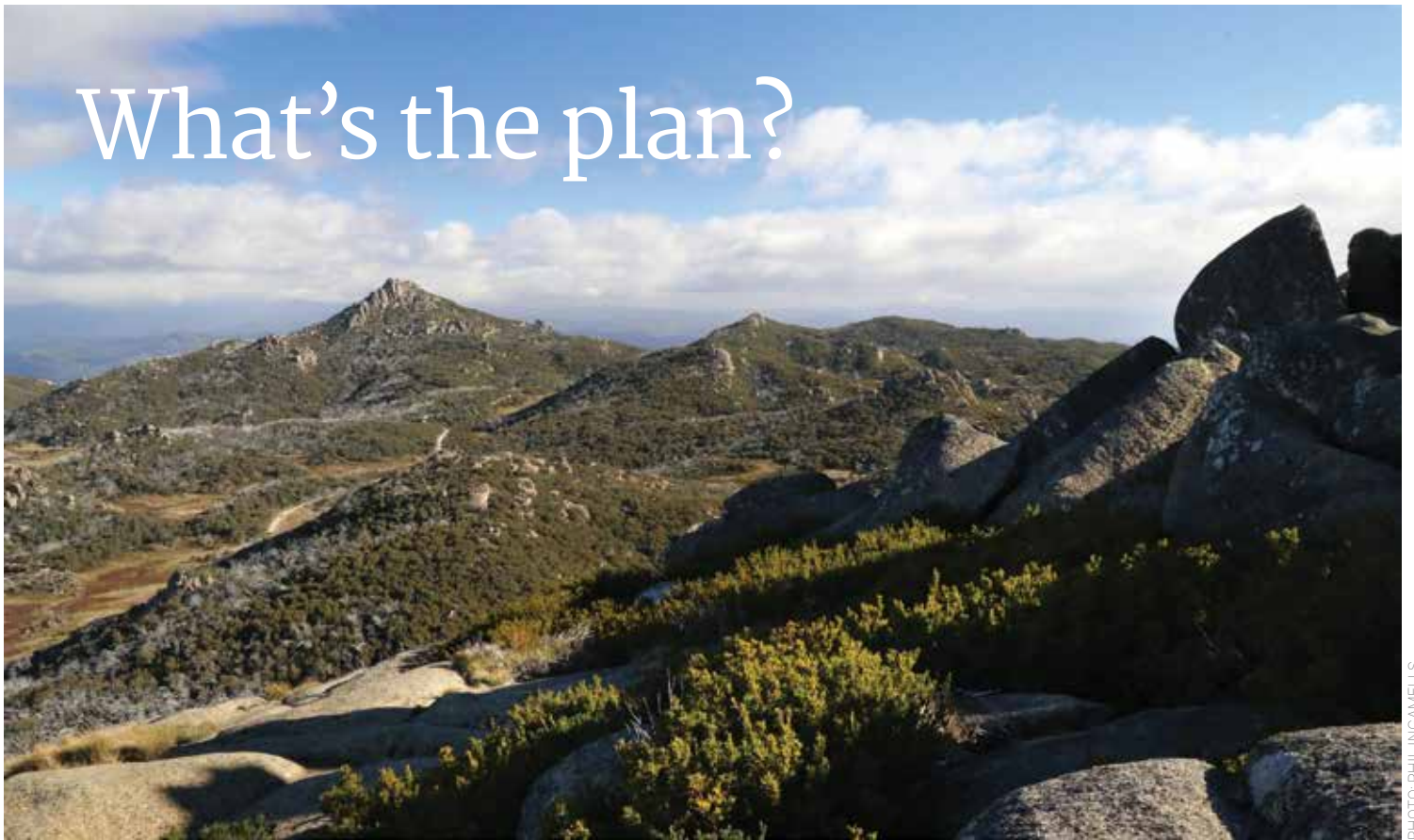


PHOTO: PHIL INGAMELLS

NATIONAL PARK MANAGEMENT PLANS ARE NOBLE IN AMBITION, BUT THEY ARE SHORT ON COMMITMENT AND LACK A TRUE LANDSCAPE CONTEXT, WRITES **PHIL INGAMELLS**.

With the Victorian Government's new *Biodiversity 2037* strategy in the starting blocks, it might be a good time to fix some national park management planning dilemmas.

While the strategy's four-year implementation plan is being developed, Parks Victoria might be in a position to put park management plans into a more usefully comprehensive planning framework. There's been a lot of talk about 'cross-tenure' or 'landscape-scale' planning over the last few years, a process that recognises that pest species, for example, don't recognise park boundaries. But national park, state forest and any other public land plans (let alone agendas for private land) have no clear, overarching biodiversity management context in which to sit.

This is an odd situation to be in. Although fire management has been planned across all public land for some time, pest plant and animal treatment plans have been less frequently inclusive. And while tourism has a rough statewide context, things like new mountain bike trail ideas lack cross-tenure context or, more frequently, simply lack plans at all.

Giving everyone a go

One significant problem with the current highly-consultative national park planning process is that a park plan is generally the only process inviting public participation in a region. So tourism developers, sporting shooters, trail bike or mountain bike enthusiasts, or anyone else wanting access to public land, is more or less invited to put pressure on Parks Victoria for access to the park or parks in question.

If Parks Victoria's plans were truly landscape in scale (rather than simply planning for several parks in a broader landscape), decisions could be made to allocate activities incompatible with the conservation priorities of parks to suitable public or private land nearby.

Or, even better, if we had overarching statewide or regional land management plans, park plans could fit into that framework, allowing their important minimal impact recreation priorities to proceed unchallenged. It's fair enough that people should have access to public land for many activities, but it's not very sensible if the only land for an activity is the land most valuable for the protection of nature.

It might also be time to be clear about what a park plan should actually contain.

A plan should be a plan

Some years ago a fisheries management plan was challenged in court because it lacked clear prescriptions. The judgement was simple and clear: a plan has to say what you actually 'plan' to do.

I was reminded of that judgement recently, when the High Court ruled on the remarkable case of some of our politicians' countries of origin. The court's unanimous judgement relied on a 'plain language' interpretation of the Constitution.

Victoria's *National Parks Act (1975)* states the obligations of a park's managers ("preserve and protect indigenous flora and fauna", "exterminate or control exotic fauna" etc.), and then adds:

"... prepare a plan of management in respect of each national and state park".

That wording is plain and unambiguous, and it's there for good



Far left: The Horn, Mount Buffalo National Park. Our parks deserve the very best management our society can offer.

Left: Many listed threatened species and plant communities are not identified, let alone given clear management attention, in park management plans. Pictured is the *Caltha introloba* Herbland Community (now *Psychrophila introloba* or alpine marsh marigold), an alpine community easily harmed by horses and deer.

PHOTO: COLIN TOTTERDELL

reason. Victorians have a right to know how our natural heritage will be looked after, and Parks Victoria can't be expected to manage that heritage if it doesn't have a clear, well-informed strategy to work to.

But that's not always what we get.

The recently released River Red Gum Parks draft management plan, for example, contains some good initiatives. But there are at least 60 instances where the 'plan' is to 'investigate options', 'review current management', or several other vague statements of ambition. Those decision-making processes should have already taken place during the development of the draft.

Management actions have to be adaptable, but you can't adapt (or monitor the implementation of) management prescriptions if you don't have them in the first place.

A confusion of layers

In recent years, Parks Victoria has claimed that, while the park management plans are designed as 15-year overarching objectives, the detail will appear in three-yearly 'corporate plans' setting out what 'will be done', and annual 'business plans' detailing works programs. That trilogy of planning layers (the claim is still on their website) might answer obligations under the Act, but we are yet to see either a corporate or business plan.

In a new twist, Parks Victoria is now producing 'conservation action plans' for some high profile national parks such as Wilsons Promontory, which follow another path: 'Parks Victoria's cyclical ten-step conservation action planning process'. A conservation action plan for the Prom is welcome, but the overall planning strategy remains confusing.

A clear role for expertise

One of the inevitable effects of a steady reduction in park funding over the last decade or so has been the loss of experienced park managers. That situation has improved somewhat under the current state government, but building workable levels of expertise will take more time and money.

When the Alpine National Park was proclaimed in December 1989, five experienced staff, all with a good knowledge of the park, could be spared from their duties to draft the management plan. A comprehensive four volume plan emerged by September 1992, firmly establishing a management regime designed to put the much-abused alpine landscape on the path to recovery.

In 2008, when a revised alpine plan was initiated, the availability of expertise was greatly reduced. Even though four more national parks, the Avon Wilderness and several historic areas had been added to the Alpine National Park's planning area, not one

experienced park manager could be spared to take the job on. The process inevitably struggled until a much-depleted plan appeared eight years later, towards the end of 2016.

