

PARK WATCH



REMEMBERING BLACK SATURDAY
ACTION FOR BEACHES
WHAT HAPPENED TO VISITOR CENTRES?
FEDERAL ELECTION AND NATIONAL PARKS
PLANS FOR OUR BIG BLUE BACKYARD
FUTURE OF OUR FORESTS
SAVING MOUNT BUFFALO CHALET

MARCH 2019 NO 276



VICTORIAN
NATIONAL PARKS
ASSOCIATION
Be part of nature



Be part of nature

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OUR 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.

Everyone can help in the conservation of Victoria's wild and beautiful places. To find out how you can help, visit www.vnpa.org.au/support or call us on (03) 9341 6500.

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Grass-trees flowering in Kinglake National Park after the Black Saturday bushfires.
Photo: Mary Thompson, Copyright Parks Victoria

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From the President

Since the last *Park Watch*, the Victorian election has been decided. We congratulate the Labor Party on their re-election and look forward to working with them to achieve significant improvements in nature conservation and in the engagement of Victorians with nature.

But first we remember the horrific events of Black Saturday, 7 February 2009 on the following pages. Catastrophic fires swept large areas of Victoria. Over 170 people perished, including VNPA staff member and fire expert Jenny Barnett. Jenny and her husband John were life-long stalwarts for nature conservation and friends of my family. I also knew others who perished in the bushlands around central Victoria. It was pure good fortune for my extended family, as a well-placed helicopter stopped a blaze in Quarry Road, immediately windward of the Dandenong Ranges. DSE and CFA staff and volunteers successfully contained hundreds of fires across Victoria on that day.

Since 2009 the VNPA, especially our Parks Protection team led by Phil Ingamells, has put the case for improved management of fire and of nature to our government. Change has been slow. The major risks to people and property are related to the relentless development pressures by an expanding population. The role of power lines in fire ignition has been controversial. There have been important improvements in the planning controls, although vegetation is still regarded as the enemy in many cases. Protection of native vegetation across Victoria is erratic, as not all local governments have the staff and systems in place. While people love living near the bush, a far more educated and nuanced approach to nature conservation is needed.

Almost 200 years have passed since the fire risks became apparent to British settlers in Victoria, so it is essential that research finally informs regulations and practices.

In the December edition of *Park Watch* I wrote of the need for the state of Victoria to invest two–three times more funding into nature conservation, park planning and management. With the federal election due shortly, the time is ripe for improved national funding for nature conservation (see pages 16–17).

For example, it is bizarre that the federal government has signed international agreements to protect nature, but then provides only token support. The Ramsar-listed wetlands in Australia are a staggering example of inept and incompetent administration, every bit as shocking as the recent Banking Royal Commission. Wetlands must have a significant role for habitat of migrating birds before being listed. Wetlands are clearly important for other animals, fish, plants and the associated waterways. The shocking state of the environmental values of the Murray Darling River basin is another example of federal dereliction of duty on nature protection.

With this in mind, the National Parks Australia Council (NPAC), of which VNPA is a member, has formulated five position statements on nature conservation. There are plenty of reasons for federal funding for this purpose. *Park Watch* contains further details on these positions which are being put to federal politicians over the coming weeks (see pages 16–17).

Along with other environment groups and alliances, the VNPA has called for stronger laws and funding to protect nature. I encourage VNPA supporters to speak with their local federal

candidates to let them know your concerns about nature protection and the need for increased funding. Let them know that this funding is to employ people (i.e. “jobs”) to work on nature protection.

We know the estrangement of people from nature has adverse effects on mental health, among other consequences. About ten years ago, a number of studies in Victoria demonstrated the benefits of getting people out into nature. The Victorian Government should be ensuring that the health, education and environmental departments are all investing to this end. This is also the clear policy position as shown in the *Biodiversity 2037* plan. Yet where is the substantial long-term funding to ensure implementation of this plan? Even the People and Parks Foundation set up by Parks Victoria is struggling to employ staff in developing new programs. Unfortunately, their concept of ‘Healthy Parks Healthy People’ looks pretty sick at the moment, just like a substantial proportion of Victorian residents.

On a lighter note, over the summer my family was able to enjoy the magnificent coastal reserves, walking tracks and beaches near Inverloch and Anglesea. And while camping at Wilsons Promontory National Park I chatted with a recent Afghan refugee family enjoying the wonderful coastal scenery, and an Irish man singing the praises of the Prom, and I even joined a game of beach cricket with a Sri Lankan family. It was great to see so many recent migrants appreciating our natural heritage. • PW

Bruce McGregor, VNPA President

Environmentalists honoured

Congratulations to all the recipients of Australia Day medals for services to the environment, including two people we know of who are a part of the VNPA community:

- Robert Bender OAM, 'for service to conservation and the environment, and to the community'
- Dr Albert Barrie Pittock PSM OAM, 'for service to the Indigenous community'. • PW

Project Hindmarsh – save the date

The Project Hindmarsh 2019 planting weekend will be held on **6-7 July** and will be based out of Nhill. We have three planting sites: an open site and remnant yellow gum woodland near Glenlee, east of Nhill; a lovely buloke and box/gum woodland at Diapur, west of Nhill; and a small patch of farmland at Boyeo, north of Nhill.

We aim to plant 13,000 trees, shrubs, herbs and grasses, including three listed threatened plant species.

We are looking for volunteers to join us for another great planting weekend, supported by VNPA. More details to come. You can contact Jonathan Starks on **0429 006 936**, jstarks@hindmarshlandcare.org.au, or visit www.facebook.com/HindmarshLandcareNetworkInc • PW

2019 Supporter Survey

We rely on contributions from you, our wonderful supporters. Whether you donate your time, money or skills – every bit of progress we make for protecting nature in Victoria is all thanks to you!

We really value your support, which is why we sent out a supporter survey in February to find out what's important to you. We've had a wonderful response to the survey so far, and we're very grateful to those who took the time to fill it in.

If you haven't had a chance to fill in your survey, it's not too late – please post it to VNPA as soon as you can.

If you are waiting for a response with information about ways you can get involved or support our work, we'll be in contact soon – thank you for your patience!

If you have any queries, please contact Amelia Easdale, Supporter Development on **(03) 9341 6505** or amelia@vnpa.org.au • PW

Thank you



PHOTO: MARY FERLIN

A photograph of a forest with sunlight filtering through the trees, creating a bokeh effect. A large, dark circular overlay is centered on the page, containing the title and a short paragraph.

Black Saturday

ON THE FOLLOWING PAGES,
WE MARK THE TENTH ANNIVERSARY
OF THE TRAGEDY.



Ten years on

MUCH HAS BEEN LEARNT, AND THERE'S MORE LEARNING TO DO, SAYS **PHIL INGAMELLS**.

A few hundred metres up a seldom-walked track through Kinglake National Park, a stone seat stands as a small memorial to four people in the nearby Steels Creek community who fell victim to the terrible fire of Black Saturday, 7 February 2009, as well as to all others who lost their lives that day.

The four people commemorated were well known to the nature conservation community: VNPA staffer Jenny Barnett, her animal welfare advocate husband John, and their biologist neighbours Leigh and Charmian Ahern.

Ironically, Jenny was the VNPA's long-standing advocate for improved management of fire – management that might better protect both people

and the environment. Nature, it seems, can callously discard those who love her.

There were hundreds of fires across Victoria on Black Saturday, and most were contained by courageous staff and volunteer firefighters. But some roared far beyond control through 450,000 hectares of tinder dry grass and bushland, killing 173 people and destroying over 2,000 houses. The economic cost was more than \$4 billion.

It was Australia's greatest bushfire tragedy, and it left deeply scarred communities in its wake. No one wants to see that day repeated.

Before Black Saturday, Victoria had been considered one of the most effective fire managers in the globe,

but the terrible losses forced a rethink, and that thinking continues, as it should, today.

The state government soon set up the Victorian Bushfires Royal Commission with an open mandate to investigate all aspects of that day, and of fire management in the state generally. Through the 17 months of the commission's considerations, it received around 1,700 public submissions and advice from a series of experts on all aspects of fire behaviour and management. Each of the 155 public hearing days began with personal testimony from a victim, lest the commission lose sight of its overriding objective – protecting human life.



PHOTO: JENNY BARNETT



PHOTO: JENNY BARNETT



PHOTO: JENNY BARNETT

Top left: Spotted sun orchid. Some orchids respond well to occasional fire.

Top right: Jenny Barnett challenged the common perception that long-unburnt forests must have very high fuel levels. She noted that in many ecosystems fuel will increase quite rapidly after a fire, but then reduce over time. This dry forest in Kinglake National Park had been unburnt for 24 years when she took the photograph. We still don't objectively monitor the short and long-term impacts of fuel reduction programs.

Left: The relationship of fire to the tens of thousands of native insects in Victoria is not well understood, but maintenance of critical habitat features must be a sensible precautionary measure.

that would most likely have evolved to be more flammable, thus actually increasing the fire risk over time.

She also demonstrated that while fuel reduction burns can often help protection of lives and assets, in other instances they can be counterproductive, changing long-unburnt vegetation with a quite sparse understorey into areas thick with shrub growth. It is now well recognized that fuel reduction programs are generally only effective for three or four years, but little monitoring is done to assess the short or long-term effects of burns in different ecosystems.

Fire management is complex, and we need to listen to many voices. Aboriginal burning practices will be increasingly studied and experimentally applied in the years ahead. Our environment department has commissioned a great deal of research, following the commission's recommendations, but is yet to significantly apply that information to management. Many universities, and the Bushfire and Natural Hazards Cooperative Research Centre (CRC), have also been conducting research, but much of that fails to penetrate the environment department's administrative walls.

We have become skilled at handling fire in Victoria, and we could become very clever indeed, but we must continue to act on knowledge gained.

The memorial stone seat in Kinglake National Park was designed as a time capsule. Some of Jenny's fire submissions are among the memorabilia there. My guess is they will stand the test of time.

But the commission also had an eye for the protection of nature. The great conundrum, of course, is that a bushfire's fuel is also our natural heritage.

The Commission's 67 final recommendations have largely been implemented and have significantly changed fire management in Victoria, and elsewhere (see next page).

However the commissioners made it clear that many of their findings were provisional, and that our management effectiveness should grow in line with any new knowledge.

They called for ongoing monitoring and research into most aspects of fire management, and specifically

on the effectiveness of fuel reduction programs and the impact of planned and wild fire on the state's biodiversity.

In Jenny Barnett's submission to an earlier parliamentary inquiry into fire in Victoria, she noted that a series of loose and inaccurate references to scientific papers had been used to justify a large planned burn target.

She also made some observations that are yet to gain broad management acceptance, even though a number of recently published research papers back her up.

She called for research into the probability that frequent fire could encourage the return of plants that responded well to fire, plants

Continued overleaf

How things have changed

The Victorian Bushfires Royal Commission made 67 recommendations. Some have been fully implemented, others have been carefully revised, and a few have been largely ignored. The areas where the commission called for action are summarised here.

Improve community education, the effectiveness of warnings and strategies for safe evacuation.

Much has been done here, especially in relation to fire warnings. However there has been no big increase in people developing and maintaining fire plans, and the safest response to a fire, 'leave early', is not well observed. The commission made no recommendation for compulsory evacuation, which is a relatively effective safety strategy in Canada and the USA.

