

PARK WATCH



CARING FOR PARKS – BY THE NUMBERS
BARMAH WETLAND STRATEGIC ACTION PLAN
VICTORIA'S DEER MANAGEMENT STRATEGY
THE NATURAL WONDERS OF WOMBAT FOREST
WESTERN GRASSLAND RESERVES FAILURE
ZOMBIE WESTERN FOREST AGREEMENTS
ADVENTURES IN REEF RECOVERY

JUNE 2019 NO 277



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.

EDITOR

Meg Sobey

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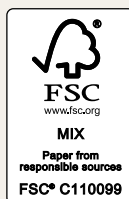
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FRONT COVER

The internationally renowned wetlands of Barmah National Park are threatened by badly timed water regimes, feral horses, and weed invasion. But Parks Victoria has a well-considered plan (see pages 6–9). Photo: Keith Ward/Parks Victoria.

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From the President

Just before going to print with this edition of *Park Watch*, the Australian election has been decided. We look forward to working with the new federal government to achieve significant improvements in nature conservation and the engagement of Australians with nature.

National leadership for the environment matters. National environmental laws matter. And national funding for nature matters. Most of the pre-election commitments for nature were modest. VNPA and other environment groups have called for stronger national leadership and laws to protect nature.

I encourage VNPA supporters to speak with their local federal representatives to let them know your concerns about nature protection and the need for increased federal funding. Funding for environmental work is used to employ people for urgent environmental projects, so it is good for jobs as well as nature.

In the last *Park Watch*, I called for the state of Victoria to invest two–three times more funding into nature conservation, park planning and management. Since then, the Victorian Government has announced \$15 billion for a road to service a small sector of Melbourne. There has also been a myriad of promises for infrastructure spending by all parties in the federal election. Clearly, there is no shortage of money. The construction industry lobby, along with associated building unions, has a strong influence on government priorities. Yet longstanding legal responsibilities to protect nature and manage our parks are ignored and not enforced.

My family recently enjoyed a visit to the Twelve Apostles National Park, a place I have visited since I was a young child. This visit highlighted the enormous pressure this park is being placed under by expanding international tourism. The tourism industry contributes little to the ecological management of our parks, yet appears to want unfettered access.

Another problem with nature and heritage protection is the poor culture around compliance in Victoria. An interesting recent example of this issue was the closure of part of the Grampians–Gariwerd National Park to rock climbers. VNPA encourages responsible use and visitations to parks, but such visits need to be carefully managed as nature and heritage conservation are the primary purposes of these reserves. Consequently, VNPA strongly supports Parks Victoria in enforcing their management plans. We would like to see similar actions taken in all nature reserves in Victoria for a whole raft of activities, to ensure the ecological impacts are appropriately managed. This would need the completion and implementation of management plans for all parks, involving the employment of experienced regional staff. Political will is required to fund, invest and ultimately employ people. Is the Andrews Government up to it?

On a lighter note, my family has enjoyed being in the bush in the Dandenongs, the Mount Stirling region, and near Mount Cole and snorkelling under the wonderful Mornington Pier. As part of a family celebration, we travelled over to Western Australia to visit Cape Range National Park and Ningaloo Marine Park to see the whale sharks and

other amazing marine life. These experiences, along with a visit to an important Indigenous heritage site near Lancefield, continues to inspire my passion for nature conservation and our unique heritage.

As the financial year draws to a close, I would like to take this opportunity to sincerely thank all those who chose to financially support the work of VNPA. As a supporter myself, I invite you to join me in backing VNPA and our campaigns and projects. You can make a tax-deductible donation using the form on the back cover, or by calling the team on (03) 9341 6500 – without the support of financial donors, there would be no VNPA to stand up for parks in Victoria. • PW

Bruce McGregor, VNPA President

“
National leadership
for the environment
matters. National
environmental
laws matter. And
national funding
for nature matters.
”

Annual General Meeting – ADVANCED NOTICE

VNPA's 67th Annual General Meeting will be held on
Tuesday 8 October 2019
at 6.30pm in the
Ground Floor Meeting Room,
60 Leicester Street, Carlton. • PW

New staff member

The VNPA welcomes **Annie Chessells** as our new part time Administrative Assistant. Annie will provide invaluable additional assistance with the organisation's reception, administration, events and database a couple of days a week. You may hear her voice answering VNPA phones or see her face out the front of the office soon! • PW

Nominations for VNPA Council are now open

Nominations for the VNPA Council are now open to members who would like to participate in the governance of the organisation.

The Council play an important role in the life of VNPA – establishing policy guidelines, approving annual budgets and undertaking strategic planning for the association.

Elected councillors are unpaid volunteers and are asked to participate in six Council meetings and relevant committees (usually around two hours each) over the course of the calendar year.

The Annual General Meeting (see left) elects the volunteer Council and includes a president, vice-president, honorary secretary, honorary treasurer and up to nine councillors. To nominate for Council, you must be a current financial member and indicate your intentions by writing to the Executive Director Matt Ruchel, via mattruchel@vnpa.org.au by 5pm on Tuesday 10 September 2019. More information on our Council, please visit www.vnpa.org.au/about

See page 18 for a profile on outgoing Secretary Michael Forster – and throw your hat in the ring for the role! • PW

Bequest acknowledgment

EILEEN MCKEE

VNPA Council and staff are deeply grateful to the late Eileen McKee and her family for the legacy that she chose to leave, by including a gift to VNPA in her Will.

Eileen grew up in East Gippsland, where her love for the bush, its wildflowers, and native animals grew. Later, Eileen was one of the VNPA's first paid staff members, being Office Manager from 1975 to 1987.

Eileen has been remembered as a strong character, with a dry wit and strong convictions. She understood the role and aims of the VNPA and ensured they were adhered to.

Being entrusted with Eileen's legacy is a great responsibility that the VNPA is honoured to carry out. Her gift will enable VNPA to continue in the same role and aims that she fiercely defended.

If you're considering including a gift to support VNPA in your Will, we'd love to hear from you. We would appreciate the opportunity to thank you, and also discuss your priorities. Please contact our Fundraising Manager Emily Clough, on (03) 9341 6501 or emily@vnpa.org.au • PW



PHOTO: JIM MCKEE

DEMAND

1%

FOR PARKS

Caring for parks – by the numbers

NATURE IS FACING UNPRECEDENTED PRESSURE – AND OUR NATIONAL PARKS ARE THE FOUNDATION OF EFFORTS TO PROTECT IT. VNPA EXECUTIVE DIRECTOR **MATT RUCHEL** EXPLAINS THE VALUE OF PARKS AND THE IMPACT OF INSUFFICIENT FUNDING.

National parks and conservation reserves protect areas of significance from some damaging activities; but to be truly effective they also need active management, to combat the multitude of weeds and pest animals such as deer, pigs, foxes, cats, and to manage visitors. The management issues are often complex, so we are advocating for our national parks to be managed by a well-resourced team of the very best scientists and land managers. It's what your great natural heritage needs – and deserves. The numbers illustrate this:

- Victoria's parks network contains 4,728 of the state's 5,145 native plant species (91.9 per cent) and 1,102 of its 1,405 native animal species (78.4 per cent).
- Around 70 per cent of the Victorian coastline is managed as national or state parks, coastal reserves, or marine national parks or sanctuaries. These areas protect against storm damage, flooding and erosion.
- More than one million hectares of our water catchments are located within Victoria's national parks. The market value of water run-off supplied through just nine Victorian national parks is estimated at \$244 million per year.
- The Victorian parks network is a major carbon sink, with at least 270 million tonnes of carbon stored in land-based parks and 850,000 tonnes in marine parks.
- The 50 million visits to national, state and metropolitan parks see tourists spending \$2.1 billion per year, and generating 20,000 jobs. Of course, this must be managed carefully.

So we need to ensure our parks are properly protected and managed.

The key to this is to ensure that there is appropriate funding from the government to do the job.

Currently, Parks Victoria manages 18 per cent of Victoria and approximately five per cent of our marine waters – yet it receives less than 0.5 per cent of state government expenditure.

To put this into context, state health expenditure is about 28 per cent and spending on education about 24 per cent. Of course, we are not questioning the funding of these essential services. This is not a question of 'or' – it is an 'and'.

The Victorian National Parks Association is calling for a doubling in parks funding. Increasing funding for parks to one per cent of state expenditure is essential, and would enable our great natural areas to be properly protected.

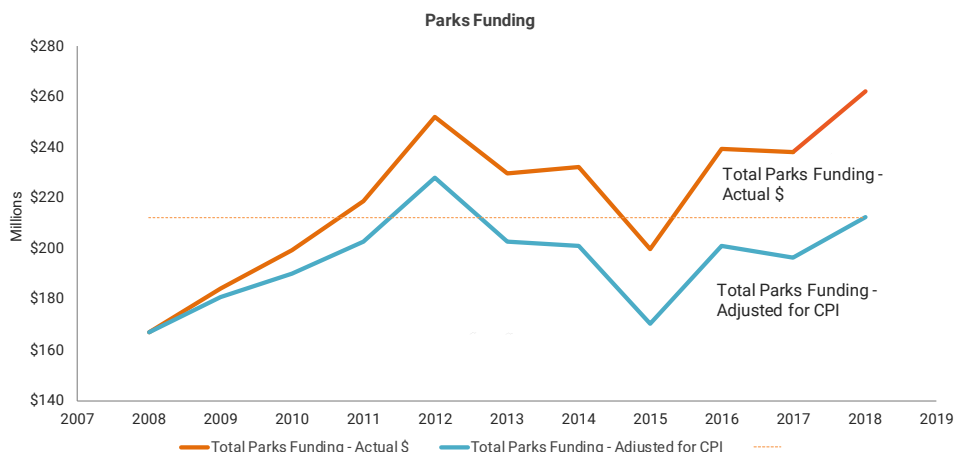
Parks funding has been something of a political football, and while total funding is now slightly higher

than 2012 levels in raw terms, if CPI adjusted it is well below the 2012 peak by around \$40 million per annum. There are increases planned for in the forward estimates of the state budget which, in raw terms, would be close to its 2012 funding peak. A further \$60–70 million in (mostly) infrastructure funding is planned for in the 2019–20 state budget.