Traditional Owners and park plans

In recent years a series of native title determinations have been made, and others will appear in the near future. They require national parks within the areas determined under Victoria's *Traditional Owner Settlement Act*, or a federal determination, to be jointly managed between the Traditional Owners and the Victorian Government. The Act establishes various rights of access to Country, and other cultural rights, but the overall objectives of the *National Parks Act* remain, including the obligation for a plan.

In practice, the Traditional Owner organisations develop a draft in consultation with the government, which then goes to the public for consultation. This could well be the breath of fresh air our parks need.

Gippsland's draft *Gunaikurnai and Victorian Government Joint Management Plan* (due for public comment by 15 December) is the most recent. It demonstrates, once more, the considerable contribution Indigenous voices can bring to park management.

Hopefully, future plans will also give park managers the clarity and clear direction required to ensure our natural heritage survives and thrives for the benefit of future generations. • PW

Nature's medicine

**DR DIMITY WILLIAMS EXPLAINS WHY A DOCTOR
WOULD CARE FOR THE ENVIRONMENT AND THE
HEALTH BENEFITS OF CONNECTING WITH NATURE.**

The Victorian Government released a strategy for protecting Victoria's biodiversity in April 2017. This article is the third in a series in *Park Watch* (see the June and September 2017 editions) that addresses the strategy and why it matters.

Protecting Victoria's Environment – Biodiversity 2037 is the first formal statewide long-term biodiversity plan in two decades, and it contains a range of priorities and initiatives. Chapter Four, 'A healthy environment for healthy Victorians' explores why spending time connecting with nature is good for our health as individuals and as a society.

The Victorian Government's *Victorian Memorandum for Health and Nature* is also a significant step in recognising that looking after nature also means looking after the health of people and their communities.

Why would a doctor care about nature?

This is the question I have been asked when explaining the work I do for Doctors for the Environment Australia (DEA), and it's also what I'm often asked when present at a gathering of environmental organisations. For many people, the link between the natural world and human health isn't initially clear. So, I was delighted to be asked to write for this publication about the importance of nature for health, and the recent moves by the Victorian Government to start building connections between the health and environment departments.

DEA's vision 'healthy planet, healthy people' encapsulates our understanding that without a healthy natural world we cannot have optimal human health. Natural systems stabilise our climate, clean our water and air, provide healthy soils in which we grow our food, and provide a resource from which more than half of all medicines have come. Biodiversity, the extraordinary variety of different plants and animals that

are connected to one another and to us by an intricate web of life, is especially important for our health. We know that greater genetic variety is protective in human health, and this is true for all living things. The loss of variety through monoculture farming and forestry is detrimental to the strength of the ecosystem in which we exist.

Most health problems facing our communities right now are lifestyle related, and one of the best discoveries I've made is that simply spending time out in nature will help prevent and treat almost all of them. Getting outside into nature encourages physical activity, which protects our heart and also reduces the chances of us being overweight. It allows for healthy vitamin D levels to develop, elevates mood, reduces stress, improves focus and may even improve immune function. It is a simple, inexpensive way of managing many complex health problems like diabetes, depression and anxiety.

Time outside in nature is especially important for today's children who are spending too much time inside, sitting down, usually looking at a screen.



PHOTO MARY FERLIN

Studies have shown that for children effected by conditions like ADHD (attention deficit hyperactivity disorder) a walk through a park compared to a walk through a shopping centre is associated with a reduction in symptoms. Simply increasing the density of plants in a school ground improves the ability of students to focus on return to class after a break. Nature Play Week is a celebration of the many initiatives occurring throughout Victoria to help more children get outside and is an excellent resource for families.

Even having a view of nature out of your hospital window has been shown to hasten recovery, reduce the need for pain relief and lead to earlier discharge following surgery. Our Royal Children's Hospital was built so that almost all patients have a view of surrounding Royal Park for this very reason. At the Royal Talbot rehabilitation hospital, therapeutic horticulture provides an important tool for aiding recovery, and patient gardens improve the wellbeing of patients, staff and visitors.

In overseas studies, time spent in forests has been shown to reduce blood

pressure, improve immune function and elevate mood. In Japan, forests are accredited to provide a place for patients to go, as prescribed by their physician, to address stress related illness.

It is encouraging to see our Victorian Government's recent *Memorandum for Health and Nature* and *Biodiversity 2037* plan clearly articulating the importance of nature for health.

This represents an enormous opportunity to advocate for the protection of natural places for health reasons. I hope to see a day soon when the Great Forest National Park is a place used for its health benefits – a place I can prescribe a visit to for my patients! • PW



Dr Dimity Williams has been working in general practice for over 20 years and is the Biodiversity Convenor for Doctors for the Environment Australia (www.dea.org.au). She is a co-founder of the Kids in Nature Network and Nature Play Week (www.natureplayweek.org.au).

Doctors for the Environment Australia (DEA) is the only organisation of medical professionals in Australia solely focused on promoting good health through care of the environment. They bring together an extraordinary level of leadership and expertise drawn from every branch of medicine. They use compelling scientific evidence to demonstrate the important health benefits of clean air and water, biodiverse natural places, stable climates and sustainable health care systems.



PHOTO: MARK DARRAGH

Saving the wilder bits

WE ARE TAMING THE EXPERIENCES NATURE OFFERS, LAMENTS **PHIL INGAMELLS**.

I once found myself on a track in Mount Buffalo National Park, looking out over a vast sea of weather-shaped snow gums broken here and there by huge, tumbled granite tors. The sun was setting behind clouds, it was getting darker and colder, and it was really time to start heading back. But a nankeen kestrel hovering high over that landscape held our attention.

Then, suddenly, a brief laser-like beam of sunlight broke through the clouds and lit up the hovering kestrel. That grand landscape, seemingly ruled by a bird bathed in gold, still burns in my memory.

I've been thinking of it often lately, as a group of developers are having yet another go at increasing tourism to Mount Buffalo. Their first (be brave and think big!) attempt outlined a catastrophe of hotels, bars and all manner of other 'attractions' across the length and breadth of the park, all in the guise of resurrecting the park's Chalet.

Back in the 1970s, there was a strong movement to save our remaining areas of wilderness, for a number of reasons.

- One, certainly, was to protect the unforgettable experiences nature offers.
- Another was to protect the processes by which species, and whole ecosystems, evolve in the wild. We now have an abundance of opportunities to study how human-altered systems affect species adaptations, but we are fast losing opportunities to study the complex interactions of tens of thousands of species in long-standing 'natural' areas – places where human impact remains small.
- And another was simply to allow ourselves the chance to experience the wild without the comfort, physically and mentally, that civilisation offers. It's a challenge as old as the hills, but we're losing it.

Left: Betka River on the coast of Croajingolong National Park. Protecting the park's 'wild' coastline might be the next conservation battleground.

Below: Once access is entrenched, it is hard to wind back. It has taken decades to ban climbing on Uluru, despite safety issues and clear traditional owner objections. Visitors still have the fine option to walk around the rock.

The idea of 'wilderness' quickly received push back from Australia's Indigenous community. The word implied that the land was unoccupied before the first fleet turned up uninvited, and that the land was unaffected by Aboriginal people who had clearly, and proudly, managed their country.

That was a very fair call, and an important point to keep making.

But it may have inadvertently silenced some of nature's strongest advocates for a time and left the gate open for the exploiters.

Since then, our remaining relatively intact natural areas have been facing increasing invasions.

Some of it comes from tourism industry bodies, perhaps jealous of the crowd-drawing capacity of New Zealand trails or the luxury hotel at Lake Louise in Canada's Banff National Park.

About a decade ago, having lost a battle to build a grand hotel at Wilsons Promontory, Victoria's tourism industry took on an 'eco' approach and announced three 'icon' accommodated walks, each offering the chance to experience nature in comfort.

The first, the Grampians Peaks Trail, was initially to have serviced cabins along its length, but public opposition and a lack of interest from investors changed that to a series of platform campsites.

The second, the Falls to Hotham Track, is still in the development stage by Parks Victoria, but seems to have moved from a series of privately-funded huts to a publicly-funded equivalent, though still with strong public opposition.

Next in line is a walk along the length of the Croajingolong 'wilderness' coast (that term has resurfaced for this one).

Both the Falls to Hotham and the Croajingolong trails are along existing walking tracks that currently have few facilities, but both plan to add a series of comfortable huts that will be regularly serviced by helicopters with fresh linen, gourmet food and, in the case of at least one group of huts on the remote Diamantina Spur, even fresh water.