Establish a comprehensive approach to shelter options.

The commission's second Interim Report urgently called for an approved standard for personal bushfire shelters. An approved design standard was developed quickly, but little has been done to educate the public about the usefulness of well-designed private shelters/bunkers, or to facilitate their construction. The establishment of recognised 'neighbourhood safer places' has been slow.

Upgrade emergency management, including fire path prediction and the revision of lines of authority.

Many changes have happened here, and continue to happen, including improved access to fire mapping and fire behaviour predictions. The computer model Phoenix Rapidfire, the standard tool, is a sophisticated predictor of fire behaviour, but there remain questions about the skill levels of operators, and the accuracy of data input for fuel levels.

Upgrade the capacity to respond to fire ignitions, including aerial response.

The biggest change here is that aircraft are now notified as soon as a fire is reported, allowing them in some instances to get to an ignition point within 10-15 minutes, when control is most effective. Victoria had 49 aircraft in standard deployment this season and, in a quite radical move, pilots are now being trained to fight fires at night. Victoria's capacity for aerial control of bushfires is growing.

Power lines should go underground.

This recommendation was rejected by government, even though five of the 15 fires the commission examined (including the most deadly, the Kilmore East fire) were caused by power line failure. However modifications have been made to power lines, including the triggering of automatic circuit reclosers when a power line fails.

There should be a commitment to research and effective action on arsonists.

A range of actions has been taken on this major cause of fire, and research into the psychology of arson continues. A recent study showed that a large proportion of arsonists are unemployed youth on the urban fringe. The relationship between social isolation and arson has not yet been addressed by effective action. Arson remains a big problem.

Planning and building controls need strengthening.

Initially the response was strong, with land buy-backs, planning changes and improved building codes. But government baulked at a full buy back and developments continue to grow in high fire risk locations. And while there has been progress, there is still work to be done strengthening ember-proof building design and retrofitting existing buildings. Problems remain with vegetation clearance.

Improved fuel reduction burning effectiveness.

The commission's recommendation for an annual target of 5 per cent (390,000 hectares) of public land proved unachievable, and encouraged unnecessary large, and environmentally damaging, burns in the remote Mallee, with little added benefit for public safety. It has been changed to a more strategic 'risk-based' target. The recommendation to monitor the impacts of planned and wild fire on biodiversity has led to over \$10 million allocated to monitoring programs, but a recent report says the findings from those programs have not yet generated any significant change in fuel management.

Implementing the recommendations.

The Implementation Monitor for the commission's recommendations, Neil Comrie, pointed out that the 67 recommendations shouldn't be considered in isolation. Rather, all identified strategies to protect life (as a priority), infrastructure and the environment should be considered together. Despite its limitations, fuel reduction planning continues, to a large degree, in isolation from other very useful strategic options.

And climate change is still the elephant rampaging through the room. • PW

Forests after the fires

SERA BLAIR LOOKS AT THE IMPACTS ON AND RECOVERY OF VICTORIA'S MOUNTAIN ASH FORESTS.



Flame robins quickly returned to the burnt forest in large numbers.

PHOTO: DAVID BLAIR

On 7 February 2009, fire spread rapidly through 78,200 hectares of mountain ash forest in the Central Highlands of Victoria. The history of large fires in these forests (including major fires in 1851, 1926, 1939, 1983 and 2009), coupled with extensive industrial clearfell logging over many decades, has resulted in a dramatic decrease in old growth mountain ash forest in Victoria.

Historically, its estimated that old growth comprised 30-60 per cent of the ecosystem, but now there is only 1.16 per cent left. This history

of disturbance has been recognized by the IUCN Red List with their listing of the mountain ash ecosystem as critically endangered.

Forest values

Old growth areas of mountain ash forests have the greatest abundance of hollow-bearing trees which are a critical habitat resource for many species of possums, gliders and forest birds. They also provide critical areas of refuge during bushfires as they burn at a lower severity than younger forests, or even remain unburnt.

Victoria's mountain ash forests are one of the most carbon-dense forests in the world. Even after a high severity fire, 86-94 per cent of the carbon remains in their massive trunks and the root systems.

Mountain ash forests are particularly adapted to recover after fire. But in the post-fire condition, the new regeneration is highly vulnerable.

The extensive salvage logging operations that took place in the burnt forests for the three years after Black Saturday did widespread damage

Continued overleaf

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to the regenerating forests, with the localized losses of many species. Salvage logging operations move in quickly after fires to recover timber resources before they decay. They clear large areas of forest and destroy natural seedling regeneration with a second fire event post-logging. The loss of hollow-bearing trees was also very significant, with many areas now having no remaining hollow trees. For these areas, and assuming no future fire or logging, it will be well over a century before they once again have trees with hollows present.

Long-term ecological research in the mountain ash forests, led by Professor David Lindenmayer and his team at the Australian National University (ANU), monitored these forests for 25 years before Black Saturday, and has continued in the ten years since.

Since the fires, they have found a strong decline in the populations of Leadbeater's possum and greater gliders, which they believe is directly linked with the rapid decline in the number of large old hollow-bearing trees. Interestingly, the two most common species of small mammals, agile antechinus and bush rats, recovered after the fire within two generations. Monitoring and genetic research revealed the burnt areas were recolonised by individuals that survived the fires and not through immigration of individuals from unburnt areas.

After the fires, most bird species declined significantly. Only flame robins were found to have a positive response immediately after the fires as they are able to take advantage of the influx of insects into fire effected areas. Ten years on, about half of the bird species in the mountain ash forests are now showing signs of recovery, although birds dependent on hollows are declining.

The ANU research also found that burnt old forests recover more quickly than young burnt forests. They have



This site in the Rubicon burnt at low severity, but all three dead hollow-bearing trees in this image were lost (numbered stumps). Thirteen months after the fires the ferns have recovered well.

PHOTOS: DAVID BLAIR

more eucalypt seedlings come up after fire, and the ferns and tree ferns recover quickly, benefitting from the increase light due to the loss of tree canopy. Unsurprisingly, areas that were salvage logged after the fires had the lowest plant species diversity.

Leadbeater's possum

Victoria's critically endangered state faunal emblem, Leadbeater's possum, was severely impacted in the Black Saturday bushfires. They lost 45 per cent of their forest habitat

in this single fire event. As a 'hollow-dependent' species, that relies on the presence of large old trees with hollows for nesting and protection from predators (owls), they have a complex relationship with fire in their habitat. Mountain ash trees typically take 150 years for tree hollows to begin forming, so Leadbeater's possum are generally found in forests with old trees. That is not to say it must be old growth; they are actually most commonly found in younger regrowth forest. However, unless the old hollow-bearing trees are present

A large old 'stag' tree that had been monitored by ANU burnt in the fires. Monitoring prior to the fires showed this tree used to have resident Leadbeater's possums.

in those younger forests, Leadbeater's possum will not be present. Typically, it is large old live trees that die in a high severity fire that subsequently stand as a dead hollow bearing trees that are most commonly used by Leadbeater's possum. The larger the diameter of the tree, the longer it will stand.

Where the Black Saturday bushfires burnt and killed stands of old growth mountain ash forests, like the east side of the protected O'Shannassay water catchment, Leadbeater's possum habitat will be recovering. While the majority of old growth trees in these areas are now dead, they are starting to crack and decay, creating new opportunities for hollows to form. Stimulated by the fire and the opening up of the forest to light, a new generation of eucalypt and wattle trees have sprung up and are already nearly 20 metres tall. Because this area was not salvage logged, it will be excellent Leadbeater's possums in the near future.

Now and into the future

The mountain ash forests of the Central Highlands have evolved to cope with periodic fire over many thousands of years. However, due to climate change, the interval between fires is decreasing, and with the added impact of over a century of logging, the forests are now younger and more vulnerable than they have ever been. We need to give them the opportunity to get old again. Their generations are much longer than ours, so we need to be committed to saving these forests for future generations of Victorians, not just future logging rotations.

To have a chance of preserving Victoria's mountain ash forests, and the myriad of plants and animals that rely on them, we must protect all large old trees from avoidable impacts. We also need to look at protecting the next oldest cohort of the forests, the regrowth trees from the 1939 fires. This cohort is now 80 years old, and rather than viewing it as the 'best



PHOTOS: DAVID BLAIR

Stands of old growth forest killed in the 2009 fires will be excellent Leadbeater's possum habitat in the near future, with dense eucalypt and wattle growing around the large dead trees. This regrowth is five years after Black Saturday, in the O'Shannassay water catchment.

supply of wood products', we need to start looking at it as the 'next old growth forest'. At a minimum, all remaining hollow-bearing trees must be fully protected from logging, and ultimately this means a full and just transition for the timber industry from native forest logging into plantations.

Future fires in Victoria's mountain ash forests are inevitable, and likely to be more frequent and higher intensity due to climate change. While increased control

of ignition points can help reduce fire frequency, the impacts of logging and salvage logging are completely avoidable. It is time the Victorian Government values the social, economic and environmental values of our amazing mountain ash forests as water catchments, carbon storage, ecosystems, cultural heritage, tourism opportunities and recreation potential. Creating the Great Forest National Park would support the protection of all of these values to the benefit of all Victorians. • PW

SHIFTING SANDS

THE ANDREWS GOVERNMENT'S SPECIAL TREATMENT OF THE RACING INDUSTRY HAS REACHED A WHOLE NEW LEVEL. BUT SO TOO HAS THE RISE OF COMMUNITY OPPOSITION, EXPLAINS VNPA NATURE CONSERVATION CAMPAIGNER **SHANNON HURLEY**.



PHOTO: BOARD RIDER'S CLUB WARRNAMBOOL

After commercial racehorse training was found to be illegal on Warrnambool's beaches under local planning laws, it was halted indefinitely. That is, until pressure from the racing industry caused Victoria's Planning Minister to falter. In an outrageous move, our worst fears became reality.

Unfortunate intervention

The racing industry's push for control of our public beaches has resulted in racehorses once again being allowed to plough up and down the Belfast Coastal Reserve.

VNPA first wrote to the Planning Minister Richard Wynne back in October 2018 calling on him to refrain from intervening to reallocate commercial racehorse training at Levys Beach in Warrnambool.

Warrnambool City Council tied itself up in knots over the issue, going back and forth until finally voting to rescind

their earlier decision to support commercial racehorse training on its beaches, in line with it being an illegal activity under its own planning laws.

While it was publicly reported during the state election caretaker period that any planning changes would be a matter for council, the Andrews Government wasted no time after the state election to intervene, seemingly going to great lengths to back the racing industry.

After Racing Victoria and the Warrnambool Racing Club requested the Planning Minister to proceed with the planning amendment, the Minister bowed down to the pressure. Scrapping any opportunity for public consultation, with the consent of Warrnambool City Council he proceeded to fast-track a planning amendment.

In an unusual move that can only occur in 'extraordinary circumstances', a new document

was incorporated into the Warrnambool Planning Scheme (a so called 'Special Control Overlay') and the planning amendment was published in the *Victorian Government Gazette* on 7 January.

It essentially overrides the previously prohibited use of commercial racehorse training on Warrnambool's beaches. As soon as the necessary approvals are granted, Levys Beach will become accessible to up to 160 racehorses per day.