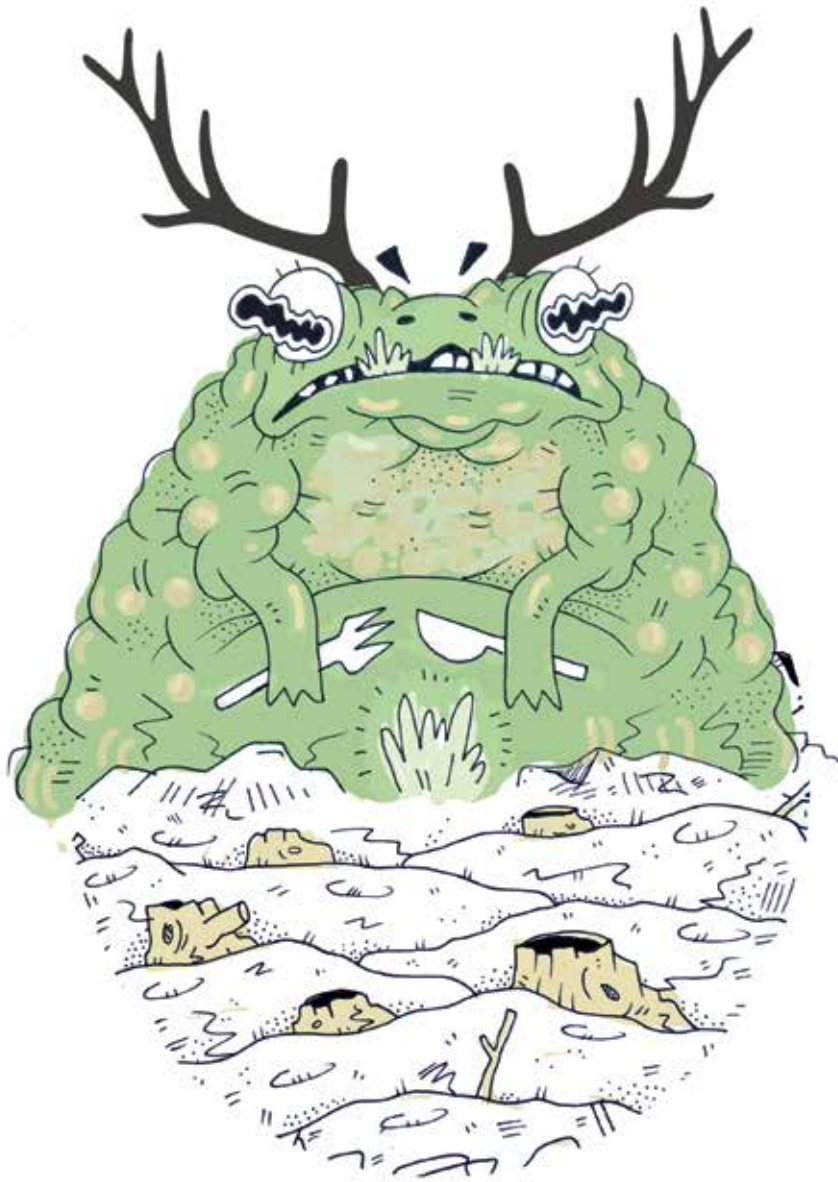
While this all helps, it is insufficient. In the face of climate change and rapid population growth, greater funding is essential. That is why we are calling for parks to get at least one per cent of state expenditure.

If you believe our parks and reserves need – and deserve – at least one per cent of the state budget to properly maintain and protect them, if you want national parks your grandchildren will be proud of, please join with us in demanding '1% for parks'. Please consider making a tax-deductible gift using the form on the back cover of this *Park Watch*, at www.vnpa.org.au/one_percent or by calling the team on (03) 9341 6500. • PW

State government funding for parks, when CPI-adjusted, is still well below what our parks need – and deserve. Join us as we demand one per cent of the state budget for parks.



Source: VNPA with data from Parks Victoria, Annual Reports 2008–2018



Almost every type of native plant is browsed by sambar deer, probably the most voracious of Victoria's four main types of deer. They are effectively Victoria's cane toads, but the draft plan for managing them fails us all.
Illustration by Ash Nel.

Compare the pair

PARKS VICTORIA'S WELL-CONSIDERED DRAFT BARMAH WETLAND STRATEGY OUTCLASSES THE ENVIRONMENT AND RESOURCES DEPARTMENTS' NON-COMMITAL DRAFT DEER STRATEGY BY A MILE, SAYS VNPA PARKS PROTECTION CAMPAIGNER **PHIL INGAMELLS**.

COMPARE THE PAIR



We live in challenging times for nature. Ecological systems are pretty much in decline worldwide, and the resources to manage them are rarely adequate.

But our knowledge of native species, and how natural systems work, is growing at a great rate.

That puts those who frame land management plans and strategies in a really important space. But it's also a tricky space.

They must honour legislative imperatives to maintain species and ecological processes, especially within our national parks and reserves; yet they feel obliged to respond to perceived 'stakeholder' expectations. And then there's an overlying obligation to answer to their political masters and deliver miracles with inadequate resources.

It would, of course, be sensible to have a standard format and set of criteria for land management plans and strategies. But those responsible for developing plans are faced with a stormy sea of options, confusingly ranging from the vague and non-committal to the enlightened and practical.

If there was to be a standard in the future (and there should be) Parks Victoria's draft strategy for protecting Barmah National Park's Ramsar-listed flood plain marshes is a very good model.

The Barmah Wetland Strategic Action Plan

Victoria, though a small Australian state, houses a remarkably diverse range of habitat types, and the Barmah flood plains are among the most interesting of them. Traditionally inundated when snowmelt water from the high country reached a narrow point in the Murray (the 'Barmah choke'), the extensive wetlands support large breeding populations of native waterbirds, fish, turtles, frogs and reptiles.

Barmah National Park has been justifiably called Victoria's Kakadu, but in recent decades the increasingly complex regulation of flows in the Murray River, starting with the construction of the Hume Weir, have confounded plans to maintain the timing and extent of floodwaters. Damaging late summer flows are now the norm.

Most remarkable of the several types of Barmah wetland is the moira grass plains, and Barmah is, or was, by far the most significant site for this type of wetland in the whole Murray Darling Basin.

In the 1930s, decades before Barmah was added to the Ramsar listing of internationally important wetland sites, there were a mighty 4,000 hectares of moira grass. By 1979, at the time of listing, around 1650 hectares remained. According to Parks Victoria's draft strategy, that area had decreased to 182 hectares by 2015 – about five per cent of the 1930 extent. It could disappear completely by 2026, and the unnatural summer flooding is one of the main culprits.

Continued overleaf

The monitoring of horse exclusion areas shows that horses clearly impact the surviving moira grass plains.



Continued from previous page

Flooding isn't the whole problem. Feral horses (and before the park was proclaimed, cattle) have been trashing the wetlands for decades, and there are weed invasions.

Importantly, the Murray Darling Basin's Water Regulator is unlikely to mandate better environmental flows to Barmah unless Victoria also addresses the other impacts on the wetlands, such as horses, pigs, goats and deer, invasive weeds and other threats.

Parks Victoria's draft Strategic Action Plan for the wetlands is an evidence-based document, that addresses all of the threats, and sets deliverable targets. And it is securely founded within the context of Victoria's *National Parks Act 1975*, the Ramsar listing, and the listing of feral horses as a threatening process.

Feral horse management is both the most pressing and the most publicly difficult part of the plan to execute. But Parks Victoria has researched the history of the horses (they're a mixed breed dating largely from the 1950s), established the current size of the population (around 800), and identified the damage they cause (widespread and considerable, to both environmental and cultural sites).

The feral horse population will be reduced to around 100 horses over the three year period, by either rehoming or euthanasing on site, with complete removal mandated after that period. The VNPA would prefer complete removal within the three years (or straight away!), but at least a horse-free Barmah is the eventual goal of the strategy.

By comparison, last year's draft deer management strategy, produced jointly by Victoria's agriculture and environment departments, was not a draft to be emulated.

Victoria's Deer Management Strategy

You might expect that government departments empowered to enact Victoria's environmental laws would come up with a strategy that responded to those imperatives, but last year's draft deer strategy didn't come close. Indeed its lack of ambition was reflected in such aims as "maximising the positives that can be gained from their presence".

That was an odd call, given deer are trashing Victoria's protected areas and listed threatened species from the Mallee to the East Gippsland coast, from the Murray to the Otways. They are having a devastating impact on Victoria's rainforests, our recovering alpine regions, and on hard won and costly revegetation programs across the state.

They are also impacting vineyards, orchards, farms and suburban gardens, and creating a growing hazard on our roads.

VNPA, after consulting a number of well-qualified ecologists and others concerned with the deer population explosion in the state, compiled an open letter to three Victorian ministers variously responsible for aspects of the draft: Ministers Jaclyn Symes (agriculture), Lily D'Ambrosio (environment), and Lisa Neville (water).

The letter was signed by over 90 Landcare, agriculture and environment groups, leading ecologists and a range of other affected organisations and across Victoria. It called for a much strengthened final strategy.