That brings into focus a more insidious invasion into our few surviving wilder areas. Helicopters, once rare in the state, are now extremely common and they are being joined by a plethora of drones. While it remains illegal to land either of these within a national park, the drone

issue is hard to control. Helicopter tours over the Twelve apostles have now been joined by tours of the Grampians and the Prom.

While international research shows that helicopters and drones are seen as aerial predators by many birds and animals, altering even mating behavior, there are few serious moves to step in before air traffic gets way beyond control.

And it's not just native animals wary of that sort of intrusion. In places like Central Australia's King's Canyon, helicopter tours constantly intrude on the quiet magic of that ancient gorge.



PHOTO: PHIL INGAVELLS

We are also facing the slow but relentless increase in accessibility of all of these areas. Roads are improved and sometimes sealed (such as the Bogong High Plains Road); ownership of four-wheel drive vehicles has skyrocketed; and other adventure vehicles like trail bikes, mountain bikes and fat bikes are now common in parks, either legally or illegally, and turn up almost anywhere.

Once access is granted, it is very hard to wind back. It has taken decades to end the entirely unnecessary practice of climbing Uluru, for example.

And once infrastructure is in place, it almost inevitably increases. Until around 1940 there was no road access to the Prom's Tidal River area, but a commando training camp was set up there during the Second World War. Since then the army's built accommodation has grown and, were it not for fortunate limits clearly set by the park's management plan, Tidal River could have become just another coastal town.

Because Victoria is the nation's most cleared state, our highly fragmented areas are almost always close to towns, rural bed and breakfasts and a host of wineries. We do not need to bring comfort into our remaining parks and reserves.

We should be vigilantly protecting the integrity of areas that support nature at its best. We should be encouraging new visitors to our parks: those who have never experienced even a short time immersed in the wild.

And we should be encouraging a new understanding of Aboriginal occupation of these areas. Relocating a number of campsites and carparks that sit on middens might be a good place to start. • PW

Bringing back coastal nature



PHOTO: CHRIS SMYTH

IT'S TIME TO EASE THE SQUEEZE ON VICTORIA'S COASTAL NATURE BY ESTABLISHING A COASTAL WILDWAY PROGRAM, SAYS **CHRIS SMYTH**.

Coastal land for the public

The Victorian coastline dodged a bullet when crown land was being carved up across the continent in the 19th century.

In 1873, all 'unappropriated' crown land along Port Phillip Bay's shoreline was permanently reserved, followed in 1881 by all 'unalienated' lands within a chain and a half of 'inlets, loughs and straits'.

Today, 96 per cent of land abutting the Victorian high-water mark remains as crown or public land (other states have less). Of this, about two-thirds is in national, state and coastal parks, with most of the rest in coastal reserves.

Some of the national parks along the coast extend well inland from the shoreline, for example Wilsons Promontory and Croajingolong. But others, like Port Campbell and Mornington Peninsula, are narrow and fragile strips, as are the many coastal reserves.

The four per cent (roughly 80 kilometres) of the coast with freehold land abutting the high-water mark is mostly found between Portland and Warrnambool, the Bellarine Peninsula between Clifton Springs and Point Henry, and along the north-eastern shore of Western Port.

Easing the squeeze on coastal nature

Rising sea levels and coastal development are squeezing the very narrow strips of coastal nature on public land, accentuated by the edge effects from adjoining land uses. Coastal population growth and its associated urban, agricultural, industrial, port and tourist developments, and more recently climate change, are the main drivers of habitat loss, fragmentation and degradation. Uncontrolled visitor access and invasive species are other factors.

Of the ten Victorian bioregions (areas of broad and consistent landscape features) with coastal boundaries,

there are four where this squeeze is most pronounced. They are the Warrnambool Plain (between Portland and Princetown), the Otway Plain (which strikes the coast between Aireys Inlet and Altona), the Victorian Volcanic Plain (outcropping along the western shoreline of Port Phillip Bay) and the Gippsland Plain (from eastern Melbourne to the Gippsland Lakes).

Along the western shoreline of Port Phillip Bay, 50 per cent of coastal saltmarsh has gone. On the Warrnambool Plain, 80 per cent of swamp heath scrub and 40 per cent of coastal dune scrub have disappeared. The Otway Plain has lost three-quarters of its coastal alkaline scrub (moonah woodland), the Victorian Volcanic Plain 72 per cent of its coastal tussock grassland, and on the Gippsland Plain, 63 per cent of coastal banksia woodland and 80 per cent of coastal dune scrub are no longer there.

Many of the native animals and plants reliant on the coastal and hinterland habitats are rare or threatened, and their status has worsened. Prominent

are birds that use beaches and sand dunes or depend on healthy coastal waters for food, and the many small mammals and birds that rely on the habitats under pressure – heaths, grasslands, scrub and wetlands.

The Coastal Wildway Program

Victoria's coastal nature on both public and private land needs greater protection and restoration. VNPA's proposed Coastal Wildway Program would be a series of integrated and collaborative coastal restoration projects in partnerships between Traditional Owners, the local community, state and local government agencies, non-government organisations and landholders. The program would use a range of financial, regulatory and programmatic tools to:

- restore remnant coastal nature in a series of collaborative and priority restoration and linkage projects (in those bioregions where land clearance has reduced coastal nature to very narrow and fragmented strips or removed it completely)
- expand knowledge of coastal nature, and determine historical ecological baselines, by establishing a comprehensive and ongoing scientific monitoring and mapping of coastal habitats, ecological processes and threatened ecological communities, including change
- expand the coastal conservation estate to include abutting or nearby unreserved or reserved crown land, including state forest, that contains coastal nature, and purchased or covenanted private land abutting these areas or the high-water mark
- eradicate or control invasive species on coastal public and private land
- enhance coastal nature in coastal towns
- improve land-use planning to build the resilience of coastal nature to climate change
- improve and manage public access and amenity along the Victorian coast.

As Victoria prepares new marine and coastal laws and policy, now is the perfect time to establish the Coastal Wildway Program as an iconic symbol of new directions in coastal management and to ease the squeeze on coastal nature. • **PW**



PHOTOS MATTHEW KING

Thunder Point Reserve is the site for a collaborative project involving local Landcare and Coastcare groups and the Eastern Marr Aboriginal Corporation that will restore habitats, protect cultural sites and increase community awareness of coastal conservation issues. It can serve as a model for VNPA's proposed Coastal Wildway Program.

Restoring coastal nature at Thunder Point Reserve

Thunder Point Reserve is a very significant cultural landscape to the Guditjmarra people, with midden sites dating back more than 5,000 years, and is Warrnambool's largest intact vegetation corridor.

But Thunder Point is also a microcosm of the many issues facing the Victorian coast, including lapsed management, erosion, weed invasions and unauthorised access; the reserve's natural and cultural heritage have suffered. Unauthorised access and midden damage have become widespread.

To tackle these issues, the Warrnambool Coastcare Landcare Network, which engages hundreds of volunteers in activities that help improve Warrnambool's natural environment, has partnered with the Eastern Marr Aboriginal Corporation to conduct restoration and cultural awareness activities.

The Thunder Point Collaborative Restoration Project, which is also supported by the Warrnambool City Council, will help preserve important cultural heritage and environmental values, and lead to a greater appreciation of the natural environment and the Guditjmarra Cultural Landscape. It will also improve:

- cross-cultural relationships by bringing Indigenous and non-Indigenous people together in 'caring for country'. Volunteers will receive Cultural Awareness Training
- knowledge of the reserve's natural values; a fauna survey will be conducted by a trained ecologist to fill knowledge gaps in species which exist in this area
- biodiversity by planting native vegetation, including rare and threatened coastal species from seed sourced locally, and by the removal of weeds (South West TAFE VETiS students will work to eradicate bridal creeper using chemical and biological controls).
- community skills in and awareness of environmental issues and restoration; three working bees will engage volunteers in restoration activities and cultural awareness training.
- soil conservation by using bundles of coast wattle to reduce the effect of wind, encourage natural regeneration, and block off unauthorised access points.

The Thunder Point Project could serve as a model for future projects in the Coastal Wildway Program. Collaborative partnerships like this will hopefully encourage other local groups and government agencies to become involved in restoring and protecting the natural and cultural heritage of the Victorian coast. To meet the challenge though, we probably need hundreds of these projects, not just a few or a couple of dozen.

Balnarring Beach is a Ramsar site, a wetland of international importance. A long, sandy beach with few public access points, it provides nesting sites for red capped plovers in the soft sand just below the foredune.

The spit area between Merricks Creek and Western Port is managed by Balnarring Beach Foreshore Committee (BBFC) under the auspices of the Department of Environment, Land, Water and Planning (DELWP).