Once again damaging hooves can plunder the sensitive coastal habitats of Belfast Coastal Reserve.

But it doesn't stop there.

The racing industry has also now been given special permission to access Hoon Hill, a large dune area of cultural and environmental significance, via a new access point at Spookys Beach. This will require additional infrastructure and works, and further cultural heritage approval.

Left: Local rally in January opposing commercial racehorse training.

This is inconsistent with the plans laid out in the *Belfast Coastal Reserve Management Plan*, which to date the Andrews Government has hidden behind.

The Andrews Government's argument of a 'balanced outcome' for the reserve has at its core the fact that after initially allowing a tenfold increase in racehorse numbers in 2015, and then creating a plan that essentially halved the number in 2018, it is still allowing roughly a five-fold, or 500 per cent, increase in racehorse traffic in an environmentally sensitive reserve. And this is despite it being unlawful under both its Crown land designation and zoning.

This shows the power of the racing industry, and disappointingly, how much the Andrews Government will seemingly protect those interests.

This new access point was backed in by the Warrnambool City Council last month, with it voting to allow horses permanent access to Hoon Hill via Spookys Beach.

The rise of community power

This outrageous special treatment of the racing industry has been met with strong community opposition. Surfers, fishers and other beachgoers have been actively outspoken about their beaches being handed over.

The Warrnambool Boardriders Club, Warrnambool Coastcare Landcare Network, and FarWest Friends of the Hooded Plover are some of the local groups that have joined forces with the Belfast Coastal Action Group to rally, host community events and contact decision makers. Their tireless efforts have been supported by VNPA and our supporters, Birdlife Australia and Environmental Justice Australia.

Meanwhile, south-west Traditional Owners have set up a 'Protectors of Country Camp' in the dunes at Levys Beach. They believe the 160 racehorses a day could be trampling through culturally and environmentally sensitive beaches and dunes, and have invited Premier Andrews to visit Levys Beach and discuss the Indigenous community's concerns.

The issue is fast-gaining traction as a statewide issue, with recent media coverage in *The Age* and *The Guardian*.



Before commercial racehorse training can resume on the Belfast Coastal Reserve's pristine beaches, consents and licenses still need to be issued by government agencies. But if the community activity so far is anything to go by, this will not come without strong opposition.

Since 2015, VNPA along with the Belfast Coastal Reserve Action Group has been opposed to the plans. The flawed proposal has been criticised every step of the way. Most of these concerns have been ignored by the Andrews Government.

With the recent scandals widely reported in the media about key racing identity Darren Weir, a major user of the reserve, the state government's response that this is somehow a 'balanced outcome' is sounding even more hollow. • PW

TAKE ACTION

Victorian beaches belong to all of us – not to a powerful and influential industry with privileged connections. Yet up to 160 racehorses per day are set to pound along a majestic stretch of beach between Warrnambool and Port Fairy.

Commercial racehorse training in the Belfast Coastal Reserve is a risk to wildlife, community safety and cultural heritage.

Disappointingly, the Andrews Government and local Warrnambool City Council have given special treatment to the racing industry, and are handing over our public beaches for private profit and damaging use.

What will be next?

Write to the Premier Daniel Andrews and Warrnambool City Council to tell them enough is enough – say no to commercial racehorse training on Victoria's beautiful and beloved beaches by visiting www.vnpa.org.au/action-for-beaches

Please support this important work by donating today. You can use the form on the back cover of *Park Watch*, call us on 03 9341 6500, or visit www.vnpa.org.au/support-for-beaches



PLANS FOR OUR BIG BLUE BACKYARD

VICTORIA IS LOOKING TOWARDS A NEW INTEGRATED
WAY OF MANAGING OUR MARINE ENVIRONMENT
THAT INVOLVES CROSS-SECTOR COLLABORATION,
EXPLAINS **SHANNON HURLEY**.

Victoria is lucky to have custodianship of the 10,000 square kilometres of marine waters which surround our coastline, and sustain many Victorians way of life.

Also calling this environment home are an incredibly diverse and unique amount of species – 12,000 (that we know of) – many which are found nowhere else on earth.

With this comes a huge responsibility to manage such a precious resource sustainably, not only for it to survive, but to thrive.

VNPA has long pushed for improved management of our coasts and marine environment. In the lead up to the 2014 state election the Labor Party promised to do just that. In August 2018, Victoria passed a key milestone, a new bill called the *Marine and Coastal Act 2018*, which is critical for guiding improved management arrangements for our coasts and marine environments going forward.

Whilst there were significant shortfalls in the new Act, such as cutting the role of the Victorian Coastal Council and abolishing regional coastal boards (see page 18, March 2018 *Park Watch*), there are positives, one of which is an overarching statewide marine and coastal policy.

A significant feature of the marine and coastal policy is the development of a marine spatial planning framework that establishes a process for achieving integrated and coordinated planning and management of the marine environment – a first for Victoria as a whole. In simple terms, it could be similar to a land use planning scheme, with zones for particular uses, but on a much larger scale for the protection of our largest publicly-owned space in Victoria – our marine environment.

With more pressure from a growing population and increased use of our marine environment across both industry and recreation, as well as climate change, the sustainable management of our marine environment is becoming much harder to achieve. Marine spatial planning should be a critical process to allow for collectively better decision-making on the cross-sector management, use and protection of our big blue backyard – so that we don't love it to death, or overexploit it and fall into the tragedy of the commons.

There are many different interests at stake when it comes to our coastal and marine environment; whether it's industry (ports, fisheries, tourism, energy production), recreational (boating, fishing, scuba diving), conservation (biodiversity protection, research), or the Indigenous community. Currently these are variously managed, but often decisions are made in isolated sector 'silos'.

A new marine spatial planning framework will ideally provide overarching guidance for ministers and managers

to integrate decision-making and management across sectors, and we hope it will have a clear vision to use it sustainably. But success of this vision will need buy-in from all sectors, and to be followed up with clear, coordinated actions for implementation. These should not be watered down, and should stand for a healthy marine environment and foster strong leadership and stewardship of our precious under sea and coastal life.

This process has already been undertaken in other places around the world. The first was Germany in 2009, with a key driver being the need for wind energy extraction; then China in 2015, driven by decreasing health in the marine environment; and New Zealand in 2017, in the most heavily contested and degraded area near Auckland.

The new Marine and Coastal Council (an outcome of the new Act) is the lead to guide the process, with the Department of Environment Land Water and Planning (DELWP) being the lead to develop it, and co-endorsed by relevant portfolio's ministers.

VNPA attended the first workshop in January this year, and the outlook appears positive. But it will need continued fostering and priority within government, all interest groups and the community if we are to get it right.

We will continue to be involved in shaping the first steps of the marine spatial planning process, a co-designed framework developed together with all marine stakeholders, across three workshop days. This framework will be the basis for deciding when, where, and how a marine spatial plan will be implemented. The expected timeline is for the framework to be out for public consultation mid-2019, and finalised by December 2019.

There will be many challenges – having a framework all sectors can accept, getting the governance right to deal with varied legislation, bringing groups together that have a history of conflict, and the expanse of and varied uses given the size of our coastline.

If we do get it right, the benefits could far outweigh the challenges – a shared awareness of the threats and ability to take an ecosystem-approach response; the opportunity to think and act proactively rather than responding to risks when it is too late; shared responsibility and stewardship for working together to ensure sustainability for the future.

The ability to make informed evidence-based decisions for planning and management means there is much to be gained as users of the marine environment, but also much to give back. If other countries efforts are anything to go by, it is within reach. It is a must if we are going to give our big blue backyard the chance to continue to sustain our needs, and ensure it survives and thrives as a healthy marine environment into the future. • PW

Is it time to make national parks truly national?

WITH A FEDERAL ELECTION LOOMING, WHAT IS THE ROLE OF THE AUSTRALIAN GOVERNMENT IN THE MANAGEMENT OF OUR PRIME NATURAL AREAS – NATIONAL PARKS? BY VNPA DIRECTOR **MATT RUCHEL**.

We know national parks and conservation areas are popular. Statewide polling commissioned by VNPA in November 2018 showed that around 73 per cent of the community supported a comprehensive network of national parks and conservation areas across land and sea. (Of these, 37 per cent 'strongly supported' and 36 per cent 'supported'. A further 14 per cent were 'undecided', 13 per cent 'opposed', and five per cent 'strongly opposed'.) Interestingly, the opposition is similar to the levels of support for native forest logging. Not surprisingly, the support figures jump in the inner city. Support for marine national parks and sanctuaries is even higher at 81.5 per cent.

So you would think with these high levels of support it should be an opportunity for politicians of any party or jurisdiction to talk about something different and positive to a fairly jaded electorate. While there was a package of parks funding announced in the Victorian state election campaign, we did not see any announcement of major new parks, and we haven't had a new marine park or sanctuary in Victoria for more than 15 years.

The Australian Government manages and provides funding for national parks in territories and offshore – so places like Kakadu, Uluru, and the Great Barrier Reef are responsibilities of the Commonwealth, though some parts may be joint managed with territories, adjoining states and Traditional Owners.

National parks in the states are state responsibilities, though areas with World Heritage or National Heritage status may get financial support, and some national oversight in limited cases. Roughly 70 per cent of national parks and other publicly-owned protected areas (IUCN Category I-IV) in Australia are in the states.

So while called national parks, they are really creatures and creations of state government. This is not uncommon in the history of the Australia federation – most train lines didn't match up at state borders until recently.

However the federal government has signed up to the international Convention on Biological Diversity (CBD), which does give it a legal role in oversight and support for management of national parks and conservation areas. We are not talking about some sort of 'take over' from the Federal Government of state territory here, because that is unrealistic and likely counterproductive; but rather the legitimate role of the Australian Government to

help manage, or at least incentivise the states to better manage, our unique natural heritage on behalf of all of us.

On the back of the ALP National Conference late last year, the federal ALP announced that if elected, a "Shorten Labor Government will ensure the federal government returns to taking leadership role in protecting our natural environment by creating an Australian Environment Act, and establishing a Federal Environmental Protection Agency".

This commitment was welcomed by many in the conservation world. A long-running campaign by the Places You Love Alliance (a national alliance of 54 environment groups, including VNPA) wanted this commitment to go further, but it is a start.

In the detail of the ALP National Platform 2018, there are suggestions that progress could be made in at least setting some oversight of state management of our prime natural areas.

It set out priorities to create new climate, land clearing and water triggers in the reform of our national environmental laws, shown in the wording that "Labor will also consider a National Parks trigger to protect Australia's system of National Parks", and "Labor will protect Australia's biological diversity through a national system of comprehensive adequate and representative parks and reserves, while using education, regulation and incentives to achieve ecologically sustainable use elsewhere in the landscape".

Some positive sounding noises – but what should they be looking at in concrete terms? The idea for our national environment laws (the *Environment Protection and Biodiversity Conservation Act 1999*) to have a 'trigger' for the federal environment minister to assess and put conditions on inappropriate actions in national parks first came up following the last round of the alpine cattle grazing dispute between 2010-2014. The then federal environment minister Tony Burke intervened in the dispute after the state government tried to introduce cattle back into the Alpine National Park under the guise of a flawed scientific trial. The ALP had made commitments to look at the idea of an EPBC Act trigger in 2013 election, which they lost. Essentially, the logic goes, the Australian Government has international obligations to protect the integrity of national parks – but what can it do if a state government goes feral and wants to damage, develop or destroy national parks? To date, not much.