PHOTO: PHIL INGAVELLS

Intact rainforest at Tarra Bulga National Park – but for how long? Rainforest understorey vegetation is highly sensitive to deer browsing, and rainforest floors are now routinely trashed by wallowing deer.

COMPARE THE PAIR

It asked for many things that were not adequately, or at all, addressed in the draft, including (but not only):

- Listing all deer as pest species, in line with state and federal environmental law.
- Setting up a statewide zoning system that prioritised deer control in national parks, other protected areas, and for listed threatened species and communities.
- Removing the draft's notion that some areas should protect deer as a hunting resource.
- Setting evidence-based targets for effective control of deer.
- Allocating adequate recurrent funding for pest control operations on public land.
- Expanding the engagement of professional pest control operators.
- Expanding Parks Victoria's programs using accredited recreational shooters in targeted programs.
- Working collaboratively with other states and the federal government.
- Resourcing a deer-specific targeted baiting strategy for the state.
- Supporting research into new control methods.
- Increasing penalties for illegal hunting, and for translocating live deer.

We accept that deer management is difficult, and that the compromises in the draft were largely the result of pressure from interest groups. However, we believe (and certainly hope) that the final strategy will be a much-changed document. It's unfortunate, though, that a more practical and ambitious draft wasn't available for public comment.

And it's unfortunate that the development of such important documents don't have well-established, clear criteria that they should meet. Both our land management agencies, and the areas they manage, would be much better places if they did.

The following table compares the two recent drafts. • PW



	Draft Strategic Action Plan: Protection of Floodplain Marshes in Barmah National Park and Barmah Forest Ramsar Site (2019-2023) Parks Victoria, 2019	Victoria's Draft Deer Management Strategy The Department of Environment, Land, Water and Planning and the Department of Economic Development, Jobs, Transport and Resources, 2018
Observance of legislation for protected areas, and for threatened species.	✓ There is clear observance of all relevant environmental legislation.	✗ Neither national parks nor listed threatened ecosystems and species are identified as needing priority management action.
Clear statement of ecological values and condition?	✓ Describes the range of ecosystems well.	✗ Lightweight assessments of environmental values and condition.
Clear statement of threats?	✓ Very clear and authoritative statement of threats.	✗ No mention of the considerable impact of deer, other than: "... at least 1080 species of flora and fauna would benefit from deer control efforts across the state."
Puts individual threats in context of other management issues?	✓ Management of threats is well integrated.	✗ No meaningful recognition of climate impacts, and other threatening processes as the context for management actions.
Clear statement of economic and social impacts?	✓ Relevant impacts articulated.	✗ Biased towards the benefits of recreational hunting.
Is the strategy ambitious?	✓ It aims at reversing declines, and eliminating individual threats where possible.	✗ The strategy accepts the ongoing decline of most of Victoria's natural areas, and the current geographic range of deer, even though that includes most of the state.
Does the draft effectively deal with listed threatening processes?	✓	✗ The draft actually seeks to protect deer as a 'resource' for hunters, despite the listing of sambar deer as a threatening process in Victoria.
Sets clear management targets.	✓	✗
Has an agenda that recognises the need for sufficient management resources.	✓ The strategy outlines the need for expertise and resources, and aims at long-term cost-effectiveness.	✗ The strategy seems to avoid actions that might prove costly, even when those actions would be cost-effective in the long-term.

(Public comment on both drafts has closed at the time of going to print.)

Kakadu National Park will receive \$216 million to improve facilities. Kakadu is one of a small handful of Commonwealth national parks. There is no direct federal funding for parks in states, including Victoria.

Nature policy still struggling in federal context

MATT RUCHEL OUTLINES THE COALITION'S FEW AND FAR BETWEEN COMMITMENTS FOR NATURE.

It was widely proclaimed as a 'climate change election' by many national groups and parts of the media – but the results on polling day most likely haven't resolved the national policy paralysis on this critical issue.

However, for the first time in many federal election cycles, broader nature issues at least got a mention.

The release of a global United Nations report less than two weeks out from the election, warning that one million animal and plant species are now threatened with extinction, put nature on the map in the hurly-burly of the pre-election period.

The very next day after the UN report's release, Scott Morrison, in what would seem a wrong-footed move, launched an attack on "lawfare" and "green tape" – precisely the opposite of the UN report's call for more leadership by governments.

Both major parties had already announced environmental policies, with over \$1 billion funding for environmental restoration programs promised. \$1 billion may sound impressive, but out of a \$500 billion-plus federal budget, it's not much in the scheme of things.

The Morrison Government announced a package of funding programs, that while welcome, will not deal with the scale of the threat facing our natural world.

The Coalition's commitments include:

- \$1 billion for the second phase of the National Landcare Program, including the Regional Land Partnerships to restore wetlands, protect threatened species and improve soil health on farms.
- \$100 million Environment Restoration Fund will support practical action on waste and recycling, the protection of rivers, waterways and coasts, and further support for threatened and migratory native species.
- \$10 million under the Environment Restoration Fund to support the creation of feral predator free safe havens for threatened native species; and a commitment to cull two million feral cats by 2020.
- \$15 million through the Environment Restoration Fund to go towards cleaning up important urban waterways, including up to \$2 million to clean up the Yarra River and improve the environmental health of Port Phillip Bay.
- \$6 million from the Environment Restoration Fund will go towards projects to protect and restore the coastal environments of Bells Beach, the Otways and the Great Ocean Road.
- \$22 million in a new Communities Environment Program to give communities new opportunities to protect and care for their local environment. Each federal electorate will receive up to \$150,000 in 2019–20 for community-led projects.

- Some of the other commitments for nature across the country include up to \$216 million to improve facilities in Kakadu National Park; \$1.2 billion investment in the Great Barrier Reef and delivery of the Reef 2050 Plan; and the promise to establish the world's second largest network of marine parks.

The most important Labor Party announcements in the nature space were proposed environmental reform and a new Federal Environmental Protection Agency, and a proposed \$100 million Saving Native Species Fund. The funding for expanded Indigenous ranger programs was welcome, as was work on coasts and urban rivers.

The opportunity for structural regulatory reform is likely to now be put on the back burner, and the rhetoric around removing "green tape" from the Coalition likely flags the agenda for the next term. This could impact on the reform of the Regional Forest Agreements as well as the release of threatened species recovery plans for animals, such as the Leadbeater's possum, which have been stalled for the past few years.

Significant swings in traditionally safe Coalition seats such as Kooyong may send a message that climate and environment are important, but in a federal election once again dominated by tax policy, we still have our work cut out for us to ensure nature gets the attention it needs and deserves.

If you would like to support us in working to advocate for the protection of nature at both state and national levels, please donate www.vnpa.org.au/donate • PW



PHOTO: TERRITORY EXPEDITIONS | FLICKR CC



VNPA EXECUTIVE DIRECTOR **MATT RUCHEL** EXAMINES THE THIRD *VICTORIAN STATE OF THE ENVIRONMENT* REPORT RELEASED IN MARCH 2019 – AND FINDS IT PRESENTS A FAIRLY GRIM PICTURE FOR NATURE IN VICTORIA.

A United Nations report released in May revealed that globally around one million animal and plant species are now threatened with extinction, many within decades – more than ever before in human history. The report warns that the rate of species extinctions is accelerating, and will likely have grave impacts on people around the world. Loss of biodiversity is shown to be not only an environmental issue, but also a developmental, economic, security, social and moral issue as well (see www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report).

Alarming and depressing – but not a new story in Victoria, Australia's most cleared state. The report comes on the back of the latest *Victorian State of the Environment* (SoE) report, which examined 170 indicators of environmental condition (see www.ces.vic.gov.au/reports/state-environment-2018).

Worryingly, only 11 per cent of these indicators were assessed as 'good'. Some 37 per cent were 'fair'; while 52 per cent were definitely problematic, either 'poor' (32 per cent) or 'unknown' (20 per cent).

Only ten per cent of indicators showed 'improving' condition; 30 per cent were 'stable'; and 60 per cent problematic (30 per cent 'deteriorating' and 30 per cent 'unclear').

Conservation of marine ecosystems in protected areas such as our network of marine national parks and sanctuaries is a little brighter, with the status of protected areas across the state listed as 'fair', but with clear condition issues identified in the Gippsland Lakes and East Gippsland inlets.

The outlook was poor for the assessment of the impacts of fisheries production on the marine environment. Only poor-quality data is available to assess changes in stocks, impacts on habitats and interactions with threatened species.

There are still significant gaps in the protection of habitats and species in our current network, which fails to meet international targets. A more comprehensive *State of the Marine*

Environment study is planned as a stand-alone report in 2021.

For an advanced, wealthy and self-proclaimed progressive state like Victoria, I am not sure which is worse: 'deteriorating', 'poor' or 'unknown'. The fact that repeated SoE reports often do not have the data to answer even basic questions about the health and trends in our environment is as big an indictment as continuing to let key natural areas decline.

This is not the fault of the report's authors.

The report is developed by the Commissioner for Environmental Sustainability Victoria. Supported by her small team, the Commissioner, Dr Gillian Sparkes, produced not only the *State of the Environment* report, but also, for the first time, the *State of the Forests* and the *State of the Yarra and its Parklands* reports. The Commissioner's office largely depends on interpreting data from various state government agencies and some academic literature.

Continued overleaf

The indicators used apparently align Victoria's environmental reporting with international frameworks, including the United Nation's System of Environmental Economic Accounts (SEEA) and Sustainable Development Goals (SDGs). However, it is not always clear what the indicators actually indicate.

The aim of the SoE is to provide independent and objective scientific reporting to inform policy-makers, scientists and the wider Victorian public on the state of the state's natural environment. According to the *Commissioner for Environmental Sustainability Act 2003*, the Commissioner's role is to:

- review and report on the condition of Victoria's environment

- encourage decision-making that facilitates ecologically sustainable development
- enhance knowledge and understanding of issues relating to ecologically sustainable development and the environment, and
- encourage Victorian and local governments to adopt sound environmental practices and procedures.