BBFC is made up of an unknown number of locals and a ranger/manager. BBFC collects fees for annual permits for horses to use the beach between 5am and 9am daily. Apparently there are 70 plus permits. Most recently BBFC is considering one for a private tourist operator to have potentially 15 clydesdales on the beach each day for dawn rides over summer.

Permit conditions require the riders to stay below the latest high tide line, and for part of the beach, off the soft sand altogether. At no time are they to be in the soft sand above the last high tide mark.

Compliance has been an ongoing issue, with riders ignoring permit conditions and horses churning up the soft-sand nesting areas on a daily basis. Part of the training also involves horses riding through the water.

Damage to Balnarring Beach is significant. Sand is churned to a

HEAVY HOOVES



**CHERYL MCDONALD
DESCRIBES HOW LOCALS
IN WESTERN PORT ARE
TRYING TO SAVE COASTAL
SHOREBIRDS AT
BALNARRING BEACH.**

depth of 25cm and pulverised daily. I have counted up to 23 horses over one morning session. There is a grassy reef bed that is likely to have been impacted by the horses in the water.

Locals have noted shorebird numbers and species evident are diminishing. The dune system has been damaged by previous non-compliance. Meiofauna and microfauna damage must be occurring, though there is little research in this area. Sea grasses, molluscs, crustaceans and echinoderms are trampled as horses train through the shallows.

Why is little being done about it?

The BBFC see this as a revenue stream. Their rangers do not monitor the beach regularly enough or cancel permits for non-compliance.

The horse trainers believe they have a traditional entitlement reminiscent of pro-whaling arguments: "We've been doing this for a hundred years."

A number of locals, including our shire councillor, are now campaigning to ban the horses from the beach.

Dealing with the BBFC is frustrating: our questions aren't answered and everything goes through the ranger/manager. We have also had no written response to an email alerting the Victorian Environment Minister Lily D'Ambrosio to these ongoing issues. • PW

Horse riding and sand churned up by hooves in the prohibited area at Balnarring Beach, home to red capped plovers.



PHOTOS: GEOFF HALL

Hoodies betrayed for a few pieces of silver

VNPA MARINE AND COASTAL
COORDINATOR **CHRIS
SMYTH** EXAMINES NEW
INFORMATION REGARDING
RACEHORSES AT BELFAST
COASTAL RESERVE.



The release of documents under a VNPA freedom of information (FOI) request has revealed that the Warrnambool Racing Club will pay the princely sum of \$25,350 annually, or \$70 per day, for a licence to allow commercial racehorse training in the Belfast Coastal Reserve near Port Fairy.

The licence issued by the Andrews Government allows the daily training of up to 50 racehorses in the reserve. After a little arithmetic, the daily licence fee is equivalent to \$1.50 per horse per day – far less than even a cup of coffee – for a multi-million dollar industry).

Hooded plovers living and breeding in the reserve, and the many surfers, swimmers, anglers, walkers, birdwatchers and other beachgoers who use it, have been betrayed – and for just a few pieces of silver.

Numerous documented breaches of interim 'licence' conditions did not stop the Andrews Government from issuing the horse-training licence. Nor did the impacts on the threatened hooded plovers from racehorses that churn up the sand, disturb the birds, crush eggs and damage protective fencing. Neither did the risks to the safety and enjoyment of beachgoers.

Legal advice provided to VNPA has indicated that under the *Coastal Management Act*, the Warrnambool Racing Club should have sought consent to use the reserve for racehorse training. Our FOI request therefore sought copies of the club's application and the Andrews Government's consent document. In responding to our FOI request, the Department of Environment Land, Water and Planning (DELWP) indicated there were no such documents but that the "*Coastal Management Act 1995* was considered in the licence process".

This lack of documentation under the *Coastal Management Act* is surprising – and disturbing. Just four years earlier, the Warrnambool Horse Trail Riders had applied for consent under the Act. Our FOI request sought a copy of the group's application to conduct a two-four hour trail ride with 20 horses twice per year at each of four locations in the Belfast Coastal Reserve.

The trail riders' successful application ran to 31 pages, included the group's environmental rules and research on environmental impacts, and acknowledged the Victorian

Coastal Strategy and Indigenous people's interests. Well-managed, respectful, small-scale, occasional recreational horse riding is not the issue in the Belfast Coastal Reserve. The big issue is the daily and intense workouts by racehorses that threaten hooded plovers, other coastal wildlife, cultural sites and beachgoer safety and enjoyment. Why did a tiny recreational riding group have to follow the law but not the multimillion-dollar racing industry?

The struggle to get horses out of the Belfast Coastal Reserve continues, while the issue of commercial horse training on beaches is also causing conflict at Balnarring Beach (see previous page), and has emerged at Coronet Bay.

VNPA has begun letterboxing marginal Melbourne electorates with the postcard sent to you with the last edition of *Park Watch*. Thank you if have already returned it. If you are yet to, please fill it in and drop it in the post.

Thank you very much to all of our supporters who make this work possible. Without you, we would be unable to do our work to save the hoodies. • PW

NSW red gum national parks under threat

PHOTO: ROSS McDONNELL

VNPA and our sister organisation the National Parks Association of NSW (NPA) spent decades creating a cross-border network of red gum national parks – the Barmah National Park on the Victorian side and the Murray Valley National Park on the NSW side. Now the National Party in NSW, who are part of the Coalition Government, are pushing to degazette the Murray Valley National Park. This would be a low point in Australian conservation history.

The Red Gum Branch of The Nationals has successfully made it their policy to convert the Murray Valley National Park back to the Murray Valley State Forest. Degazettement is the clear goal of The Nationals for this national park.

The red gum national parks were the culmination of a 30-year campaign for the NPA. They campaigned for their protection because they are a real jewel of the protected area estate. There's simply very little of this type of floodplain forest remaining.

In 2009, as the NSW Government was considering the reservation of the red gum forests, former Premier Bob Carr labelled logging the red gums as vandalism. Shortly after, Premier Nathan Rees instigated the Natural Resources Commission investigation that led to the creation of the red gum national parks.

Degazettement of such a special national park for a resumption of logging would cement the NSW Coalition's reputation as the most environmentally hostile government in memory. Is it really prepared to tear up all of the Commission's findings, and Australia's reputation, to vandalise the Murray Valley National Park? If recent years are any guide, the answer is yes.

VNPA and other national parks associations across the country, as well as many other groups, have written to the NSW Premier Gladys Berejiklian to highlight opposition to the degazettement.

Read more from the NPA senior ecologist Dr Oisín Sweeney: www.johnmenadue.com/oisin-sweeney-will-the-coalition-degazette-the-murray-valley-national-park-and-cement-its-anti-environment-reputation • PW

Compare three boat tours

Three competing boat tour operations will soon be visiting the Prom's seals and Skull Rock.

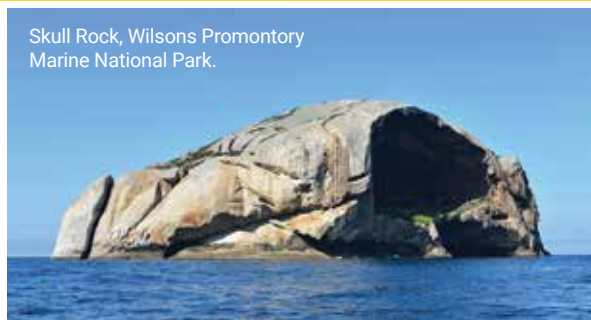
Pennicott Wilderness Journeys is the only operation to be given a government grant, and the only one actively promoted by Victorian ministers. The Prom tours offered by Wildlife Coast Cruises and Refuge Cove Cruises are longer than Pennicott's but cost considerably less, and neither are contentiously launched from the Prom's beach.

Tour 1. Wildlife Coast Cruises have been successfully operating seal tours from Phillip Island for years. They have recently operated occasional tours around the Prom, starting from the Port Welshpool wharf.

Tour 2. Refuge Cove Cruises. This local Port Welshpool company has just taken charge of a new catamaran, and will also operate Prom cruises from Port Welshpool, starting in the new year.

Tour 3. Pennicott Wilderness Journeys. Parks Victoria enthusiastically supported a \$650,000 grant to allow Pennicott to operate from Tidal River's beach, long before any assessment of the project had been made. Despite public complaints that the large amphibious boats will annoy beach users and exacerbate the Prom's already serious traffic issues, this operation should start late in 2018.

Skull Rock, Wilsons Promontory Marine National Park.