VNPA and other national parks associations around the country, as well as community conservation groups, have developed a package of policy proposals through the National Parks Australia Council (NPAC) which explore the options and opportunities for the Australian government to ensure our national natural heritage estate is protected.

NPAC has produced a series of background briefings and discussion papers on some of these key areas. They include:

- *National parks – a matter of national significance*
- *Maintain the values of the national reserve system*
- *Completing Australia's national reserve system*
- *Enhancing landscape connectivity*
- *Marine protected areas*

They can be viewed on our website www.vnpa.org.au/npac

We are also advocating for improved federal funding through programs such as the National Reserves System Program (NRSP), or similar. This program is currently not funded nationally. Programs such as this need renewed long-term funding, to both fill gaps in the reserve system, and to incentivise better management.

There is also merit in improving connectivity and developing an expanded wildlife corridor network, ideally utilising both the public and private reserve system. • PW

Working with our peers

The National Parks Australia Council (NPAC), formed in 1975, is a national body that coordinates and represents the views of a range of state and territory non-government organisations, with a mission to protect, promote and extend national park systems within Australia.

Member groups represent supporters across Australia, and include the Victorian National Parks Association (VNPA), National Parks Association of NSW (NPA), National Parks Association of Queensland (NPAQ), Tasmanian National Parks Association (TNPA), National Parks Association of the ACT, and the Nature Conservation Society of South Australia.

Victoria Range, Grampians
(Gariwerd) National Park.

PHIL INGAMELLS

WONDERS WHY
PARK VISITORS ARE
INCREASINGLY LEFT
IN THE DARK.

It's a strange business this. People really like learning about nature. But despite the fine efforts of the likes of David Attenborough, their hunger for knowledge is largely unsatisfied.

One sad indication of this situation is the decline in park visitor information centres, and visitor education generally (digital or otherwise), across Victoria's park system – a reflection, it seems, of changes in administrative priorities and values.

Until about 1995, there were around a dozen park visitor centres in the state. Organ Pipes (popular with schools), Point Nepean and Port Campbell national parks' centres are among those that have since closed.

When visitor centres come to grief, as at Mount Buffalo's Cresta Valley centre (burnt down), Kinglake (burnt down) or Barmah, where white ants made the Yorta Yorta education centre and school accommodation facilities inoperable, plans to replace them seem to founder.

Grampians (Gariwerd) National Park still has the wonderful Brambuk centre for Aboriginal culture, but the adjacent large information centre highlighting the park's natural history with displays and audio-visuals was co-opted for park administration years ago. The Wilsons Promontory centre at Tidal River, though recently revamped, is a shadow of its former comprehensive and innovative form.

Perhaps the greatest fall from grace is the Orbost Rainforest Centre, designed to promote park tourism throughout East Gippsland, and to educate the public about the significance of our ancient cool and warm-temperate Gondwanan rainforests. Millions were spent





What happened to Victoria's park visitor centres?

Park information centres are still a priority in other states and New Zealand. This is part of the display in Tasmania's Mount Field National Park visitor centre, illustrating the different mechanisms of bird beaks.

on this architect-designed centre around 1990, including the planting of a 'rainforest gully' in an adjacent quarry. Now the rainforest boardwalk is closed, the many tree-ferns have died, and the displays and audio-visuals in the large visitor centre have been dismembered. Lacking any operational budget, the building was gifted to the local community house.

On a positive note, a centre still carries on under contracted private care – the one at the entrance to Princess Margaret Rose Cave in Lower Glenelg National Park.

The centre at Wyperfeld National Park was recently revamped by the Friends of Wyperfeld with assistance from park staff, and is open 24 hours a day. A similar effort by keen volunteers and staff at Tarra-Bulga National Park keeps that centre open, mainly at weekends.


Left: Information centres aren't the only answer. This is one of a series of youngster-sized education tunnels, along a short rainforest boardwalk near the entrance to Cradle Mountain-Lake St Clair National Park. Digital platforms are also an option. There is no shortage of stories to tell or means by which to tell them.

There have been promises. The magnificent 660,000 hectare Alpine National Park has no visitor centre at all, even though both the 1992 and 2016 management plans asked for at least one in feeder towns like Falls Creek and Omeo.

This is unfortunate and short-sighted, given that the real and potential interest in our national parks is considerable, and the contribution parks can make to our mental and physical health, and to the economy, is well known.

Our scientists, amateur naturalists and Indigenous communities are increasingly gathering remarkable tales about our natural areas, the creatures that inhabit them, and an ancient cultural heritage. But the park visitor and the broader community are not being invited to share in that knowledge.

Visitor centres remain popular worldwide, including in New Zealand and other Australian states. Abandoning them in Victoria is a very short-sighted austerity measure. • **PW**



The construction site of a new entrance station and visitor information centre at the Dove Lake area of Tasmania's Cradle Mountain-Lake St Clair National Park, called for by rapidly growing visitor numbers. Hopefully it will incorporate information from the old visitor centre at Cradle Mountain, and more. Victoria's Wilsons Promontory is greatly in need of a similar entrance station visitor centre, from where traffic can be controlled by buses in peak periods, and where people can learn about the park's great cultural and natural heritage.

States of equine confusion

WILL HIGH COUNTRY FERAL HORSE MANAGEMENT EVER MAKE SENSE? NOT WHILE PEOPLE IGNORE DECADES OF SCIENCE, SAYS PARK PROTECTION CAMPAIGNER PHIL INGAMELLS.

Above: It's not just horses; pigs, goats and deer are also causing great damage in our alpine parks.

Pig impacts here near the Mont Stradbroke walking track, eastern Alpine National Park.

Inset: The veined sun orchid usually grows in sub-alpine meadows, sphagnum peatlands and streambanks, all prime areas for horse damage.



PHOTO: IAN RAYMOND

PHOTO: PHIL INGAMELLS

Will we ever deal with feral horse damage to our great national parks?

For over 30 years now, there has been a Memorandum of Understanding between the environment ministers of the ACT, NSW and Victoria, and the federal minister, promising to cooperate in the management of the 'Australian Alps National Parks', primarily the three big contiguous parks: Namadgi in the ACT, Kosciuszko in NSW, and the Alpine National Park in Victoria.

They promised to work together, managing the "flora and fauna, ecological processes and communities unique to Australian alpine and sub-alpine environments",

and to "pursue the growth and enhancement of intergovernmental co-operative management".

But if we take alpine feral horse management today, that level of cooperation seems a dream. Let's take a look at the situation as it currently stands across those borders.

The ACT

Namadgi National Park's managers have a zero-tolerance approach to feral horses, with a strong policy on lethal control, including shooting on site. There are no horses in the park, but they have significant problems with invasions across their border with NSW.

NSW

The NSW National Parks and Wildlife Service came up with a well-researched plan to manage feral horses in Kosciuszko National Park, and it was supported by their environment minister. But a change of minister last year, and the state member for Eden Monaro's intervention, led to a dramatic reversal of policy. NSW law now protects feral horses in the park, for heritage reasons, and aims to manage impacts from the current (and growing) population of 7,000 through "relocation to less sensitive parts of the park" or, if necessary, by rehoming.

It's an extraordinary victory for the small but very loud pro-horse lobby, over a wealth of scientific evidence of damage to wetlands, moss-beds, plants, fish and other animals in Kosciuszko.

A recent conference at the Australian Academy of Science produced the 'Kosciuszko Science Accord', signed by over 100 attendees, including most of the country's leading alpine scientists. It asks the NSW government to:

- acknowledge the extensive, serious and potentially irreparable damage being done to Kosciuszko National Park by feral horses, and
- cooperate with Victoria and the Australian Capital Territory to remove feral horses from the protected areas known together as the Australian Alps national parks, through aerial culling and other effective means.

And the NSW Threatened Species Scientific Community, a state government body, has recently declared feral horses as a 'key threatening process'. But it seems a change of government is the only hope to rescue the science, and the park.

Victoria

In 2017, in line with the Alpine National Park's management plan, Parks Victoria published its *Alpine National Park Feral Horse Strategic Action Plan 2018-2021*. The consultation program involved two series of workshops with community advisory panels, as well as an expert Technical Reference Group; Traditional Owners have also been consulted, and animal welfare agencies. Over 1,000 public submissions to the draft strategy demonstrated overwhelming (80 per cent) support for control of the feral horse population, and for the prime purpose of the park's governing legislation: nature conservation.

The strategy will remove horses by trapping and rehoming when possible, or by trapping and humanely euthanising on site when rehoming is

not an option. Over the period 2018-2021, the strategy aims to:

- remove up to 1,200 horses from the eastern areas of the Alpine National Park,
- remove all of the horse population from the Bogong High Plains/Cobungra area, and limit potential reinvasions,
- prevent new horse populations developing.

That's all very well, but at the time of writing (almost through the first summer of the strategy), just a few horses have been taken from the Bogong High Plains (all from a new population around Mount Nelse). And around 18, it seems, have been removed from the more highly populated eastern part of the park. In other words, since the strategy was signed off, Parks Victoria has been removing far fewer horses than before the strategy started, an amount well below what is needed to stall population growth.

One reason for the reticence is a threatened Federal Court injunction by the Australian Brumby Association (ABA). Parks Victoria has reached an agreement with the ABA to hold off control on the southern Bogong High Plains for now until the matter goes to court, possibly mid-year. But our legal advice makes it pretty clear that the ABA doesn't have a case. Parks Victoria's has strong legal responsibilities under Victorian law, and federal legislation also recognises the impacts of feral horses.

It's hard to find any protection for feral horses in either federal or Victorian law:

- Victoria's *National Parks Act 1975* unambiguously obliges Parks Victoria to act "for the protection and preservation of indigenous flora and fauna", and to "exterminate or control exotic fauna" in the park.
- Victoria's *Flora and Fauna Guarantee (FFG) Act 1988* lists 'Degradation and loss of habitats caused by feral horses' as a Potentially Threatening Process – the highest (and only!) threat listing available under the Act. The FFG Act also lists a

number of threatened plants and animals, and several threatened plant communities, impacted by horses.

- The Australian government's *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* lists 'Novel biota [i.e. introduced species] and their impact on biodiversity' as a Key Threatening Process. It also lists 'Alpine sphagnum bogs and associated fens' as a threatened ecological community, and the associated Policy Statement points out that trampling by hard-hooved feral animals, including horses, remains a threat to that wetland community.
- The EPBC Act also puts the Australian Alps National Parks and Reserves on the National Heritage List, giving federal recognition to more than one and a half million hectares of alpine and sub-alpine prime nature conservation estate. That listing emphatically establishes the importance of the area's natural values, stating: "The Alps are one of eleven sites recognised in Australia by the IUCN as a major world centre of plant diversity".

The listing notes many other things, including the pioneer horse cultural heritage, but it doesn't require the ongoing presence of horses, just as the national heritage listing of Tasmania's Port Arthur penal settlement doesn't require the ongoing presence of convicts.