The Act requires the SoE report to be tabled in parliament, and the Victorian Government to table a response. But the responses are often pedestrian, often agree 'in principle', or are just a rehash of existing programs. This is a structural flaw in how the legislation operates, and it's an indictment of our political culture. A state institution set up to inform the

state of significant problems should not be largely ignored when it makes recommendations for improvements.

The importance of private land conservation

The only glimmer of light was one improving trend – in private land protection – due to the increase in people applying for Trust for Nature conservation covenants to protect bushland on their properties in perpetuity.

One of the strongest recommendations in the 2019 SoE report is for private land conservation.

However, similar recommendations have appeared in both previous SoE reports from 2008 and 2013. See boxes below for a comparison.

The 2008 SoE report recommended “The Victorian Government should urge improved implementation of the Native Vegetation Management Framework at the local government level.” and that “There should be a significant increase in the allocation of funds for land acquisition to ensure that ecologically significant private land can be secured to address gaps in Victoria's reserve system. This could be achieved by making a contribution to the Trust for Nature's Revolving Fund. Funding should also be allocated for ongoing management of private land acquired for conservation purposes.”

The 2013 SoE report recommended “... that the Victorian Government protect native vegetation on public and private land by amending permitted clearing regulations”.

Recommended amendments included:

- recognising the contribution of native vegetation to all ecosystem services
- expanding the tools for clearing application assessments to include ground-truthing at all scales
- a requirement that all applications outline the steps that have been taken to avoid and minimise the extent of native vegetation that is proposed for clearing .

The 2019 SoE report recommends:

“That DELWP improve biodiversity outcomes on private land by accelerating private land conservation. This will require resourcing permanent protection measures that focus on high priority ecosystems and landscapes, and investing in local government capability to enforce the existing Guidelines for the Removal, Destruction or Lopping of Native Vegetation and the Invasive Plants and Animals Policy Framework”.



IMAGE ADAPTED FROM PHOTO BY ELLEN FORSYTH, FLICKR CC

Some elements of these recommendations at left were adopted in the review of the Native Vegetation Clearing Regulations in 2014–2017 – though nowhere near fully.

Despite the recommendations, in general the poor and declining condition of our natural environment has now been a finding of successive SoE reports.

A chief biodiversity scientist

Another of the key 2019 recommendations is the better coordination and application of science, by the appointment of a Chief Biodiversity Scientist. Currently, much of the scientific research undertaken by government agencies and the data collected is poorly coordinated, with one arm of the same department doing something different to another or, often, nothing actually happening at all. Across the whole of state government, the situation is worse.

The 2019 SoE report recommended "That DELWP streamline the governance and coordination of investment in the science and data capability of all government biodiversity programs and improve the coherence and impact of the publicly-funded, scientific endeavour. Further, that DELWP establishes the position of the chief biodiversity scientist to oversee this coordinated effort and provide esteemed counsel to the DELWP Secretary and the Minister for Environment to improve the impact of investment in biodiversity research across the Victorian environment portfolio. Additionally, that DELWP improve biodiversity outcomes on public land by streamlining and coordinating governance arrangements."

This recommendation does not sound exciting, but is profoundly important. If we are really going to respond to the ongoing decline in nature, in the face of unprecedented population growth and increasingly dramatic climate change, the scientific building

blocks must be solid, irrefutable and, most of all, coherent and communicable. Otherwise, all we can look forward to is the ongoing decline in our natural heritage. That's not an acceptable situation.

VNPA's team of nature campaigners are meeting regularly with Victorian Government ministers, their advisors and department officials advocating for protection of nature, including for the SoE recommendations to be adopted in full. This is only possible thanks to the backing of our financial supporters. Join us in campaigning for the protection of nature, the amelioration of structural flaws in legislation, and improved investment in biodiversity research and protection by making a tax-deductible donation today. You can donate using the form on the back cover.

Matt Ruchel, VNPA Executive Director, is a member of the Commissioner for Environmental Sustainability's Reference Group. • PW



Victoria's Western Grassland Reserves failure

PHOTO: IAN PENNA

The proposed Western Grassland Reserves have been used for western agriculture for a long time

IAN PENNA WRITES ABOUT WHAT HASN'T HAPPENED IN THE PAST TEN YEARS.

The Western Grassland Reserves were proposed to protect "the largest remaining concentration of volcanic plains grasslands in Australia and a range of other habitat types, including ephemeral wetlands, waterways, Red Gum swamps, rocky knolls and open grassy woodlands. The reserves will increase the extent of protection of Natural Temperate Grassland of the Victorian Volcanic Plain from two per cent to 20 per cent. The WGR also provides habitat for a large number of State and Commonwealth listed threatened and rare species" (Department of Environment, Land, Water and Planning)

The 'Western Grassland Reserves' (WGR) proposal for the plains west of Melbourne is a serious failure in conservation policy creation and implementation.

Victoria's conservation community needs to redeem what is left of it.

In 2009, the Victorian Government promised the Commonwealth Government it would establish two reserves by 2020 to protect

and enhance the plains' remnant grasslands, and offset grassland destruction by Melbourne's creeping urban sprawl.

Creating the reserves by buying 14,405 hectares of private land, containing 10,091 hectares of endangered 'grasslands', was the centrepiece of commitments made by the state and federal governments through the Melbourne Strategic Assessment (MSA) program conducted under Australia's *Environment Protection and Biodiversity Conservation 1999* (EPBC Act).

Modelling concluded that the greatest conservation benefit would occur by creating the reserves as early as possible. However, to date, Victoria has only bought less than ten per cent of the planned reserves area. And the quality of much of the grasslands has been allowed to seriously degrade through the spread of noxious weeds.

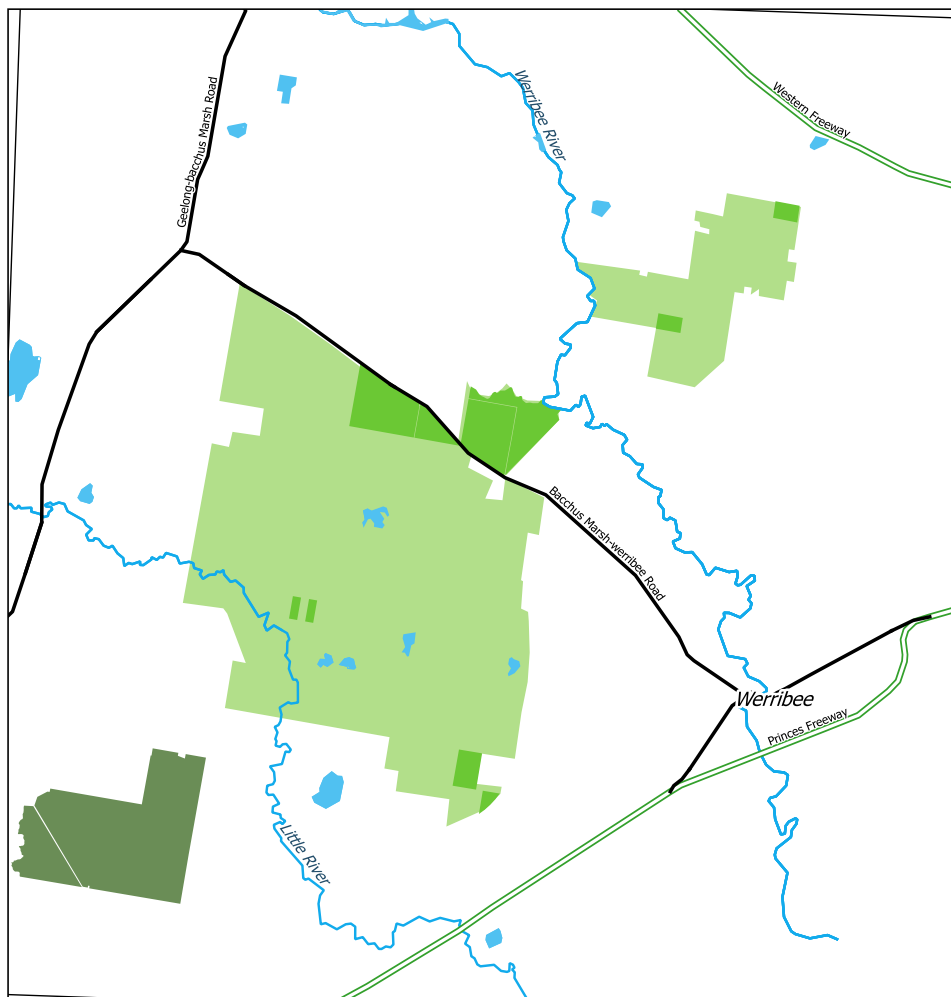
Responsibility for this failure rests with successive state and federal governments, as well as the Victorian and Commonwealth public service

departments that make decisions related to the WGR proposal.

The Commonwealth environment department performed a risk analysis of the MSA program, and in January 2010, advised the then minister, Peter Garrett, before he endorsed the Program, that it "considers that these risks have been adequately minimised ..."

Nevertheless, failure was inherent in the initial WGR proposal because it was a political compromise with a poor funding model and weak enforcement protocols. Conservation groups made these kinds of points during the assessment process, but it is clear they were largely ignored.