PHOTOS: REFUGE COVE CRUISES

Five years of NatureWatch in Wombat forest

VNPA'S CAUGHT ON CAMERA PROJECT HAS BEEN RUNNING SINCE 2012 IN WOMBAT STATE FOREST. NATUREWATCH COORDINATOR **CHRISTINE CONNELLY** REPORTS ON THE FIRST FIVE YEARS OF THE TEN-YEAR STUDY.

In 2012, a visionary group initiated NatureWatch's first Caught on Camera project, using motion-sensing cameras to monitor wildlife in the Wombat State Forest.

Working in partnership with Wombat Forestcare and the Arthur Rylah Institute (the research arm of the Department of Environment Land, Water and Planning) the group devised a project to investigate the long-term effects of fire on small mammals.

Every year, teams of volunteers have set up and retrieved eight cameras, rotating them around several sites with different fire histories, across the Wombat forest.

Since we started, we have trained 170 people in how to use the cameras at our annual community days, and an impressive 230 volunteers helped with our camera rotations.

Five years on, we've amassed a huge amount of data. Across 44 sites, we've collected 31,750 images of animals!

Our species list includes 14 native mammal species, including:

- echidna
- brush-tailed phascogale
- agile antechinus
- dusky antechinus
- common dunnart
- common brushtail possum
- mountain brushtail possum
- common ringtail possum
- koala
- common wombat
- black wallaby
- eastern grey kangaroo
- bush rat
- swamp rat



Smile! Eastern grey kangaroo joey, koala and joey, brush-tailed phascogale, common wombat, all Caught on Camera.

PHOTOS: NATUREWATCH

We've also captured images of eight exotic mammal species: black rat, house mouse, european rabbit, brown hare, feral goat, sambar deer, red fox, cat, as well as a domestic dog (with its human!)

Over the five years, we recorded 15 native and one exotic bird species:

- laughing kookaburra
- Australian magpie
- pied currawong
- grey currawong
- white-winged chough
- crimson rosella
- grey shrike-thrush
- white-browed scrubwren
- superb fairy-wren
- scarlet robin
- flame robin
- eastern yellow robin
- bassian thrush
- spotted quail-thrush
- southern boobook
- common blackbird

Capturing the threatened brush-tailed phascogale on camera was incredibly exciting and an unexpected outcome. Before the 'Tuan' (another name for this species) was recorded by Wombat Forestcare in 2012, there were no records of the species in the Wombat forest since the 1970s.

This year, ecologist Richard Loyn from Eco Insights has undertaken

an analysis of our data to see whether any trends are emerging.

Other studies demonstrate that longer-term effects of fire on flora and fauna are complex and generally more subtle than the dramatic changes that may be evident in the first three years.

Richard's analysis has shown that our results add weight to these findings, and our study will contribute to the understanding of the intricacies of the long-term effects of fire.

So far, we have emerging evidence that echidna, bush rat, grey shrike-thrush and superb fairy-wren are more likely to be found at sites with longer times since fire, suggesting a long process of recovery after an initial fire impact.

The first five years of Caught on Camera have been a major achievement, and there is strong enthusiasm and support in the community. Among field and office volunteers alike, we were never short of eager assistance.

Through the project, we've built and strengthened positive and long-lasting links between the community, scientists and the government.

We're incredibly grateful to everyone that has contributed to the project to date and we look forward to the next five years. • PW

Blooming forth



Alpine calendia

A POSITIVE STORY OF REGENERATION IN A SUBALPINE ENVIRONMENT FROM LAKE MOUNTAIN ENVIRONMENTAL OFFICER **SUE PARRY**.

Most of Lake Mountain was severely burnt in the 2009 wildfires. While in nearby towns the human tragedy was devastating, the plateau experienced a natural phenomenon and the regeneration has been a wonder to witness.

From a blackened landscape to regrowth of all descriptions, Lake Mountain is well on the way to recovering. The initial signs of life occurred within weeks of the fires as the ferns showed green shoots, but the real delight was the first spring as the snow melted and a carpet of tiny seedlings appeared. First the snow gums, then alpine ash, and finally the wattles all burst forth within a couple of months, in amongst a myriad of other seedlings and reshoots. Now, eight years later, the recovery has been spectacular, with over 90 flora species identified since the fires.

The unusual regenerating landscape at Lake Mountain is the result of the way the two eucalypts which dominate at this altitude regenerate.

The alpine ash needs a fire to regenerate, the parent tree being killed by the fire, but the seedling regrowth is prolific. Currently the battle for survival is on, with thousands of crowded seedlings now over five metres tall yet only 30 centimetres apart! Likewise, the snow gums have many new seedlings as well as the basal regrowth from the lignotubers. Both regenerating forests are left with thousands of silver trunks above the abundant regrowth, a haunting yet beautiful landscape.

The spring and summer wildflower display is well worth a visit for nature-lovers and bushwalkers. Starting in late September the wattles and wax flowers are usually the first to put on a display, followed closely by the Lake Mountain grevillea, endemic to the area and therefore quite special to see. As October arrives a progression of hovea, bush-peas, mints, trigger plants and billy buttons begins, a constantly changing spread of colour. There are also a variety of orchids to be found throughout the summer.

This year Lake Mountain Resort will be hosting a Wildflower Festival from December 9 to 17, as well as offering guided walks each week during the wildflower season. • **PW**

Then and now. Echo Flat in March 2009, and today.



PHOTO: SUE PARRY



Clockwise from top left: candle heath;
a stunning landscape of regeneration after fire;
alpine callistemon; snow gum seedlings;
alpine shaggy pea; slender snow-daisy.



PHOTOS SUE PARRY

lakemountain
ALPINE RESORT

Celebrate
the season's
wildflowers

with the

Wildflower Festival

Over 90 species have been identified
at Lake Mountain Alpine Resort,
so whenever you visit over the
Spring and Summer you will find
something in flower to admire.

Festival runs from
November to December

MONDAYS

December 4, 11 and 18

Join us for a 2-hour guided wildflower walk.
Meet in the Lake Mountain café at 10.00am
to start the morning with coffee and cake.

COST – \$15 per person.

WEEKENDS

December 9

10.30am – Presentation by Richard Austin
from the Australian Native Orchid Society,
on the orchids of the area and the impact
of Black Saturday. Followed by a walk
possibly in the Snowy Hill area, the
most likely area for orchids depending
on the coming season. Hamper lunch
provided on Lake Mountain Summit,
return to the Resort by 3.00pm.

December 10

Demonstration and display by
Botanical Textile Artist – Lynne Stone

11.00am – Leave for a walk up into the
Alpine Heathlands, with hamper lunch
delivered to the Camp. Return walk via a
different trail to the resort by 3.00pm.

December 16

Presentation by Judith Cooke from the
Ringwood Field Naturalists. Judith has been
photographing Lake Mountain wildflowers
on a regular basis since the 2009 fires.

11.00am – Leave for a walk up into the
Alpine Heathlands, with hamper lunch
delivered to the Camp. Return walk via a
different trail to the resort by 3.00pm.

December 17

Presentation by Steve Smith from
DEWLP about the fire recovery and
Leadbeater's Possum on Lake Mountain.

11.00am – Leave for a walk up into the
Alpine Heathlands, with hamper lunch
delivered to the Camp. Return walk via a
different trail to the resort by 3.00pm.

Meet in the Lake Mountain Café at 10.00am
to start the day with coffee and cake.

COST – \$55 per person.

MIDWEEK: Is available for walking groups,
or other organisations to book in their own private
guided walks! Please use the contact details below
to organise a guided trip for your own group.

Bookings are essential, please contact the Lake Mountain Alpine Resort
on 03 5957 7201 or sue@lakemountainresort.com.au

Pound Bend

PHOTO: NICK CARSON, WIKIMEDIA COMMONS

GEOFF DURHAM EXPLORES THE POPULAR RIVERSIDE RETREAT OF POUND BEND.

The Yarra River at
Pound Bend

If society wants to put people away, out of sight, out of mind, an island is a preferred locality. There are many examples – St Helena, Alcatraz, transportation to Australia, Christmas Island, Manus Island, Nauru, and in Victoria, French Island Prison. Second best is a peninsula, such as Port Arthur in Tasmania, or land isolated by a bend in a river, such as the 19th century Yarra Bend Lunatic Asylum. Which leads to my questioning if this is why Pound Bend at Warrandyte was chosen to be an Aboriginal Reserve in 1841.

Pound Bend is a five kilometre loop in the Yarra River with a narrow neck about 150 metres wide. It is said to be the largest single incised meander in the Yarra Valley, and one of the largest meanders on any Victorian river. The area within the loop is 96 hectares. To get to Pound Bend take Pound Road, or Everard Drive off Warrandyte Road to a confusing intersection with four roads converging at the neck. The road down to the picnic area has a

boom gate that is open between 7am and 8pm.