One thing the alps heritage listing is clear on is the "outstanding heritage value for the scientific research that has taken place since the 1830s, demonstrated by the density and continuity of scientific endeavour".

Many decades of science have demonstrated the considerable damage hard-hooved grazing animals cause to our alpine parks. It's time our politicians and park managers acted unequivocally on that evidence. • PW

A limited number of copies of the proceedings of the Kosciuszko Horse Conference are available at the VNPA office.

Strathbogie Forest campaign gets a boost

PREMIER ANDREWS SHOULD LISTEN TO BOTH EXPERTS AND REGIONAL VICTORIANS
WRITES **BERT LOBERT**.

Previously we have highlighted the community campaign to protect the Strathbogie Forest in the north-east of the state (*Park Watch* September 2018). Now, significant results of a recent government survey gives the community additional strength to continue the fight.

Citizen science surveys conducted in 2016–17, funded by the Victorian Government, found exceptionally high numbers of greater gliders in many parts of the 24,000-hectare Strathbogie Forest.

This then led to interest from the Department of Environment, Land, Water and Planning (DELWP), who were initiating research into the survey methodology used to detect and estimate densities of greater gliders across Victoria.

Between October and December 2017, scientists from DELWP conducted 25 transect surveys (a sample line through the forest along which observations are recorded) in various parts of the forest using a specialized double-count technique. The survey results confirmed that the Strathbogie Forest is one of the few areas left in Victoria where there is a substantial population of greater gliders (about 70,000) that has not been decimated by logging and wildfire.



Above and inset: The local community continue to stand up for their forest.

The report found that:

- The Strathbogie Forest supports a large and regionally important population of greater gliders.
- The greater glider population in the Strathbogie Forest has not suffered the declines that have occurred in the Central Highlands and East Gippsland.
- The greater glider population in the Strathbogie Forest is important for the conservation of the species.
- Many parts of the Strathbogie Forest support greater glider numbers that exceed the high-density threshold that would lead to forest protection in other parts of the state.

The Barjarg Flat coupe, the site of last year's community protests against logging, which resulted in numerous charges and fines for protesters, was part of the forest that had among the highest densities of greater gliders ever recorded – 14 individual greater gliders in one 500-metre transect.

Yet with full knowledge of this, VicForests logged Barjarg Flat coupe. To add insult to injury, most of the logs were shipped overseas whole, in containers, to Asia – so much for local jobs and value-adding.



The Andrews Government has been vocal about listening to regional Victoria, including in *Victoria's Regional Statement* in 2015: "Governments shouldn't try to tell you precisely what you need. They should listen to what you want, because you know best."

Well Premier, here is a community that has spent years telling your government about the importance of protecting the Strathbogie Forest, and now your government's own scientific knowledge backs that up. It's time for this government to make good its rhetoric and act.

We're calling on our supporters to keep reminding Premier Andrews that the Strathbogie Forest should be part of Victoria's protected area system.

For a link to the report and to learn more about the Save Our Strathbogie Forest Campaign, visit: www.strathbogie sustainableforests.wordpress.com • PW

Future of our forests



PHOTO: MATT RUCHEL

Plantation jobs are growing in south-west Victoria. Plantation timber stacked up ready for shipping from Portland, December 2018.

Australia's State of the Forests Report 2018 has been released by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) (See: www.agriculture.gov.au/abares/forestsaustralia/sofr). The report contains information about both native forest and woodland as well as the plantation sector.

One continuing trend is the decline in native forestry. The report notes that over the period 2010–11 to 2015–16, the volume of logs harvested from native forests declined by 37 per cent nationally. The report also notes that total national direct employment in the forest sector had a 24 per cent decrease from 2011, but with pockets of growth in plantation areas such as south-west Victoria.

The Victorian State of the Environment and State of Forests reports are expected to be released in March 2019 by the Commissioner for Environmental Sustainability.

The Victoria Government continues to undertake consultation on the future management of Victorian forests, including to “reform our forest management and guide the modernisation of the Victorian Regional Forest Agreements”.

There is a survey on the state government's Engage Victoria website, which we encourage our supporters to complete (see link below), and a range of meetings are also being held in regional areas, including western Victoria.

A reform of forest management is much needed. But it is hard to take some of this consultation process seriously, especially the largely superficial nature of the surveys on the Engage Victoria website, which often asks fairly esoteric questions about vision and values. The website, often jokingly referred to as “Enrage Victoria”, sends confusing messages, and it is hard to see how any of the information collected is of value to decision-makers (perhaps indicating forgone conclusions?) The website's introduction states: “We need to manage our forests for the multiple values they provide so future generations can enjoy and use forests as we do today” – which is really just saying there will be no change in uses such as logging. • PW

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Please complete the Engage Victoria survey here:
www.engage.vic.gov.au/future-of-our-forests. It closes on 31 March 2019.

HOW WELL DO YOU KNOW VICTORIA'S NATIONAL PARKS? TEST YOURSELF WITH OUR QUIZ!

BASED ON THE FOLLOWING DESCRIPTIONS, CAN
YOU GUESS WHICH NATIONAL PARK YOU ARE IN?

- 1 At the end of a day you have experienced glow worms, Erskine Falls (pictured) and an endemic (lives nowhere else in the world) carnivorous snail.
- 2 On your hike, you have ascended through snow gum woodland to reach the highest point in Victoria. You are above the tree line, surrounded by shrubland, grassland and herbfields full of wildflowers.
- 3 You've dipped your toes into the longest river in Australia, walked through native pine woodland and along the top of a sand dune. You've photographed an old Malleefowl nest, followed by watching pelicans at Lake Mournpall.
- 4 You've been surfing at a world-famous beach, seen blue throat wrasse and sponge gardens on a scuba dive over Jarosite Reef, and found decorator crabs while rambling through rockpools.
- 5 You arrived by ferry and walked/rode to the campground, visited coastal mangroves, have seen 20 of the more than 100 orchid species in the park, taken a beach walk surrounded by hundreds of wader birds, and spotted numerous koalas.
- 6 You've canoed for three days past the most westerly tree ferns in Australia, past forested slopes and tall limestone cliffs of an impressive 15 kilometre-long gorge. You are close to crossing the border out of Victoria. You have taken a guided tour of a cave and seen ancient stalactites, stalagmites and helictites.

Answers: see page 33

Whether you scored 0 or 6 out of 6, you can always get to know more of Victoria's national parks by having an adventure with us! See our activities program at www.vnpa.org.au/adventures

To learn more about experiencing these and other national parks across our state, see www.vnpa.org.au/parks



Draft deer plan will not protect nature or the community



PHOTO: ALEX MAISEY

Rainforest communities across the state are browsed bare from ground level to a deer's reach height, taking out mosses, ferns, fungi and epiphytic orchids, and trees are being ringbarked.

VICTORIA'S DRAFT DEER MANAGEMENT STRATEGY, RELEASED LATE LAST YEAR, LACKS AMBITION. IT WILL NOT REVERSE THE SERIOUS IMPACTS DEER ARE HAVING ACROSS VICTORIA, SAYS **PHIL INGAMELLS**.

Government strategies are rarely simple things; they have to answer to many authorities, and the Victorian Government's draft Deer Management Strategy is certainly no exception. It was developed by two departments, under at least two ministers, and was always going to be influenced by Victoria's powerful hunting lobby groups and their representatives in parliament.

Deer impact our finest natural areas, our farms and road safety. The broad community, land managers and the police all have an interest in this strategy – and the Treasurer, of course, wants it to be cost neutral.

It's no wonder the draft failed to address its key task: reversing deer population growth.

One million deer (there are six species in the state) are now occupying every terrestrial

habitat, from the coastal dunes of East Gippsland to the High Plains, from the dry Mallee to Melbourne's streambanks. And with a potential population growth of 30-40 per cent each year, they are poised to invade the rest of the nation. They eat almost everything within reach, ringbark trees by antler rubbing, and silt up waterways by wallowing in wet areas.

The strategy does acknowledge that "at least 1080 species of flora and fauna would benefit from deer control efforts across the state", but almost every species of plant are browsed by deer, and the regeneration of even common species is now seriously compromised in many places.

It seems recreational hunters take out around 100,000 deer annually, well below the current reproduction rate of several hundred thousand, yet the draft still relies on recreational hunters to solve the problem.

It trumpets an estimated economic benefit of recreational deer hunting in Victoria of "\$142 million per year", however it doesn't compare that to the far greater economic benefit of park tourism, currently estimated by Parks Victoria at \$2.1 billion and 20,000 jobs.

Nor does it acknowledge the economic and social costs of the expanding deer population, including:

- increased park and other public land management costs,
- the extensive destruction of publicly funded revegetation projects,
- water catchment impacts,
- road accidents,
- the engagement of police and others in managing growing numbers of rogue hunters.

Most worryingly, the final strategy will only establish 'a process' for locating different deer management zones. There is no suggestion in the draft that the clear legal imperative to manage national and state parks for nature conservation will be observed in the setting up of that zoning system.

The strategy does encourage facilitating a deer pet food industry. But there is no serious intention to apply, or invest in the development of, new management strategies such as targeted baiting or biological controls.

Parks Victoria has been investing in a range of control programs involving accredited recreational hunters, and has also trialled professional aerial culling, but so far relatively small numbers of deer have been removed. Bizarrely, Parks Victoria still has to apply for a licence each time it plans to cull deer within its prime conservation estate.

Deer are now one of the most damaging feral animals in the state; any current legislation which gives real or apparent protection to them should be dumped. • **PW**

Plants in peril

NEW RESEARCH BY THE THREATENED SPECIES RECOVERY HUB HAS IDENTIFIED THE TOP 100 AUSTRALIAN PLANT SPECIES AT RISK OF EXTINCTION – SEVERAL OF WHICH ARE VICTORIAN.



Dwarf spider-orchid
Caladenia pumila

Thought extinct for 80 years, then rediscovered ten years ago, there are only two plants left in the wild. The very small population has meant there is little genetic diversity, which hampers conservation efforts to propagate the orchid as most seeds are unviable and do not germinate. Continuing effort by the native orchid conservation program at the Royal Botanic Gardens Victoria has resulted in approximately six adult plants now in the nursery.

PHOTOS: MARC FREESTONE

Three quarters of Australia's threatened species are plants.

Knowing which plants are at greatest risk gives us a chance to save them before it is too late says Researcher Dr Jennifer Silcock from the University of Queensland.

"This list of Australia's top 100 imperilled plants will help conservation managers prioritise where to direct efforts to prevent extinctions," Dr Silcock said.

"Without action, future generations will not have the blue top sun-orchid, pretty beard orchid, hairy geebung, yellow mountain bell or matchstick banksia."

The research has just been published in the *Australian Journal of Botany*, and is based on a review of all available published information and interviews with 130 botanists from across Australia.

Ground orchids topped the chart, with 15 species making it on to the list.

According to co-researcher Dr Rod Fensham from the University of Queensland, the research team also identified the major threats driving species to extinction.

Urbanisation was the leading threat resulting in 22 species on the list, while 19 species are on the list due to inappropriate fire regimes.

"Many plants only remain in small isolated patches, which usually miss out on a lot of important natural processes like regular fires, meaning that fire-dependent species are not regenerating," Dr Fensham said.