The state government's plan for raising funds to purchase, and initially manage, the reserves' land was fundamentally flawed. It would get the money by forcing real estate developers clearing endangered grasslands closer to Melbourne's expanding suburbs to buy theoretical 'offset credits' from the proposed WGR as compensation for this destruction. However, the state government has no direct control



Western Grasslands Reserves

- You Yangs Regional Park
- Reserved land
- Proposed Reserves

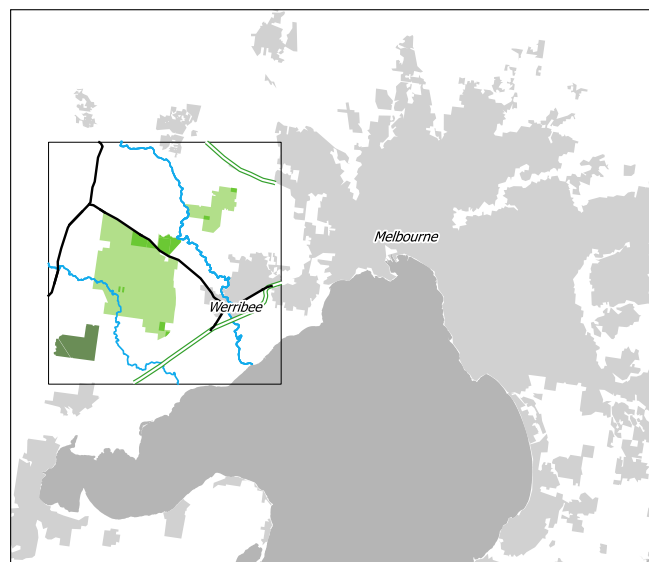


0 5 10 km

over developers' decisions on what available land they will build houses – or when. It could not make developers clear specific grassland areas for its convenience. The state government seriously misjudged the rates of development and rushed the original assessment – only to see development rates drop off.

The reserves proposal began to unravel from 2010, the MSA program's first year, because developers weren't destroying enough remnant grassland for new housing estates, so didn't buy sufficient offsets to generate the state government's desired income. In 2012, Victoria admitted that it was not going to purchase all the land by 2020 because urban expansion was too slow. It asked the Commonwealth to extend the deadline without a specific target date.

A mere week later, the Commonwealth agreed "in principle to extension of the acquisition timeline ...". There was no public involvement or notification or reference to the conservation priority of establishing the reserves quickly. The Commonwealth expected to



Western Grasslands Reserves

- You Yangs Regional Park
- Reserved land
- Proposed Reserves
- Metropolitan areas
- Port Phillip Bay



0 5 10 15 km

work with Victoria "to develop clear and transparent options to extend the acquisition timeframe for the Reserve". Seven years later, this still hasn't happened. In early 2019, a Commonwealth environment department representative stated that "no decision to vary the acquisition timeline has been made".

No detailed economic analysis for the WGR has ever been published. Rough calculations indicate that recent offset prices/habitat destruction fees are probably far too low to purchase all the land and manage it to what might be expected to be a reasonable standard.

Continued overleaf

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Also, the economics of the WGR has been sabotaged by Victoria's failure to comprehensively tackle the area's evolving weed problem; this will add to future management costs. Some land may not be salvageable.

A 2012 survey for the Victorian environment department showed that much of the WGR land was severely infested with *Nassella* weed species, including Serrated Tussock and Chilean needle grass.

Under the 2009 MSA program, Victoria had to prepare an interim management plan that would "introduce a management regime to ensure grassland areas are not degraded in the period prior to formal acquisition of the land for the grassland reserves".

Protective actions that Victoria was meant to take included amending local planning schemes and legislation, making declarations to legally protect grasslands from weeds, undertaking works with landholders and local councils, and conducting on ground surveillance and enforcement. However, the 2016 'Serrated Tussock Seed Storm' that spread serrated tussock seed across proposed WGR land and into surrounding areas challenges Victoria's success in relation to this responsibility.

2010 departmental advice to the federal environment minister stated that if the MSA program "is not implemented as specified or the conservation outcomes are not obtained, approvals given for any actions relating to the non-compliance would become invalid".

However, it also noted that: "There will in most cases be limitations on the ability of the Commonwealth Government to utilise existing enforcement mechanisms under the EPBC Act in instances where the Victorian Government fails to implement or comply with the program as required."

The legal implications of Victoria's failures over the WGR should be clarified by the relevant ministers. The degradation and loss of the WGR EPBC Act-listed grassland are



Much of the Western Grassland Reserves land is severely infested with weed species.

PHOTOS: IAN PENNA

intimately linked to protection and management. Continued state and federal inaction imperils remaining grasslands.

The voluntary Public Acquisition Overlay placed on the land proposed for the WGR had an impact on landowners by creating doubt about the future monetary value of their property. This probably led some to reduce or stop their weed control, while inhibiting innovative grassland management and restoration. An open-ended acquisition plan as desired by the Victorian Government perpetuates doubt over the

grasslands' future. It is the worst possible option.

With so much time passed, if the remnant grasslands across Melbourne's western plains are to have a reasonable chance of being managed to achieve the social and environmental objectives for which the WGR were promoted, then the reserves proposal needs to be publicly scrutinised. An independent publicly funded review with strong community involvement needs to examine all options for creating new ecologically sound and financially secure futures for these endangered grasslands. • PW

OUR TWO FAVOURITE COMMUNITY TREE PLANTING EVENTS,
PROJECT HINDMARSH AND GROW WEST ARE BACK THIS YEAR,
SO ROLL UP YOUR SLEEVES THIS JULY!



PHOTO: COURTESY GROW WEST

Make a difference, plant a tree – or a few thousand!

Project Hindmarsh Planting Weekend

The Hindmarsh Landcare Network's iconic Project Hindmarsh planting weekend is heading back to Nhill this year to plant 13,000 trees, shrubs, herbs and grasses across three properties.

The weekend is **Friday 5 to Sunday 7 July**, with the main planting day on Saturday 6. We will be based at the Nhill Showgrounds due to the temporary closure of Little Desert Lodge pending its sale.

The theme of this year's planting is threatened species. Our site at Glenlee will involve re-establishing listed threatened trees and shrubs into a remnant yellow gum woodland. In particular, we will establish a second population of the endangered gerang gerung wattle, found at only one other spot nearby. At the other woodland spot, we will be replanting and enhancing a grey box – buloke grassy woodland. The third site is a small shelterbelt.

We are welcoming volunteers to join us for our planting weekend extravaganza. This year we again have the local Karen community providing a delicious dinner feast – it's worth coming just for the food!

To register, visit www.hindmarshlandcare.org.au or contact Hindmarsh Local Landcare Facilitator Jonathan Starks on 0429 006 936. We would love to see you there!

Grow West Community Planting Day

Green thumbs are invited help create a biolink by planting 4,000 native plants in Melbourne's west for the annual Grow West Community Planting Day on **Sunday 21 July**.

Over the past 15 years, Grow West has worked with thousands of volunteers and hundreds of landholders, who have helped plant over a million trees in Melbourne's west to rejuvenate and restore local landscapes.

This year's planting will directly benefit the Werribee Gorge State Park and threatened wildlife such as the swift parrot and brush-tailed phascogale through establishing nature corridors on private properties in Ingliston. The properties, totalling 123 hectares, adjoin W. James Whyte Island Reserve (The Island) and are only a stone's throw from the Werribee Gorge State Park.

Property owners, Rick and Nadia and Bill and Airlie, both purchased the properties five years ago and have a clear vision for restoring the landscape.

"We wish to create a forested habitat for half of the property and improve the pasture on the other half using regenerative agriculture for the other half, all with the intention of radically improving our soil carbon levels."

"We love the rugged landscape, native birdlife, views for miles and remote feeling... we'd love to leave it in a better state than when we purchased."

The Grow West Community Planting Day is from 9.30am-4pm, at 155 Falcons Track, Ingliston. Refreshments will be provided (BYO cup and plate to help reduce waste).

For more information and to register visit www.growwest.com.au

VNPA is proud to support both these projects, and grateful to all of our Members who have been involved in both since their beginning. • PW

Are you our next VNPA Council Secretary?

VNPA IS CALLING FOR NOMINATIONS FOR THE SECRETARY ROLE ON COUNCIL. WE TAKE A MOMENT WITH OUTGOING SECRETARY **MICHAEL FORSTER**.



What is your history with VNPA?

I've been a VNPA member a number of years. I've always enjoyed outdoor activities and, like many,

harboured a growing sense that the quality of many of our favourite natural places was at risk.

Before becoming Secretary, I always had an interest in what VNPA had to say on conservation matters – its views on issues seemed very grounded and informed by what needed to be done.

Why did you apply for the role of Secretary?

I wanted to learn more about our parks and reserves, and I thought that it was a role where I might be useful even though I had no obvious background related to VNPA's affairs, such as in community campaigning, work in park agencies or study in a relevant discipline.

Tell us about the experience.

The main task as Secretary is to attend Council, Executive and various subcommittees and support their smooth running by recording, preparing and circulating minutes.

VNPA is very structured in its committee processes, which greatly helps the job of Secretary. But there are a wide range of items that flow through VNPA's Committees. Each item may have its own mix of ecological, community, legal, and budgetary elements to be discussed or actioned.

Not everyone is excited by minutes! At times, the job of minuting a complex discussion and the actions arising can be frustrating. However, any voluntary Committee role has such moments.

I have gained a perspective on conservation in Victoria in different ways from the role. I have sat in on many discussions by experts that range from threats to local flora and fauna, parks funding, feral animals, sponsorships and budgets. It is difficult to summarise what I have learnt in a few words, but they have a direct connection to the national themes of habitat, biodiversity, climate change, and Indigenous ownership. And it has had a big influence on what I read, and where I go, and how I now view the country.

Why would you encourage others to apply for the role?

A lot of my working career was in economic policy and planning work in big bureaucracies, and retirement gave me the time and opportunity to further my interest in conservation policy.