The Aboriginal reserve did include the land within the loop, but also land on the other side of the river both north and south of the bend, in all 770.5 hectares. It was "maintained for the benefit of Aborigines" until revoked in 1861. The boundaries are now marked by plaques at the end of the Boulevard in the north and off Everard Drive in the south. The last great corroboree of the Kulin Nation was held at Pound Bend in 1852. The Aboriginal Interpretive Signage Trail at the Pound Bend picnic area has seven very informative signs.

The displacement of the Wurundjeri commenced when James Anderson settled in the area in 1838. The first official discovery of gold in Victoria was at Andersons Creek in 1851, resulting in the Warrandyte gold field and township. In 1870 a 195-metre long by 5.5-metre wide tunnel was constructed by the Evelyn Tunnelling

and Mining Company through silurian sandstone/mudstone (as occurs right across Melbourne) at the neck at Pound Bend. The tunnel was not to access gold within the rock but to divert the river flow and facilitate the recovery of gold along the five kilometres of exposed river bed. The entrance to the tunnel is opposite Normans Reserve at the end of Bradleys Lane. In the 1880s a proposal to use the tunnel to generate electricity did not proceed.

The name 'Pound Bend' comes from an animal pound established in 1854. An isolated place like this could be considered a suitable location for a pound, but the pound was adjacent to Pound Bend, not within it.

After the First World War, land was acquired at Pound Bend for soldier settlement blocks. There were orchards on the slope below the present park depot. Many settlers struggled, and by 1931 blocks were being acquired and put up for sale by



Pound Bend tunnel

Top: Friends of Warrandyte State Park 'Folly'. Bottom: Friends of Warrandyte State Park nursery.

the Closer Settlement Board. The first youth hostel in Australia, established in a derelict settler's home in 1940, operated there until 1986, and was destroyed by fire in 1991. The site is now marked by a plaque. Pound Bend was seriously considered as the location for the Colin Mackenzie Sanctuary which was eventually established at Healesville in 1934.

In 1938 the Town Planning Association campaigned for a national park. In 1969 a local committee proposed a state park, but it was not until 1975 that the Pound Bend Crown Land Reserve was included in the newly created 135 hectare Warrandyte State Park. The privately-owned land remaining at Pound Bend is proposed open space subject to an acquisition overlay, and acquisition is proceeding. Two houses are about to be demolished and the blocks revegetated, and only two blocks remain in private ownership, apart from the five hectare Cresco Park Camp owned by the Scout Association.

Friends of Warrandyte State Park have operated continuously for 35 years. Their nursery at the park depot in Pound Bend is open for sales of indigenous plants on Thursdays from 9.30am to 12.30pm. Contact 1300 764 422.

The bitumen road from the neck winds down to car parks and a spacious grassed river-bank picnic area with an information shelter and toilets. A short walking path leads to a canoe ramp and the tunnel exit with steps up and over to the other side, and up to the road above. Swimming is popular in summer. Dogs are not permitted.

The timbered valley is rich in bird life. A riverside path leads upstream to open grassland, and then uphill to Pound Bend Road and the park depot. Silver wattles are spectacular in spring. There is evidence of wombats along the track and the possibility of seeing a platypus in the river. If you continue along the path

you will almost certainly see eastern grey kangaroos grazing on the open slopes and terraces. Parks Victoria's Park Note says to look for koalas in the tall manna gums. Koalas from French Island were released in 1985 and 1988, but are no longer believed to be present. Walk the two kilometres back to the neck along a walking path above the road or along the gravel Tank Track that runs along the main ridge through dry sclerophyll forest featuring the round-leaved red box. There is evidence of the last fire in 1991.

Warrandyte has grown "from a small isolated rural township to an outer suburban community", but Pound Bend remains a secluded riverside retreat.

For information in this article we are indebted to local historian Ken Crook and to Val Polly and her book *Wonderful Warrandyte – A Portrait* published by the Warrandyte Historical Society. • PW

The gang-gang's unique call makes it an ideal species in developing automated sound recognition methods for monitoring.

Seldom seen, but often heard

PHOTO: JJ HARRISON, WIKIMEDIA COMMONS

MUSEUMS VICTORIA IS USING THE UNIQUE CALLS OF VICTORIA'S PARROTS IN MONITORING AND CONSERVATION WORK AIMED AT PROTECTING THESE BIRDS. UNIVERSITY OF MELBOURNE MASTER'S STUDENT **KATE TREWIN** EXPLAINS HOW DIGITAL AUDIO TECHNOLOGY AND SOUND RECOGNITION ARE HELPING ECOLOGISTS.

There's no stranger feeling than walking in the bush and hearing the sound of a creaky door opening overhead. If you're quick, you might be lucky enough to see the culprit, but the gang-gang cockatoo is much easier to hear than to see.

The gang-gang's unique call may be a key to better understanding of its distribution. Although its IUCN status is 'Least Concern', a recent report by BirdLife Australia shows that gang-gang populations in south-eastern Australia have declined since 2006. Even worse, as many as ten out of 21 other parrot species in our region show the same declines.

These population trends suggest an increasing need for continuous, landscape-scale monitoring of parrot populations to try and arrest further declines before it's too late.

Although critically important, landscape-scale data can be difficult to collect. Most bird sighting data

comes from volunteers and researchers spending tremendous amounts of time and effort searching for and counting birds over a designated amount of time and a set distance.

But fortunately, new automated recording technology allows for the collection of long-term landscape-scale data with stationary recording units, capable of recording remotely on pre-set schedules of time.

In addition to reducing the effort needed to survey large areas over long periods, audio recordings of birds have other benefits. For instance, they allow you to go back to the moment of recording and listen to it many times. This enables researchers to be sure of the species, including those they may not have been targeting, and to quantify species richness over an area – a possible indicator of the health of that habitat.

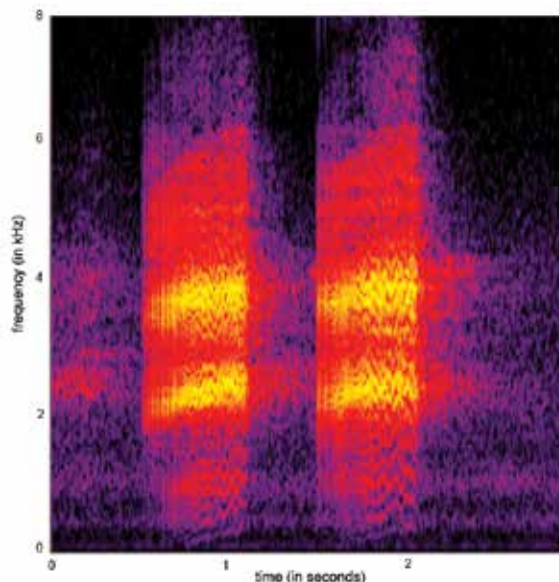
Field-collected audio recordings are also a permanent record of the presence of a species, capturing its unique sounds

and the soundscape in which it was recorded. Museums Victoria is establishing an archive of bird sounds and soundscapes to document Victoria's wildlife.

A drawback of long-duration landscape-scale recordings is the sheer volume of data collected. Listening to an entire recording of a dawn chorus can take three hours or more, and individual calls are easily missed.

However, advances in digital sound recognition now allow ecologists to identify birds in field recordings more efficiently with computer-based approaches. For example, the calls can be made visual as 'spectrograms'.

Each species shows a unique pattern based on its vocalisation. Using this information, researchers can create species-specific vocalisation 'templates' that model the target species' call or song from its known sounds.

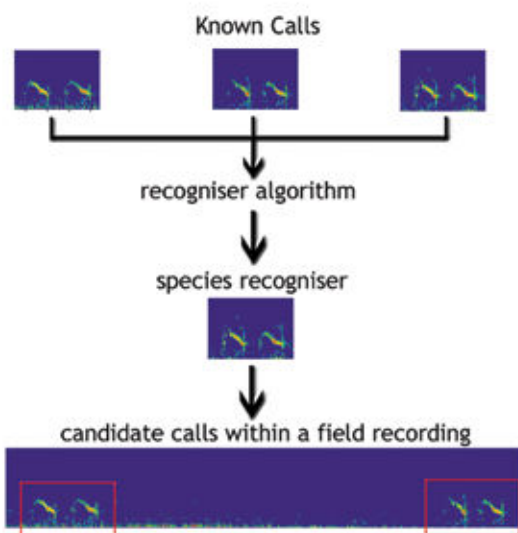


A gang-gang cockatoo's unique 'spectrogram' is a visual representation of its sound. Low to high frequencies represent sounds that are from low to high in pitch. Warmer colours show louder sounds at those frequencies.