"Introduced plant diseases like phytophthora and myrtle rust are pushing 18 of the plants on the list towards extinction.

"We are still learning the best way to control these plant diseases. Research is underway and will be vital to minimising the impact of these diseases on Australia's unique flora."

Historic and ongoing habitat loss is the major threat to Australia's plant species. Other threats increasing the risk of plant extinctions include grazing and trampling by livestock, native and feral animals like rabbits, climate change, weedy grasses and mining.

"The good news is that every one of the species on the list can be saved, we have the techniques required, we just need the commitment," said Dr Fensham.

"Seventy-one of the species are already on the national list of threatened species, for the remaining species applying for formal conservation listing will be an important step in their protection.

"The fate of these species depends upon support and action from governments and the community.

"A bonus will be that the actions required to save these species will also benefit many other vulnerable plant species."

Australia's Threatened Species Commissioner Dr Sally Box said the research was important to ensure action was informed by the most up-to-date scientific evidence. She said work was already underway for several species identified on the list, be it through targeted investment under the Threatened Species Strategy, or through the efforts of the Australian Seed Bank Partnership. • PW

The Threatened Species Recovery Hub is a partnership of universities to undertake research to recover threatened species, and receives funding from the Australian government's National Environmental Science Program.



PHOTO: JOHN EICHLER

Kellera
Kellera bogongensis

A low mat-forming shrub which only occurs in grasslands in the Alpine National Park. Declines have been linked to droughts and trampling by cattle, feral horses and deer, and some of these threats may be ongoing.



PHOTO: NEVILLE WALSH ROYAL BOTANIC GARDEN BOARD, CC

Grampians globe-pea
Sphaerolobium acanthos

A shrub growing up to one metre tall, with yellow or orange flowers. It is only found at four locations in the Grampians National Park, with less than 100 plants remaining. Grazing by feral goats and deer is a significant threat. It is also susceptible to the plant disease phytophthora. When fires are too frequent and intense they kill young plants before they have matured and set seed.



PHOTO: RUSSELL BEST, NATURESHARE CC

Large-flowered crane's-bill
Geranium sp. 1

A purple flowering Victorian geranium species which grows on basaltic grassland. It was once wide spread from Melbourne to Mount Gambier in SA, but is now only found in a small area north of Melbourne. It was presumed to be extinct, until rediscovered in 2000. These grasslands are now very weedy.

Victorian plant species at risk:

On the top 100 most at risk list

Southern shepherds purse (*Ballantinia antipoda*)
Dwarf spider-orchid (*Caladenia pumila*)
Rough eyebright (*Euphrasia scabra*)
Large-flowered crane's-bill (*Geranium sp. 1*)
Kellera (*Kellera bogongensis* – formerly *Kellera laxa*)
Gaping leek-orchid (*Prasophyllum correctum*)
Stiff groundsel (*Senecio behrianus*)
Grampians globe-pea (*Sphaerolobium acanthos*)
Forked spyridium (*Spyridium furculentum*)

Not on the top 100 most at risk list, but next in line

Sunshine donkey-orchid (*Diuris fragrantissima*)
Grampians pincushion lily (*Borya mirabilis*)
Charming spider-orchid (*Caladenia amoena*)
Bald-tip beard-orchid (*Calochilus richiae*)
Max Mueller's burr-daisy (*Calotis pubescens*)
Allied bent-grass (*Deyeuxia affinis*)
Narrow-leaf bent-grass (*Deyeuxia pungens*)
Eucalyptus dry white (*Eucalyptus ornans*)
Purple eyebright (*Euphrasia collina* subspecies *muelleri*)
Adamson's blown-grass (*Lachnagrostis adamsonii*)
Blown-grass species (*Lachnagrostis deflexa*)
Shiny nematolepis (*Nematolepis wilsonii*)
Shelford leek-orchid (*Prasophyllum fosteri*)
Brilliant sun-orchid (*Thelymitra mackibbinii*)

Note from VNPA: These imperilled plants are a sad indicator of many fragmented habitats in Victoria, and the pressure on them by feral animals as well as direct human impact and climate change. Even some species found only in our parks system are still threatened, due to past damage.



PHOTO: JOHN EICHLER

Rough eyebright
Euphrasia scabra

Rough eyebright is a semi-parasitic annual herb that grows up to half a metre tall and occurs around the edges of swampy grassland. Once very widespread, it is now extinct in NSW and SA, and only ten populations remain across Victoria and Tasmania. Likely causes include habitat loss due to goldmining, agriculture, establishment of pine plantations, and competition from weeds. Ongoing threats to remaining populations include feral pigs and deer, off-road 4WDs, grazing by livestock, weeds, and changed fire and water patterns.



PHOTO: JOHN EICHLER

Southern shepherds purse
Ballantinia antipoda

A small herb with white flowers found on moss beds in damp areas. Once fairly widespread in Victoria and Tasmania it is now only found at a single location near Castlemaine. The main cause of the plant's decline was land clearing and draining for agriculture. Climate change is expected to increase temperatures and decrease rainfall in the location of the remaining population. This will probably lead to further loss of habitat, as the important shallow moss mats become increasingly dry.

Kurth Kiln Regional Park

THE OBJECT OF 'IN PARKS' ARTICLES ARE TO CELEBRATE OUR PARKS SYSTEM AND TO INTRODUCE READERS TO SELECTED PARKS. IN PREPARING EACH ARTICLE, THERE IS PERSONAL SATISFACTION IN RESEARCHING AND REVISITING THE PARK, SAYS **GEOFF DURHAM**.

My introduction to Kurth Kiln was through the Friends of Kurth Kiln, formed in 1999, and much of the information for this article comes from their various publications. I visited the historic building Kurth Kiln on several occasions, but was otherwise not familiar with Kurth Kiln Regional Park, a 3,470-hectare Crown land reserve adjoining the 16,655-hectare Bunyip State Park reserved under the *National Parks Act 1975*. Both parks are managed by Parks Victoria.

There is no better starting point than the 1994 Land Conservation Council *Melbourne Area District 2 Review* Final Recommendations:

"A regional park is defined as: an area of public land, readily accessible from urban centres or a major tourist route, set aside primarily to provide recreation for large numbers of people in natural or semi-natural surroundings ..."

Located between Yarra Junction and Gembrook, Kurth Kiln Regional Park extends east from Kurth Kiln to

Egg Rock and the Bunyip River divide, and includes all public land in the Tomahawk Creek catchment.

Kurth Kiln, a large solid brick and concrete kiln built during World War Two to produce charcoal, is unique in the state. Together with a number of associated buildings and other extant structures, it has been classified as of state historical significance. Remnants of a number of pre-1939 sawmills and associated tramways also occur here, as does evidence of early mining activity.

The area's natural and historical features make it popular for walking, nature study, touring, car-based camping and horse riding. The close proximity of the Scout Association's Gilwell Park ensures the regular use by young people for activities such as hiking and orienteering.

The park supports a number of ecological vegetation classes, ranging from mountain ash wet forest and riparian forest, to shrubby foothill forest and swamp heathland. It has a rich orchid flora and contains the

rare plant, long pink bells (*Tetradlea stenocarpa*), and two vulnerable species, tall astelia (*Astelia australiana*) and brickmakers saw-sedge (*Gahnia grandis*).

The Kiln

Petrol was severely rationed during the World War Two and charcoal fuelled gas producers were fitted to 67,000 vehicles in Victoria. We had a 'Nasco' on our Dodge truck at our Bacchus Marsh orchard. Most charcoal was produced in covered pits in forests. Professor E. E. Kurth of the University of Tasmania invented a continuous kiln process utilising waste wood left over from sustenance scheme ringbarking projects and the 1939 bush fire. Timber was fed into the top and charcoal removed from the bottom of the ten metre high structure. The kiln was used intermittently as the need arose. The site is well interpreted with displays and information panels.

After the war the Forests Commission established a forestry camp with accommodation for over 100 workers in ex-army huts. The commission managed the surrounding area as part of the Yarra Valley Multipurpose Park.



PHOTO: PARKS VICTORIA



PHOTO: GEOFF DURHAM

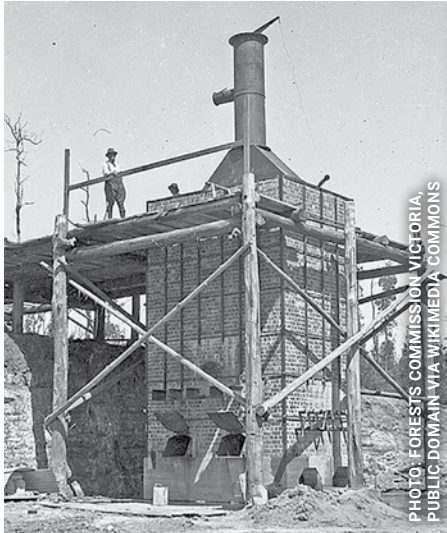


PHOTO: FORESTS COMMISSION VICTORIA, PUBLIC DOMAIN VIA WIKIMEDIA COMMONS



PHOTO: HELEN CROOK, FLICKR CC

Top left: A family enjoying a picnic in the park.

Top right: Horse riding through the forest.

Far left: The Kiln under construction in late 1941.

Left: The Kiln today.

Right: Abseiling on boulder outcrops.

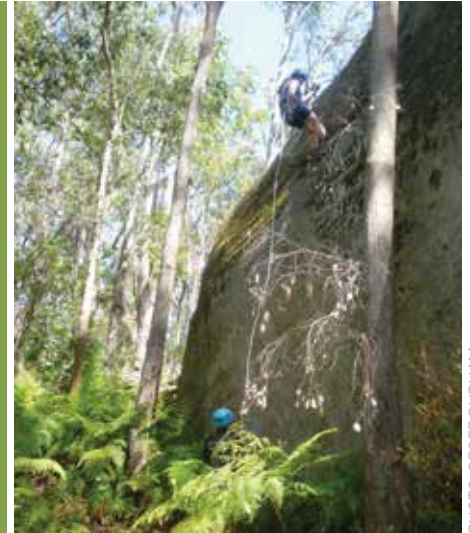


PHOTO: GEOFF DURHAM

Recreation

There are designated picnic and camping areas at the kiln (Melway Map page 14, R 10) with pit toilets and tank and creek water, but bring drinking water. Dogs are permitted under control. Free camping without pre-booking is available in a walk-in camp area, and 36 large open numbered sites along Scout Loop and Magazine tracks are suitable for caravans and trailers, with four communal fire places and some tables.

The park has many kilometres of signposted, sometimes potholed, gravel roads through the various forest communities. There are also 'Horses, Walker and Bicycle Only' tracks. Horse riding is popular with designated areas for loading and unloading and parking of floats.

The excellent Friends publication *Walking for Pleasure in Kurth Kiln Regional Park* details many walks. From the kiln, for walkers only, there are the Tomahawk Creek Circuit (two kilometres, 30 minutes) and the Thornton Walking Track (two kilometres, 30 minutes return) with interpretation panels.