However, I think the Secretary role also offers valuable experience for those at an earlier stage of their careers who may be seeking work in a related discipline. VNPA is a very effective organisation for its limited resources, and is a model for what can be achieved with motivated and experienced staff, a supporter base, strong governance, and a clear strategic purpose. There is a lot you can learn in the humble duties of Secretary in such an organisation!

If you think VNPA Council Secretary might be a role for you, please see more information on our website at www.vnpa.org.au/council • PW

Our Bushwalking and Activities Group Committee also needs new members



There are many fantastic reasons to join the BWAG Committee:

- You have an opportunity to acquire new skills and apply existing skills, and all for a great purpose.
- The BWAG Committee benefits from fresh insight and ideas of new members.
- No prior experience required – just a willingness to contribute to VNPA's 'be part of nature' philosophy.
- Only four meetings a year (with the option to teleconference).

For further information email: vnpubwag.convener@gmail.com

The natural wonders of Wombat Forest

NATUREWATCH COORDINATOR **SERA BLAIR** SHARES THE TREMENDOUS HALFWAY RESULTS OF THE CAUGHT ON CAMERA PROJECT.

One of the reasons we love Wombat Forest and want to see it better protected as a national park is that we have spent a lot of time there enjoying the forest and conducting citizen science.

Between 2012 and 2016 more than 200 volunteers contributed over 2,500 hours to monitor wildlife in Wombat State Forest as part of our NatureWatch citizen science program's Caught on Camera project.

This is part of a ten-year project, and VNPA has just released a report of the findings at the five-year halfway mark.

Caught on Camera has been a significant achievement for the local and wider community. Through the project, we've built and strengthened positive and long-lasting links between the community, scientists and government. The community came together to develop and deliver this project with volunteers from Wombat Forestcare and VNPA's NatureWatch program.

The first five years of this inspiring citizen science effort amassed highly valuable data on 13 native mammal species and 15 native bird species (including threatened species). We also recorded nine introduced mammal species and one introduced bird species.



Citizen scientists set up the motion sensing cameras.

PHOTO: IAN KENINS

Native mammals:

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

Black wallabies were the most commonly detected species, photographed on all 44 research sites, and recorded on more days than any other species. The next most common mammal species, in terms of the number of sites recorded on, were common wombat (36 sites), agile antechinus (31), introduced red fox (28), mountain brushtail possum (26), eastern grey kangaroo (22), and bush rat (18). the two small species

in the group, agile antechinus and bush rat, were recorded on more days at each site than the larger species, reflecting their small home ranges and consequently higher density.

An exciting finding was of brush-tailed phascogales, a threatened species listed under Victoria's *Flora and Fauna Guarantee Act 1988*. This study adds to previous results by Wombat Forestcare to document their distribution in the southern part of the Wombat Forest, whereas they were formerly only known in the drier northern area. Phascogales were caught on camera at three sites, demonstrating this is an area of important habitat for them and showing that they make use of widely distributed less threatened habitats like Foothill Forests.

Continued overleaf



A black wallaby 'Caught on Camera'.

Brush-tailed
Phascogale.



Brush-tailed phascogales: an exciting find of a threatened species!

Capturing images of a threatened brush-tailed phascogale (*Phascogale tapoatafa*) is an incredibly exciting outcome for this project. Being photographed at three sites across the Wombat State Forest demonstrates this is an important habitat area for this species which is listed as threatened under the *Flora and Fauna Guarantee Act 1988*. A few months before these images were taken, Wombat Forestcare picked up the species on some of their cameras – these were the first recordings of the species in this part of the Wombat State Forest since the 1970s.

Continued from previous page

Native birds:

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

The most commonly detected bird species was the superb fairy-wren (20 sites) followed by the grey shrike-thrush (18 sites).

Camera trap monitoring focusses on animals that come to the ground, that are primarily ground-dwelling or ground-foragers. Therefore, no gliders or bats were recorded by the cameras which are located at ground level. However, Wombat Forestcare has observed greater gliders on many sites.

Introduced mammals recorded include:

Red foxes, black rat, house mouse, European rabbit, brown hare, feral goat, sambar deer, cat, dog.

Foxes were common across sites and generally were only photographed a few times in a sequence. They seem to move quickly through an area and may have been aware of the cameras – as evident in many photos showing them looking directly at the cameras.



A wily fox seems to detect it is being photographed.

What the findings mean

This study looked at the presence of native species in relation to the type of ecological vegetation class of the forest, and fire history.

Three of the less common native mammals recorded were only found in Foothills Forest: brush-tailed phascogale, swamp rat and dusky antechinus. Fewer birds were recorded in the two sites containing Grassy/ Heathy Dry Forest than in sites containing Forby Forest or Foothills Forest.

With regards to fire history, there is a marked difference in species presence directly after fire, particularly in the first three years. After that, the effects of fire on flora and fauna are generally subtler as their ecosystem recovers. This research, with sites selected to represent areas burnt at different time intervals, saw the same trend, corroborating the findings of other recent studies.

Moving forward, we will continue this fantastic community effort and continue monitoring the wildlife in the Wombat State Forest. Partnerships that have been forged have enabled the success of this citizen science project, and we hope to continue the effort and build on these for more years. Cameras are currently in the field, rotated by volunteers every three weeks.

The final report on the first five years of this project is available on our website www.vnpa.org.au/programs/caught-on-camera • PW

Central West Investigation Final Report due in June

The final report by the Victorian Environmental Assessment Council (VEAC) is expected at the end of June 2019. The draft report recommended significant areas of Wombat Forest be protected under the *National Parks Act 1975*, and we hope the final will do the same. Once the report is released, it will be tabled in the Victorian Parliament, and the state government has six months to formally respond.

We will need your help and support to ensure the Andrews Government acts on the VEAC recommendations and protects the Wombat Forest and the other special places in central western Victoria. We will keep you updated.

What is Caught on Camera?

Motion-sensing cameras provide an alternative fauna monitoring method to traditional survey techniques (e.g. trapping, spotlighting) that are more labour-intensive and stressful for the animals.

Each March to July more than 45 volunteers set up cameras at up to 20 sites to automatically detect and record species throughout the day and night. In five years, 44 sites have been selected and surveyed across the Wombat State Forest study area.

The project has seen passionate community members, scientists and managers working together to increase our understanding of mammals in Wombat Forest. The project has expanded the skills and knowledge of everyone involved.

The project is a terrific opportunity for engagement – the photographs of animals 'Caught on Camera' in their natural environment can be shared throughout the community as well as to a wider audience online. This can serve as an educational tool and inform the community about the richness of their local environment, fostering a more meaningful relationship between the community and the place in which they live.

“Participation has broadened my knowledge and appreciation of local plants and animals and the habitats in which they live.”

“Community members have a desire for ecological knowledge and their participation allows for the sharing of this knowledge.”

To get involved, visit
www.vnpa.org.au/programs/caught-on-camera

From recent fires to recovery

SERA BLAIR LOOKS AT THE BUSHFIRE IMPACT ON BUNYIP STATE PARK EARLIER THIS YEAR.

On 1 March, dry lightning strikes started bushfires in Bunyip State Park.

It took weeks to be fully contained, with the final size of the burnt area 15,487 hectares (61 per cent of this was public land, 39 per cent private land).

Coming just ten years and 22 days after the Black Saturday bushfires, our thoughts are with the community around the Bunyip State Park who have seen their beautiful home once again transformed by fire and are at the beginning of the recovery process.

VNPA's Caught on Camera project for our NatureWatch program has partnered with Friends of Bunyip State Park since 2012 to monitor wildlife. Using motion-sensor cameras, we have recorded 14 species of native mammals, 52 native bird species and one native reptile (lace monitor). Threatened species recorded include southern brown bandicoot, powerful owl and sooty owl. Seven introduced mammal species were recorded: dog, cat, deer (sambar and fallow), house mouse, rabbit and red fox.

The NatureWatch cameras were not in the field when the fire came through.

Soon after the fires, the Department of Environment, Land, Water and Planning requested and received our Caught on Camera data for southern brown bandicoot in the park. In addition, all of our wildlife sightings have already been uploaded on to the Victorian Biodiversity Atlas. Our citizen science has provided very valuable baseline data of bandicoot populations pre-fire that are critical for understanding if, and how, the species recovers.

Sadly, many animals will have perished in the fires. Most of these species will not return until their habitat has adequately recovered, which may take many years. Our research shows some species, black wallabies and bush rats, can be found in these forests a few years after they were burnt. However, given the introduced species that were in the area, they are likely to experience competition from deer and house

mouse for new vegetation to eat, while being very vulnerable to predation by cats and foxes in the open, burnt forests.

Bunyip State Park has a program of fuel reduction burning as a management tool for reducing the risk of large bushfires. While fuel reduction burning has its place, the environment department's own analysis shows it has limited effectiveness. It will be interesting to see the post-fire analysis for Bunyip.

Moving forward, it is vital to study the recovery of Bunyip State Park. Our Caught on Camera project will be returning in August to continue camera monitoring. Plus we are working with scientists, land managers and the Friends group to increase our monitoring efforts post-fire. In particular, we will be assessing habitat recovery for threatened species and monitoring invasions of introduced species to support Parks Victoria's management efforts in park recovery. • PW



Regulatory relics getting a polish up?

THE CONTROVERSIAL REGIONAL FOREST AGREEMENTS ARE BEING REVIEWED. BUT WILL IT LEAD TO BETTER OUTCOMES FOR VICTORIA'S FORESTS?, **MATT RUCHEL** ASKS.

The Victorian Government, along with the Commonwealth Government, is reviewing the five Regional Forest Agreements (RFAs) in Victoria. To their credit, the Victorian Government, unlike other jurisdictions such as Tasmania and NSW, did not just roll over the existing antiquated RFAs for a further 20 years. Instead, it delayed renewals by two years, and is now seeking to have the renewed agreements in place by December 2019.