Rainbow lorikeets are one of Australia's most colourful and vocal parrot species.



PHOTO: DAVID PAUL, COURTESY MUSEUMS VICTORIA



The yellow-tailed black-cockatoo's loud call is often heard when flocks fly over Melbourne suburbs.



PHOTO: DAVID PAUL, COURTESY MUSEUMS VICTORIA

The process of making species-specific vocalisation templates, by using a special computer algorithm that creates a model from known calls of the target species. The 'recogniser' is then used to screen field recordings to identify whether the target species is present in field recordings.

The sounds used to create the templates come from sound collections like the one at Museums Victoria. The templates can flag a target species' vocalisation in field recordings, saving the time needed to actually listen for them.

The output from the templates can also tell researchers if, when and for how long a species was at a site, based on the calling patterns. Field recordings can be added to sound collections, building a more robust database. The data can then be used to address ecological questions such as seasonal fluctuations in habitat use of birds, migratory arrival dates, and more.

Although researchers have been successful at identifying species' calls using these templates, much work is still needed to improve how well the template-matching algorithms can accurately identify species under a range of recording and field conditions.

In some cases, the template works well and correctly identifies the species. But at other times, the template incorrectly identifies another species as the target species, or fails to identify the target species altogether. Research at Museums Victoria and elsewhere is focusing on improving these algorithms and their templates, ultimately increasing the speed of scanning large-scale acoustic monitoring recordings and leading to faster detection of population declines.

In turn, near real-time monitoring of population trends will lead to quicker responses for on-ground management actions, if needed.

With the ability to rapidly monitor parrots and other species on such a grand scale, conservationists will be better positioned to help our iconic Australian birds well into the future – so that generations to come will be able to see and love them as much as we do. • PW

Since February 2016 VNPA has been working with Museums Victoria to carry out our NatureWatch program's Communities Listening for Nature project, using automated recordings to monitor birds at several locations across the state.

Participating community groups are collecting soundscape recordings in their local environment to carry out their own scientific monitoring projects. Their recordings will also become part of a public library of bird sounds, available at: collections.museumvictoria.com.au

For more information contact our NatureWatch Coordinator, Christine Connelly on 9341 6510 or christinec@vnpa.org.au

SMOOTH STINGRAY



The smooth stingray *Dasyatis brevicaudata* (pictured here) is one of the largest stingrays in the world, and easily the largest in Australia. It grows to 4.3 metres long and 2 metres wide – about the size of a car!

Smooth stingrays are commonly seen cruising nearshore reefs and piers looking for a feed of fish, crabs and molluscs. They have frequently been observed feeding on the aggregations of spider crabs that migrate into Port Phillip Bay over winter.

Like sharks, smooth stingrays can use electroreception (ability to perceive natural electrical stimuli) to detect prey. They also use mechanoreception (the ability to detect differences in pressure) to detect the feeding currents caused by bivalves in the sediment.

Rays are flattened fish closely related to sharks. Like sharks, they do not have a single bone in their body: their skeleton is cartilage (the bendy stuff in our noses and ears).

There are over 1,200 species of ray found in marine, freshwater and estuarine environments throughout the world, with over 20 found in Victoria's coastal waters.

Up until recently anglers were able to legally capture five rays in Victoria. They are now better protected with the limit reduced to one, and they are not permitted to be taken from any pier, wharf or breakwater. Additionally, large rays greater than 1.5 metres in width are protected. This change has come about due to the Project Banjo action group's #RaysAwareness campaign.

Little is known about the basic biology and ecology of rays. To learn more we have added them to the Great Victorian Fish Count in 2017 (get involved by visiting www.vnpa.org.au/programs/great-victorian-fish-count). • PW

“

There are over 1,200 species of ray found in marine, freshwater and estuarine environments throughout the world, with over 20 found in Victoria's coastal waters.

”



Our overnight Discovery Walk

VNPA COUNCILLOR **LARA BICKFORD** AND TWELVE-YEAR-OLD **THEODORA** SHARE THEIR FAMILY'S FIRST EXPERIENCE OF AN OVERNIGHT HIKE TOGETHER.



LARA

We have done a lot of camping with the four kids. For the past 11 years we have spent Easter camping at Little Desert. We have also camped at Mt Cole, Hattah Lakes, Lerderderg State Park and Murrindindi State Park.

When I speak to friends about our camping exploits, I am often greeted with: "how do you do it with the kids, what about all the equipment?" "Well", I say, "you can borrow anything you need from us or others, and anyone can do it – it's easy".

But I admit I found myself somewhat in that 'doubters camp' when deciding it was time that the kids were big enough to attempt an overnight hike. It was my sister's idea last year at Little Desert after we set off on what turned out to be a 14 kilometre sandy walk. While there was a fair amount of moaning from the children towards the end (and some from the adults), we felt a sense of accomplishment and found much to enjoy walking through the gentle varying landscape of the Mallee.

So it was time to plan a overnight hike during our annual Easter pilgrimage. The hiking group would comprise of three adults (me, Simon, my 70-year-old dad Rob, our three elder children and a niece – ages 10, 11, 12, 13).

Together we researched all information regarding the Little Desert Discovery Walk on the Parks Victoria website and a helpful bushwalkers blog. Designed as a three night/four day loop walk in the eastern part of the Little Desert National Park, walkers are able to embark on a single section; comprising in our case a 33 kilometre walk from Horseshoe Bend Camp to Kiata Campground via the Mallee Walkers Camp. Much consideration was given to what would make this not only feasible, but also enjoyable for us. I was worried that I wouldn't be able to carry a big backpack for the 20 kilometre stretch, that the younger kids would grizzle, and we would deter them forever on overnight hiking.

We also had to somehow get all we needed for this adventure. Simon and I had backpacks from our 1999 Middle East travels which would

suffice. We had mats and sleeping bags, but most were not designed for light carrying. So we drew on our friends who enjoy outdoor activities and could lend us light sleeping bags, a hiking tent and day packs a perfect size for the kids. That did leave us to buy some items – two hiking tents and a couple of hiking mats.

Each child carried their own sleeping bag and mat, and two litres water. Also their own snacks, which was a highlight for them – chocolate nuts, dried fruit and rationed fruit chews. It's amazing how motivating a couple of lollies can be to kids as they walk along!

And so to the walk. The weather forecast was for temperatures in the low 20s and a chilly clear night – perfect. Other family members dropped us at the beginning at Horseshoe Bend, and after group photos there was excitement as we set off. I was pleasantly surprised by how comfy the pack was once it was fitted snug – it was easy to stride along without feeling like a pack mule weighed down. And off we went, walking the sandy path that traversed



PHOTOS COURTESY LARA BICKFORD

through expanses of flowering yellow banksias. The park was as green and as healthy as I had ever seen it after the soaking rains of the previous year. Our amble was comfortable and the kids naturally walked about 100 metres in front together, chatting, singing here and there, and making up various adventure stories. They would stop every hour or a bit less to snack and sit, before marching onwards.

Reaching the Mallee Camp was a highlight, as we discovered the hut and fresh water in the tank, as well as a large golden orb weaving spider with an extensive web across the path. We lit a fire, and the kids loved preparing freeze dried meals of creamy carbonara and nasi goreng for dinner, and for us adults I prepared a barley veggie stew prepared on the trusty Trangia stove.

The stars were amazing and clear and provided more than enough entertainment. We were thrilled when a large shooting star with a red orange tail zoomed across the sky – the most amazing one I have ever seen.

The next morning, after a brekky of hot cross buns and the thrill of finding a yellow scorpion near the boys' tent, the kids dug for bones in the dried-out dam which they want to send to the museum for identification. We set off for the 20 kilometre walk back to Kiata. The terrain was interspersed with gentle rises which provided beautiful views across the Mallee to stop and admire. Again the kids walked happily. They split up sometimes with us, and other times all together or as pairs. As we started on the final five kilometres we were met by my sister and brother-in-law who walked out to meet us and provided a welcome diversion for our weary legs.

We arrived back to basecamp feeling happy, tired, relieved and a little sore – and with an overall consensus of achievement. It really was a special time spent together as a family that I would highly recommend.