Biodiversity

The park has high conservation values. VNPA's NatureWatch program has Caught on Camera project sites in the park. Present are lyre birds, owls, lace monitors, snakes, koalas, wombats, gliders and the southern pygmy possum. The Land Conservation Council said the lower reaches of streams support habitat suitable for the reestablishment of helmeted honeyeater, but there are higher priority sites. There are the usual feral animals, including deer. Weeds are not a major problem because of the robust native vegetation. The forest was burnt in the 1939 bushfire, and there have been other smaller fires since. The effect of fuel reduction burns carried out for asset protection of surrounding private properties is apparent.

This is granite country with many boulder outcrops. Shiprock Falls and Egg Rock are shown on the Parks Victoria visitor guide map. I visited them in December last year.

Ship Rock is 300 metres off the bitumen Gembrook-Launching Place

Road. The rock is an impressive boulder and a popular site for abseiling. Ship Rock Falls are adjacent – a cascade, with little water.

Egg Rock is off East Beenak Road near the park boundary, not far from where transmission lines cut a swathe across the park. I went expecting a prominent egg-shaped perched tor similar to The Monolith at Mount Buffalo. A 500 metre management vehicle road leads to Egg Rock fire lookout tower, the fourth fire lookout at the site. The first was on top of a tall silver ash tree, the second a timber tower, the third a 20 metre metal tower constructed in 1966, and replaced in 2002 with the present 30 metre tower. The tower is not accessible to the public. There would be a magnificent 360-degree view from the lookout platform, but the view from the base is restricted by surrounding forest. There were boulders, but no egg; in 1966 it had been blasted off its base into the valley below by local vandals. • PW

At the time of printing, parts of Kurth Kiln National Park may have been among the many areas of Victoria affected by fire this summer.

A close-up photograph of a Southern Brown Bandicoot. The animal is positioned on the right side of the frame, facing left. It has a long, dark, pointed snout and small, dark eyes. Its fur is a mix of brown and grey, with a slightly coarse texture. The background is a blurred natural setting with dry leaves, twigs, and some green vegetation. In the top left corner, there is a red rectangular logo with the words 'SPECIAL SPECIES' in white, uppercase letters. The title 'SOUTHERN BROWN BANDICOOT' is written in a large, white, handwritten-style font across the upper left portion of the image.

SPECIAL
SPECIES

SOUTHERN BROWN BANDICOOT



Southern brown bandicoots (the scientific name for the Victorian population is *Isoodon obesulus obesulus*) were once wide-spread across southern Victoria, but these endearing rabbit-sized marsupials are now dispersed across the landscape due to extensive clearing of land for agriculture and urban development.

Being nocturnal, they come out at night to forage for a range of tasty delicacies like worms, spiders, beetles, plant roots and fungi. They use their long, pointed noses to dig cone-shaped holes to search for food, and their dexterous hands and claws to hold their food while devouring it.

Their digging turns over the soil, and while this may be considered a nuisance on private lawns or golf courses, it is an important contribution to recycling nutrients in the ecosystem.

Southern brown bandicoots live a largely solitary life in home ranges as large as five hectares. During the day they will be resting in their well-hidden nests made of shredded vegetation. They aren't fussy when it comes to staying safe. If their traditional habitat of tall native grasses and rushes is not available, they will use blackberry bushes or even old car bodies in fields for protection from predators. Traditionally they had to worry about native predators like owls, snakes and quolls. These days they are under pressure from predation by cats and foxes as well.

A great place to see them is the Royal Botanic Gardens Cranbourne. If you are lucky enough to live in that area, you may also see them in your backyard or the local park. Look for the cone-shaped holes in grassy areas as an indication they are around, or do a night-time stake out in a local park to see if you can see one.

Our NatureWatch program's Caught on Camera project monitors wildlife, including the southern brown bandicoot, using motion-detection cameras. We will be heading into the field in March in the Wombat State Forest and in August in Bunyip State Park. Come be a citizen scientist with us! Visit www.vnpa.org.au/programs/caught-on-camera • PW

We can save Mount Buffalo's Chalet – and the park

THERE IS A WIN-WIN-WIN SOLUTION FOR MOUNT BUFFALO NATIONAL PARK, SUGGESTS **PHIL INGAMELLS**, BUT IT'S NOT THE ONE CURRENTLY BEING EXPLORED.

When the Mount Buffalo Chalet opened in 1910, it replaced a small slab hut known as 'Manfield's Chalet'. It was a humble but much respected destination for adventurous tourists to Victoria's rugged alpine region.

Among the many guides to Mount Buffalo in those earlier days, Alice Manfield became legendary. Known as Guide Alice, she would spend months at a time on the plateau, long before a road made access easy.

She was entranced by the spirit of the plateau, and wrote a book about the lyrebirds there. Her role, as she understood it, was to help visitors share her enchantment of the plateau, to help them learn of the many wonders of the place.

The chalet building has sat empty for many years now, propped up by an expensive maintenance program. A few years ago a local consortium, the 'Mount Buffalo Destination Advisory Group' came up with an option to save the building. But their ambitious Vision for Mount Buffalo included a privately funded and operated spa bath hotel, wedding chapel, shops, bars, and even a rolling skate rink in the vicinity, a 'Gorge Skywalk', and other developments elsewhere on the

plateau at Cresta Valley, Dingo Dell and Lake Catani. All of this would require rezoning of the land, effectively creating an alpine resort complex within the national park.

A state government funded assessment of the 'Vision' was contracted to PricewaterhouseCoopers (PwC) through the Alpine Shire Council. That process was heavily biased in favour of developers (the public consultation was highly selective), but still the only aspects of the 'Vision' that were assessed as viable were a new café in the chalet building, and some 'ecopod' accommodation at Lake Catani. The proposed glass-bottomed Gorge Skywalk would cost \$30 per customer, for the privilege of spoiling everyone else's view of the Buffalo Gorge.

It is not clear where the ecopods would fit in the small parcel of land at the Catani campground. And a café in the chalet would, as the PwC report says, at best act as "a catalyst, and underpin further development of the Mount Buffalo Chalet at a future stage".

So, for all that effort, the chalet issue remains unresolved.

A better solution

Mount Buffalo is probably the best place in Victoria to introduce people to bushwalking, and as Guide Alice was well aware, its multitude of attractions don't need embellishing.

There is an abundance of well sign-posted day walks around the plateau's snow gum woodlands, wild flowered snowgrass plains and huge tumbles of granite boulders. Trained guides are available locally.

Then there's the chalet, the grand but somewhat faded old lady of the plateau. After a decade or two of trying to revamp it as a first-class venue, it might be time to admit it's best suited to school kids and others as an outdoors adventure centre, offering relatively basic accommodation. It could still accommodate a café suitable for all day visitors, and an information/education centre.

It will need government investment, but the long-term contribution to the health and wellbeing of our young could prove invaluable. • PW



PHOTO: PHIL INGAMELLS



PHOTO: HISTORIC PLACES, DELWP

Above: Mount Buffalo National Park is rich with great walks. It doesn't need added 'attractions'.

Left: Guide Alice (on the right, in white, holding the ribbon) at the opening of the road to the Buffalo Plateau in 1908. She was keen for visitors to come to Mount Buffalo, but also keen for its protection. Mount Buffalo had been made a national park in 1898.

The Evolution of Beauty

How Darwin's Forgotten Theory of Mate Choice Shapes the Animal World – and Us

BY RICHARD O. PRUM,
ANCHOR BOOKS, 2017.
448 PAGES, RRP \$29.99

Some books change the way we think. This one makes us wonder why we didn't think a bit harder.

In an intriguingly spun tale, Yale ornithologist Richard Prum takes us back to Charles Darwin's second great tome, *The Descent of Man, and Selection in Relation to Sex*, published towards the end of that great man's life.

Prum tells us (or reminds anyone who might have actually read it), that in that book Darwin amended his original survival of the fittest theory, arguing that there were other more chaotic and disruptive factors also driving evolution.

Prum talks us through a lifetime's field research by him and his colleagues, with a starring role played by a number of species of manakins – small, colourful and energetically exhibitionist South American birds that are to Prum what Galapagos finches were to Darwin.

He shows how female manakins choose to mate not with the strongest and fittest, but the prettiest, the most musical or the most socially co-operative. He is frank about which of his claims are backed by evidence

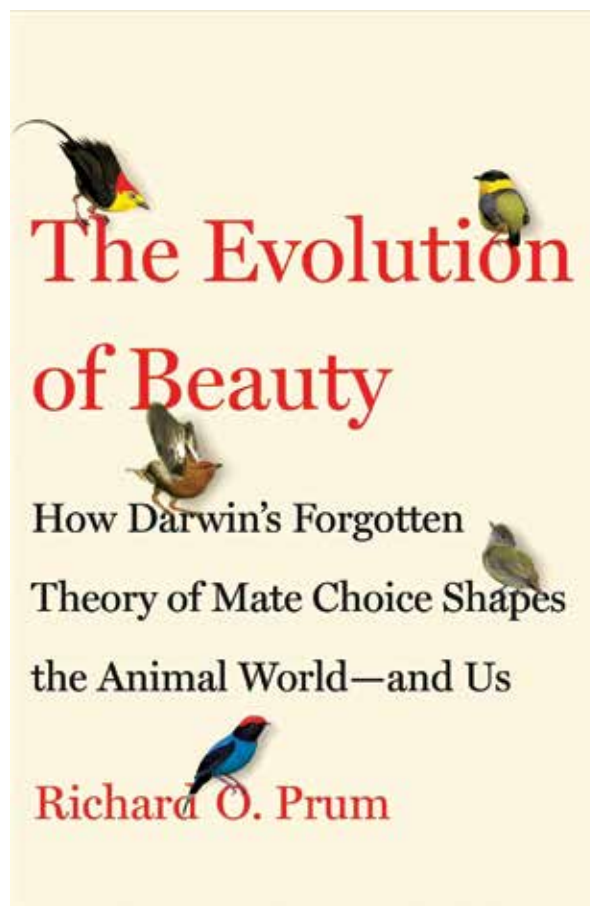
and which are speculation; his neat insight into the behavior of our bower birds is in this latter category.

Prum then takes us on an extraordinary exploration of duck rape. He says the evolution of physical and social means by which female ducks can thwart the passing on of a dominant drake's genes is just one of many strategies in nature that subvert the 'survival of the fittest' paradigm. And the book gets a bit personal as he follows that journey through to our own evolution.

In the final chapter, he chides us for our careful avoidance of anthropomorphic approaches to observations of animal behavior. Animals, he claims, are just as capable of appreciating beauty, and of making sophisticated or fickle mate choices, as we are.

It was Wallace, the co-discoverer of the survival of the fittest theory, who first poured cold water on Darwin's old-age caution, and it seems evolutionary biologists have pretty much sided with Wallace ever since. I'm with Darwin and Prum on this one. • PW

Review by Phil Ingamells



Quiz Answers (from page 24)

1. Great Otway National Park. The snail is called the Otway black snail.
2. Alpine National Park. Mount Bogong is Victoria's highest point at 1,986 metres above sea level.
3. Hattah Kulkyne National Park. This national park in Victoria's north-west is a haven for bird lovers with more than 200 bird species including waterbirds, mallee species and the threatened malleefowl, mallee emu-wren and regent parrot.
4. Point Addis Marine National Park. Bells Beach is located in this national park. Snorkelling and scuba diving opportunities in this national park include near and offshore locations, with weedy seadragon habitat at Ingoldsby Reef.
5. French Island National Park. This national park is in Western Port and has roosting ground for dozens of migratory wader bird species. It is also home to long-nosed potoroos.
6. Lower Glenelg National Park. This park contains many Victorian plant species that are found no further west, and it also marks the most eastern distribution for many plants found in Australia's west.