There is now a flurry of consultation – workshops, drop-in sessions, forums, panels, and reference groups – being undertaken by the Department of Environment, Land, Water and Planning (DELWP) to review and renew the agreement between the state and Commonwealth and to modernise the broader regulatory systems.

The first change appears to be the establishment of the Office of the Conservation Regulator (OCR) to oversee regulatory functions in conservation and environment. The OCR is being established in response to a scathing independent review of DELWP's regulatory practice and role. The *Independent Review of Timber Harvesting Regulation* found "what is abundantly clear is that the system of policy, legislation and regulation is dated, complex, convoluted – indeed labyrinthine – and difficult to use, and DELWP is neither an effective or respected regulator." It noted that "regulatory practice and capability is weak" and "our consultations have

led us to the view that, VicForests is in a practical sense acting as self-regulator". While none of this is of surprise to conservation groups, the establishment of the OCR at least in the forest space is hopefully a move in the right direction. (See: www2.delwp.vic.gov.au/our-department/regulator)

Consultation activity has included round tables, online survey and a Youth Forest Symposium. An *Independent Consultation Paper* has been released and is open for consultation until 30 June 2019, and there are a series of regional consultation 'drop-in sessions' being undertaken in June right across the state including western Victoria. (Details here: www2.delwp.vic.gov.au/futureforests/get-involved)

A Scientific Advisory Panel has been set up under the auspices of The Royal Society of Victoria, and a Reference Group includes recreation and some conservation groups.

There are comprehensive assessments, but there is little detail on these. There are also a series of legislative amendments as well as proposed changes to the Forest Code of Practice proposed.

Information on the consultation activity is available on the DELWP website here: www2.delwp.vic.gov.au/futureforests.

All this costs money. The Victorian Government has allocated \$35.9 million over four years to fuel the frenzy of forest consultation.

The reported objectives of the Victorian Government are to:

1. Drive strategic, landscape management of multiple forest values.
2. Provide greater opportunity for local communities in the sustainable management of forests.
3. Simplify the RFA framework and increase regulatory certainty.
4. Increase the transparency and durability of forest management.
5. Improve the long-term sustainability and viability of forest-based industries.

It seems clear that at this stage removing the controversial exemption of the forest industry from national environmental protection laws (the *Environment Protection and Biodiversity Conservation Act 1999*), or the *Forests (Wood Pulp Agreement) Act 1996*, which drives the logging for pulp in the Central Highlands, are not yet on the table. It also seems like a lot of our taxpayers' dollars to prop up an industry which continues to decline.

The danger is all we end up doing is polishing something that just continues to drive ecological decline.

Please get involved, including in the public consultation opportunities mentioned above. Background on the RFAs, including VNPA's original submission, on our website: www.vnpa.org.au/regional-forest-agreements • PW



PHOTO: CAFUEGO, FLICKR, CC

Zombie western forests agreements

ZOMBIES JUST DON'T STAY DEAD, OR AT LEAST THAT IS HOW IT IS IN THE MOVIES, LAMENTS **MATT RUCHEL**.

On a serious note, in the financial world, a 'zombie bank' is an insolvent financial institution that only continues to operate thanks to either explicit or implicit government support.

A comparison can be argued for the Western Regional Forest Agreement (RFA): largely state-funded, ecologically damaging and obsolete.

While the bulk of forestry occurs in the east of the state, there is currently an ambition by the Andrews Government to in some way renew the Western RFA. It seems completely unnecessary and disproportionate.

Background on our website: www.vnpa.org.au/regional-forest-agreements

The state government funded logging agency VicForests has proposed commercial logging of around 50–60 of forests and woodlands in the west of Victoria. They want logging of some shape or form in almost 40,000 hectares of what are the most cleared landscapes in the state. This will be ecologically damaging; financially insignificant (some would say reckless); and does not justify some sort of special treatment under an RFA – especially an exemption from national environmental protection laws (see article on previous page).

Financially reckless

According to the 2017–2018 VicForests *Annual Report*:

- Total revenue from Western Forests in 2017–2018 was \$700,000 (yes, less than \$1 million).
- State funding to VicForests managed western "Community Forestry" in 2017-2018 was \$678,000 (yes, that's a surplus of \$22,000 per annum).
- Total volume of timber generated was 21,000 cubic metres, or 1.5 per cent of total state production.

Ecological damaging

Based on our 2017 analysis of proposed logging (*Western Forests and Woodlands at risk*, www.vnpa.org.au/western-forests-at-risk):

- Across western Victorian forests, 70 per cent of the area targeted for logging contains native vegetation types that are either endangered (19 per cent) vulnerable (11 per cent) or depleted (40 per cent).
- In the Horsham Forest Management Area, 54 per cent of the vegetation proposed for logging is endangered.
- More than 20 threatened native animals and 14 threatened native plants were found in or closely adjacent to a third of all proposed logging areas.

Better uses

- There is an active Victorian Environmental Assessment Council (VEAC) investigation in the central west, looking at the future of Wombat, Pyrenees, Wellsford and Mount Cole state forests to fill well-recognised gaps in the representativeness of Victoria's reserve system.
- VEAC has also recommended on two occasions that there are significant gaps in the reserve system in the south-west (between the Grampians and the South Australian border).
- Many of these are popular recreation areas, such as the famous Beeripmo Walk.

Obsolete regulatory relic

- In 2010 the *Independent Review on Progress with Implementation of the Victorian Regional Forest Agreements Final Report* recommended that the Western RFA be cancelled.
- Large parts of the west, such as mid-Murray red gum forests (e.g. parts of Gunbower), aren't even covered by the existing RFA, but still get treated the same.

Following the creation of the Otways National Park, the Bracks government committed to cancelling the Western RFA. But somehow it still lives, and now money is being spent to renew and modernise it.

The Victorian Government should cancel it, or stake it: whatever you need to do to stop zombies coming back to life.

Please write to the Victorian Environment Minister asking for the abolishment of the Western RFA. You can do so on our website: www.vnpa.org.au/cancel-western-rfa • PW

Westernport Bay at risk

VNPA'S **SHANNON HURLEY** GIVES AN UPDATE ON THE BATTLE TO SAVE WESTERNPORT BAY AGAINST INDUSTRIAL DEVELOPMENT.

AGL's proposed 'Crib Point Gas Import Terminal' project could spell disaster for Westernport Bay.

The proposal has concerned statewide environment organisations, local groups, Councils and community for some time.

For the past year, as AGL has made its plans widely known to industrialise an internationally protected Ramsar wetland and environmentally significant marine area, the project has proven to be deeply unpopular with the locals across Westernport and the Mornington Peninsula, and sparked concern from VNPA and Environment Victoria.

If it goes ahead, the project would import gas from across the globe or from interstate (potentially to have been exported from Australia in the first place). Up to 40 additional large ships would transport gas into Westernport Bay, translocating it to the 300-metre long industrial sized ship, known as a Floating Storage and Regasification Unit (FSRU). Permanently moored at Crib Point (approximately seven kilometres from Hastings), the FSRU would be easily in view from the shore. The gas would then be converted and connected for gas distribution to a 60-kilometre long pipeline through prime agricultural land to Pakenham.

There are real fears the project will destroy the environmental and aesthetic values of Westernport Bay, including those for recreation, migratory shorebirds, wetlands, mangroves, seagrass beds and saltmarsh, and key fishing grounds for species such as King George Whiting. Not to mention the massive quantities of climate pollution associated with the project.

The Andrews Government cautiously threw their support behind the project, even though it had not gone through a thorough environmental assessment process.

And so a campaign was launched, and after months of pressure on the ground from local and state groups – including community rallies, letters to Ministers, and media coverage – in October 2018 Victoria's Planning Minister Richard Wynne announced that AGL was required to undertake a full environmental assessment at the state level known as an Environmental Effects Statement (EES). This also requires subsequent sign off at the federal level under the *Environment Protection and Biodiversity Conservation Act 1999*; however, this is packaged into the state process and not a stand-alone assessment.

In the lead up to this decision, Environment Victoria and VNPA had already taken the initiative to commission an expert marine consultant to review AGL's preliminary referral studies. These, to their very core, showed significant flaws and gaps in the risks addressed. Four hundred and fifty million litres of chlorine released into the surrounding seawater creating additional toxins in the marine environment, which had not been considered. Nor had the impacts of noise on shorebirds, or bay-wide impacts from fuel spills or explosions, to point out a few other significant omissions.

In December 2018, VNPA put in a submission to define the scoping requirements that outline the matters that need to be addressed by AGL through the EES process, and in January 2019 the final scoping requirements were released.

Currently, AGL is preparing its final EES studies, which are expected to be on public exhibition in the coming months. This could also include opportunities for a public inquiry to further highlight the risks of the project.

Shortly after that, a final assessment is expected by the Planning Minister on if he is satisfied that AGL has adequately addressed the environmental risks of the project, and also by the Federal Environment Minister. Unfortunately, as history has shown, it is rare to see projects such as these knocked back based on an EES.

If AGL gets the green light through the environmental assessment process, they still have other hurdles to jump through, such as getting a works permit from the Environmental Protection Authority (EPA). If AGL's previous behaviour is anything to go by, we have some work ahead to ensure they don't attempt to shirk their responsibilities. According to recent media, previously AGL tried to change Victoria's State Environment Protection Policy (SEPP), which stops the EPA from granting permits for dumping wastewater in high conservation areas – which under AGL's current project plan is set to occur in Westernport Bay.



Putting the above aside, the justification for the project, including the need for more gas, simply doesn't stack up. Australia has plenty of gas, and is, in fact, the largest exporter of LNG in the world. So the questions remain around how it is used, rather than the need for supply.