THEODORA

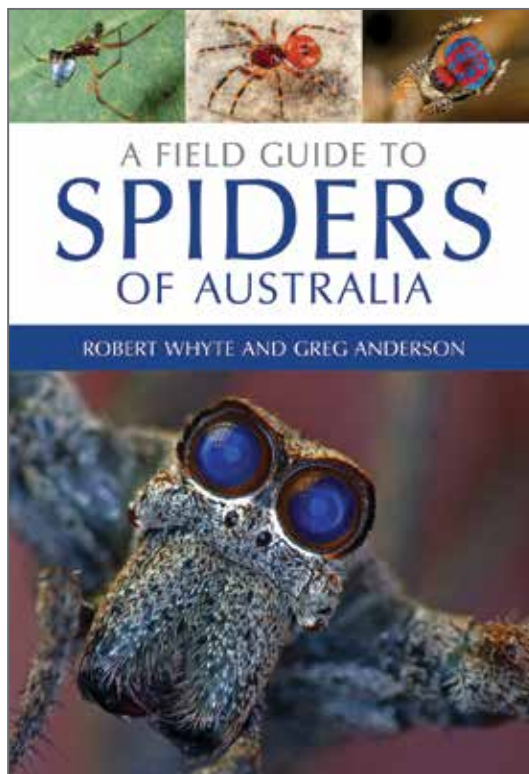
The overnight hike was really fun. It was really exciting sleeping out in the bush, and I had a great time hiking,

especially when you could see over the park. My favourite part was definitely at about 8:30 at night and we were about to go to bed (it felt way later!) We were sitting around the fire and you could see so many stars. It was amazing. There was no other people around for miles. I really liked most of the walk, but I didn't really enjoy the end of the first day when we thought we'd never reach the camp. I would definitely do it again, though I would like to walk the same distance both days, and not 13 kilometres and 20 kilometres like the one we did.

I thought the walk would be very easy when my mum first mentioned the idea, but when we were about to go, I realised it would be a lot harder than I initially thought. It didn't end up being too difficult, you just have to distract yourself when you're walking, otherwise it feels a lot longer. We didn't see as much wildlife as I had expected, but we did see lots of insects including spiders, annoying flies and a scorpion! I think that many children my age would enjoy going on an overnight hike as much as I did, and I encourage other families to go on one as well, even if it's only short. • PW

A Field Guide to Spiders of Australia

BY ROBERT WHYTE
AND GREG ANDERSON,
CSIRO PUBLISHING,
PAPERBACK AND EBOOK,
464 PAGES, RRP \$49.95



Spiders are one of the most frequently encountered invertebrates. They share our houses, gardens, and of course the bush that we visit at weekends. There is nowhere we frequent that spiders are not present, although they are often unseen. Most spiders are small, less than 10mm long, a few are dangerous, and all are fascinating.

Have you ever walked away from your campsite at night and shone your torch around to see a myriad of bright stars sprinkling the ground? This is particularly easy to do in drier country where wolf spiders hunt at night using speed and stealth to catch their prey. With a good light these spiders can be seen up to 50 metres away. Spider eyes can be extremely sensitive, sometimes thousands of times more sensitive than our own. Spiders usually have eight eyes, often with two large eyes dominating the cephalothorax (combined head and upper body). High quality photos in this book allow you to look into these deep liquid eyes and wonder what is going on behind them.

Early sections of the book give useful information about spider anatomy and ecology. Some very basic anatomical knowledge is essential if you are going to attempt identification of your new-found friend. Knowing where spiders are found and their preferred habitats helps with the ID, as does the knowledge about their web (not all spiders construct webs) and where they live.

This book is primarily an identification guide, although with only 4,000 of the estimated 15,000 to 20,000 species formally described, it is inevitable that you will soon come across an undescribed species. Most families of Australian spiders are covered with photographs of numerous examples from each family. Spider families are organised alphabetically within the two major groups of spiders, Araneomorphae with inward pointing fangs, and Mygalomorphae with parallel rear pointing fangs, followed by a small section on lesser-known families. There is a brief description at the start of each family. Colour bars on the pages let you turn quickly to a family, something that will become increasingly important as you learn to recognise different groups.

The photos are excellent and each is accompanied by a brief description which mentions where the spider was found and sometimes the distribution. However, there are no distribution maps – again, a reflection on the state of current knowledge. There is an eastern Queensland bias to the book. This is partly due to the diversity of the spider fauna in north-eastern Australia, but possibly also due to the location of the authors in southern Queensland and their access to staff and

material at Queensland Museum. Do some of these species extend more widely than the single location given in the caption? This probably reflects the aforementioned lack of knowledge about spider distribution, so cautiously consider these species when trying to identify your spider.

The largest family covered by the book is the jumping spiders. These cute spiders include the brightly coloured peacock spiders, now famous for the footage of their mating displays, as well as interesting adaptations such as the ant-mimics which resemble their ant prey. Many jumping spiders are diurnal (active during the day), and you have probably come across them around your house or garden. The book is worth getting for this section alone.

This book is the most comprehensive guide to Australian spiders available. It joins other CSIRO publications in the series which deal with butterflies, dragonflies and phasmids, and is of similar standard and quality. I thoroughly recommend this book for any naturalist with an interest in spiders. I will be making extensive use of it as I attempt to identify my own spider photos. And even if my spiders fall through the gaps, I should at least be closer to knowing who the miniature hunters are that I come across on a daily basis. • PW

Review by Euan Moore

WILD FAMILIES



What's that? Bird spotting at Organ Pipes National Park.



Right: These activity sheets are available on our website.

Bird detectives

Several families came together in September at Organ Pipes National Park to learn about birds and how to spot them. All together we spotted 22 different species of birds! This included the little eagle, white-browed scrubwren, superb fairy-wren and the Pacific black duck.

This Wild Families activity highlights included:

- Seeing adults and kids get the hang of binoculars and using them to get a clear view of birds

- The great bird drawings by adults and kids
- How much the kids already knew about good ways to look after birds

Bird watching is a great way to enjoy nature with the family and can be done just about anywhere – at the beach, in the backyard, on the way to school and in the bush. Check out our Wild Families 'Bird Detectives' activity sheet at www.vnpa.org.au/programs/wild-families for tips on taking the family on a feathery adventure! • PW



Learning about bird identification.

Nature activities for Wild Families!

BE A WILD SCIENTIST THESE HOLIDAYS!
HERE IS A SMALL SAMPLE OF ACTIVITIES
FOR WILD FAMILIES WITH CHILDREN OF
DIFFERENT AGES.

Being a scientist means you get time to observe things closely. It means taking time to think about questions like 'what is it?', 'why does it do that?' and 'how does it work?' Scientists can spend years thinking about and answering these types of questions. You and your family can take your time to try the suggested activities here. They require you to use your scientific skills of studying closely, questioning your observations and interpreting nature. Remember to look after the safety of your family on all outdoor activities.

Scientists record their observations in many ways including writing, drawing, photos and numbers. You could try any or all of these ways to record the observations you make while answering these questions. • PW

Find more of these fun wild science family activities at www.vnpa.org.au/programs/wild-families. Remember to join the Wild Families mailing list by emailing caitlin@vnpa.org.au

Little discoverers

Look under some leaves.
What do you see?

Find something rough and something
smooth.

Find something that smells good or bad.





Budding discoverers

Spy on a small critter.
What did it do?

Serious scientists

Find a living thing that has been here
for a long time. How old do you think
it might be? Why?

Listen to the sounds around you.
Which sounds will still be here when
the people have gone?

Find a branch, log or rock. How do you
think it got here? What can you see
(moss, lichen, fungi, insects, snails)?
Always keep your hands and feet
where you can see them.

Find a seed.

How many different species/types
of plants can you count in this area
(remember to include grasses and
have a look for tiny plants)?



PHOTO: ED DUNENS

Will you help strengthen our voice at this critical time?

Every four years a window of opportunity opens for us to highlight the critical issues facing Victoria's natural environment and our unique species.

The 2018 state election may not be on your radar yet – but it's on ours and we're already getting to work. And the plight of the Hooded Plover is just one of the critical issues we're fighting for!

Will you make a donation to strengthen our voice at this critical time?

With your backing, we'll give nature a louder voice at this critical time, so the voting public and political parties can't ignore the important issues that will affect generations for years to come.

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I'd like to make a tax-deductible gift of:

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Please post with payment to Victorian National Parks Association, Level 3, 60 Leicester St, Carlton VIC 3053, call us on **03 9341 6500** or visit **vnpa.org.au/support/strengthen-our-voice-at-this-critical-time**

* Donations will be automatically deducted from your credit card or direct debit arrangement on the 28th day of each month. You will receive a tax receipt at the end of each financial year, and you can alter your donations at any time. Minimum gift is \$15/month. All donations over \$2 are tax-deductible. ABN 34 217 717 593

Authorised by Matt Ruchel, Executive Director, Victorian National Parks Association.

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