The family tree

1

Take some time to breathe deeply. You may be breathing in oxygen created by your tree, and it may breathe in the carbon dioxide that you are breathing out.

2

What shapes can you see in the tree? Are there twisted branches, light and shadow patterns, or markings on the trunk?

3

How old do you think the tree is? Is it older or younger than you? Your family members?

4

How many colours and shades are there on the tree?

5

Describe the feel of the bark with as many words as you can.

6

Describe the shape of the leaves with as many words as you can.

7

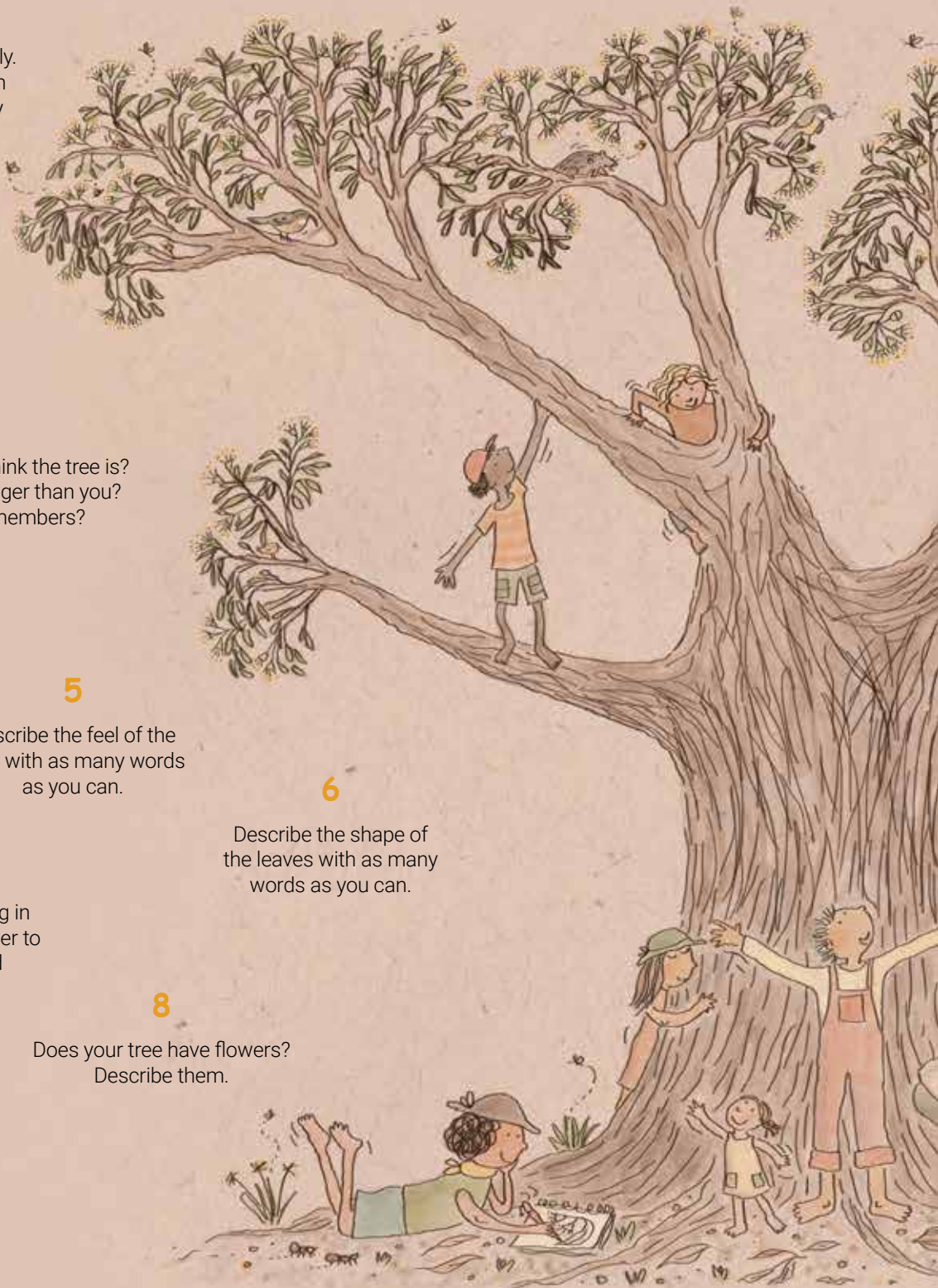
What wildlife could be living in or eating the tree? Remember to look for tiny insects and big creatures.

8

Does your tree have flowers? Describe them.

9

Are there any plants or lichen growing on the tree? Describe them.



This activity is an opportunity for you or your family to meet and get to know a tree.
It could be a tree in your neighbourhood, at a park, your school, or in the bush.

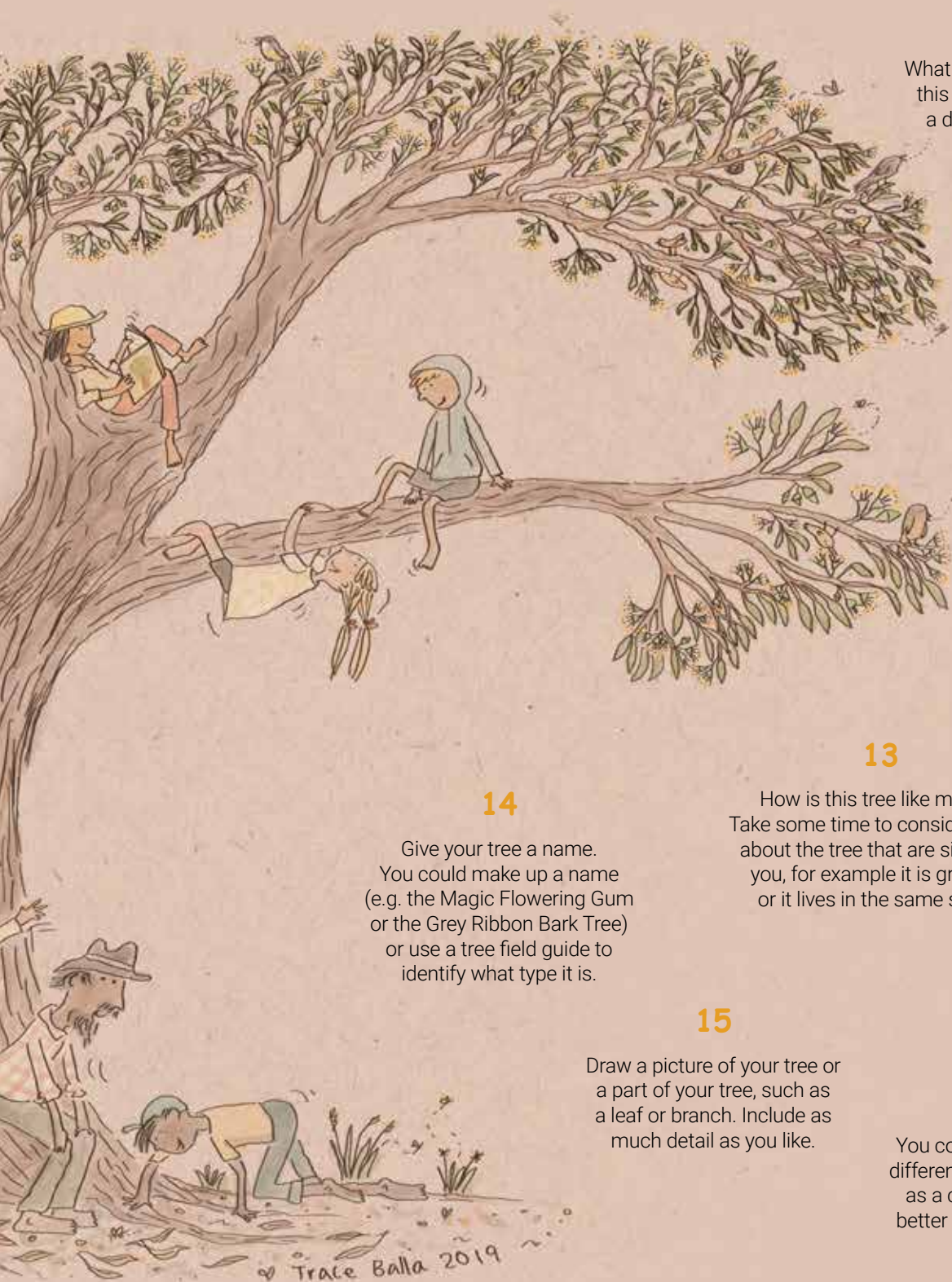
To begin with, choose a tree that you like in a place that works for you or your family.

You can try some or all of the ideas below, or come up with your own ways to get to know your tree.

You can use these ideas as discussion points, record them with a tick, writing, drawing or photos.

The most important things are to connect, explore, discuss, and reflect.

For more Wild Families fun and to join the Wild Families mailing list, visit www.vnpa.org.au/wild-families



10

What sort of environment does this tree live in? For example a dry forest, a school yard, a riverside, a farm?

11

What parts of the tree can you see at your feet?
Are there leaves, fallen branches, or roots poking through the soil?

12

What sorts of things may have happened around this tree over its lifetime? Maybe bushwalkers leaning on it, birds nesting in its branches, children climbing it, or even fire. You may wish to write a creative story about what your tree has experienced.

13

How is this tree like me/us?
Take some time to consider things about the tree that are similar to you, for example it is growing, or it lives in the same street.

14

Give your tree a name.
You could make up a name (e.g. the Magic Flowering Gum or the Grey Ribbon Bark Tree) or use a tree field guide to identify what type it is.

15

Draw a picture of your tree or a part of your tree, such as a leaf or branch. Include as much detail as you like.

16

You could return to your tree at different times of the day or year as a chance to get to know it better or observe any changes.



Please donate today to support action to protect our beaches

Levys Beach,
Belfast Coastal Reserve.

Victorian beaches belong to all of us – not to a powerful and influential industry with privileged connections. Up to 160 racehorses a day are set to pound along a majestic stretch of beach between Warrnambool and Port Fairy.

Commercial racehorse training in the Belfast Coastal Reserve is a risk to wildlife, community safety and cultural heritage.

While the impact may be local, there is a much bigger statewide principal at stake. Public space used for private profit must not be tolerated – especially on our beloved beaches.

Will you take action to protect Victoria's beaches by donating today?

☒ **I will support action to protect our beaches with a tax-deductible gift of:**

☐ \$20 ☐ \$50 ☐ \$100 ☐ \$550 ☐ \$_____

My choice

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Phone _____ Email _____ Date of birth ____ / ____ / ____

Payment method

☐ **Cheque/money order** payable to 'Victorian National Parks Association' is enclosed.

☐ **Credit card** ☐ Visa ☐ MasterCard

Card no ____ / ____ / ____ / ____ Expiry Date ____ / ____

Cardholder name _____ Signature _____

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-for-beaches**

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

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All donations over \$2 are tax-deductible. ABN 34 217 717 593