To further highlight the unnecessary nature of this project, AGL is in a race to the top with other energy companies – its Crib Point Project is one of several LNG import terminals proposed to contribute to the southeastern gas market. To AGL's

discredit though, their project is the only one proposed in an internationally significant Ramsar wetland.

In the lead up to the federal election, local Flinders candidates voiced their opposition to the project, including re-elected Greg Hunt, most of who attended a packed community hall event run by Save Westernport and Environment Victoria.

We hope the local and statewide pressure will continue to highlight the risky nature of a plan of this caliber on Westernport Bay, and stop such an unnecessary project in its tracks. • PW

TAKE ACTION

Write to the Victorian Planning Minister Richard Wynne to ask him to thoroughly apply EPA's regulation when assessing the impacts of AGL's dirty gas import terminal. A permit to discharge wastewaters into high conservation areas such as Westernport Bay should not occur.

Visit www.vnpa.org.au/save-westernport-bay to send a letter to Planning Minister Richard Wynne.



NATURE
WATCH

Keeping watch

**SERA BLAIR SHINES A
LIGHT ON AN EXCITING
NEW PROJECT IN OUR
NATUREWATCH PROGRAM.**



PHOTO: VIC WILLMS



PHOTO: VIC WILLMS

Above left: Greater glider seen on a stagwatch.
Above right: Mountain brush-tailed possum seen on a spotlighting walk.
Below: Ring-tailed possum seen on a spotlight



PHOTO: VIC WILLMS



PHOTO: SERA BLAIR

A NatureWatch volunteer watching a large, live, stag tree that looks like perfect glider habitat

Have you heard of stagwatching?

'Stags' are large old trees, alive or dead, that are in various stages of decay, allowing them to produce tree-hollows that provide essential nesting places for native possums, gliders, birds, small mammals and reptiles.

Stagwatching involves sitting or lying on the forest floor and looking up to the silhouette of a stag tree against the night's sky to watch for emerging nocturnal animals. Volunteers are trained to be able to differentiate, based on size, behaviour and sounds, between the animals that could potentially be using that area of forest for habitat.

In February VNPA partnered with the Australian National University's (ANU) Conservation and Landscape Ecology group as part of its ongoing stagwatching project. Our NatureWatch volunteers contributed three evenings of stagwatching in Melbourne's Central Highland forests.

This was a rare opportunity to visit the special old growth forests of the O'Shannassay closed water catchment. This forest landscape is

now dominated by young regrowth forests after a long history of timber harvesting and bushfires. Where historically the forests would have been 30-60 per cent old growth, now there is only about one per cent remaining. Mountain ash trees are relatively quick growing, but it takes hundreds of years for them to form tree hollows and provide the complex forest structure needed for the wildlife that are adapted to living in them.

Leading our forest adventures were ANU's forest ecology team of David Blair and Lachie McBurney, who work under the leadership of Professor David Lindenmayer. ANU have around 200 long-term research sites across the Central Highlands forests where they continually monitor wildlife, habitat availability, impacts and ecosystem services. Professor Lindenmayer has been monitoring the possums, gliders, birds and small mammals on these sites for almost 30 years, making this the longest running forest ecology research in Australia. Importantly, this team have conducted extensive research on Leadbeater's possum and the impacts of timber harvesting and bushfires on their habitat availability.

Spotted

Mammals:

Agile antechinus
Bush rat
Dingo
Greater glider
Microbats
Mountain brush-tailed possum
Sugar glider
Sambar deer (feral)

Birds:

Boobook
Brown thornbill
Crimson rosella
Eastern spinebill
Eastern tallow robin
Gang gang cockatoo
Grey fantail
Kookaburra
Lyrebird
Mistletoebird
Pied Currawong
Rufus fantail
Striated thornbill
Wedge-tailed eagle
White-browed scrub-wren
White-throated tree-creeper
Yellow-tailed black cockatoos

Continued overleaf

Continued from previous page

Joining this project, NatureWatch volunteers learnt about the amazing ecology of the mountain ash forests, including their ten years of recovery since the Black Saturday bushfires and their future within the Great Forest National Park.

Each stagwatching evening started with a group gathering at a park along the Yarra River in Warburton. There we enjoyed a briefing from the ANU team on their research, the status of Leadbeater's possum in the wild, the value of protected areas in supporting biodiversity conservation, and the role of forests in climate change mitigation. Then, as a group, we discussed how supporting this research feeds into the community campaign to create the Great Forest National Park to add resilience and long-term planning for protecting biodiversity and ecosystems.

Over the three nights, we visited a different ANU research site in the O'Shannassay catchment. All sites were unburnt, full of large mountain ash trees, had a complex understorey of plants and a structure of woody debris such as logs and branches on the forest floor. At each site, volunteers were given a detailed description of the stagwatching process and tools for identifying the range of possums and gliders that may be present in the forest.

Bug-spray applied and torches in hand, we all followed Dave into the forest. As we negotiated our way through the thick vegetation,

clambering over mossy logs and ducking under majestic tree ferns, we got a real sense of the complexity of these old forests and the habitat needs of the native wildlife that rely on them. Volunteers were placed at a good viewpoint under each stag tree, making ourselves comfortable for the next hour of silence. As the light in the sky began to fade and the volunteers all sat quietly, dispersed across the research site, the dusk chorus of the kookaburras and lyrebirds gave way to the hum of cicadas and persistent mosquitos.

Over the next hour, the forest faded to black, and the first nocturnal creatures appeared from their tree hollows. Mountain brush-tailed possums tended to be noticed first as they noisily clambered about in the trees munching on leaves and grunting to each other. Whereas the greater gliders appearing silently on the highest branches, sat quietly until ready to glide. Many volunteers were lucky enough to see the incredible gliding distances they can achieve!

At the end of the stagwatch, the volunteers convened on the road to enjoy a cup of tea and a biscuit while discussing the results of the stagwatch. All data was recorded by the ANU team, and then they led us on a spotlighting walk along the road to see what other wildlife was near the research site. Most volunteers were able to see greater gliders, mountain brush-tailed possums and ring-tail possums.

Over the three occasions, we recorded eight mammals and 17 bird species during the stagwatches, spotlighting walks, or driving through the forest. ANU will analyse these results that will form part of their collective knowledge that they provide to forest managers to enable them to make informed decisions about forest conservation.

Volunteer response for this new project was fantastic – 54 people contributed over 346 hours of citizen science support to this research. Many volunteers travelled large distances to participate, and some even stayed in the area to explore further the following day. It was inspiring to see so many people experiencing these amazing forests for the first time and really connect with the value of having areas of our forests protected.

Next year we will be extending the stagwatching program to cover 10-12 evenings, including some extended days where we tour the forest first, visiting areas of different management, stages of post-fire recovery and threatened species habitat, while discussing the importance of the Great Forest National Park.

I hope you will be able to join us. Please contact me at sera@vnpa.org.au if you would like more information on the ANU research, the Great Forest National Park campaign or to register your interest in the 2019/20 stagwatching season. You can also sign up at www.vnpa.org.au/naturewatch • PW



PHOTO: MATT TOMKIN

“

Thank you for organising the stag watch evening with the ANU. I found it extremely interesting to see the structure of unlogged ash forest and note how different it is from logged forest. Seeing the different layers that provide the habitat for life in a more natural ecosystem is allowing me to look at the bush around home from a new perspective. As I will not be around to see it, I can only hope that governments now, and to come, have the courage to take the advice of scientists and allow our forests to recover as much as nature will allow enabling future generations to see some of the majesty which our forests once enjoyed.

JASPER HAILS

”

Tributes



Douglas Phillips

FAREWELL TO A FOREST ADVOCATE

When we look around the state and see our magnificent national parks and natural heritage, we stand on the shoulders of people who stood up for nature.

I write this article in memory of Doug Phillips who died in early March this year – one of those who has made a significant contribution to nature conservation in our state, particularly in the south-west.

The campaign for the protection of the Cobboboonee Forest and the rest of the state forests of the Portland Forest Management Area began in early 1996 after repeated community accounts over many years of the deliberate ringbarking and poisoning of significant numbers of old growth hollow-bearing trees by state government forestry departments.

The Cobboboonee State Forest, of around 27,000 hectares, represents the most westerly occurrence of the Lowland Forest Ecological Vegetation Class; many wetlands and endangered and vulnerable vegetation types; as well as threatened species, including large forest owls, yellow-bellied gliders, small marsupials and a species of skink. The fact that this forest directly adjoins the Lower Glenelg National Park (25,000 hectares) only serves to emphasise the high strategic conservation value of this block of native vegetation.

As Life Member, conservation officer and a key spokesperson for the Portland Field Naturalists' Club, Doug had been

a tireless campaigner for the forests of south-west Victoria from the 1990s, especially creating the Cobboboonee National Park. I first met Doug around 2007 in the final stages of the campaign and talked with him regularly over the next decade. Cobboboonee National Park (18,510 hectares) was finally created on 9 November 2008.

His legacy will not be forgotten, and he will be sorely missed. With the support of the Portland Field Naturalist Club, its many dedicated members and his wife Helen, he was passionate and persistent conservation advocate – he was happy to speak to anybody in government, ministers to backbenchers, but also importantly to keep state and national conservation organisations focused on Victoria's south-west and giving a local grounded perspective. All this campaign work was voluntary.

I remember Doug as smart, strategic and astute, a relentless yet polite lobbyist on things that mattered, thoughtful and tireless, and overall a man who cared deeply about the natural world, especially his local patch.

Our sincere condolences to Doug's family and friends.

Based on remarks made by Matt Ruchel at the memorial service in Portland on 28 March. • PV

Vale Les Smith OAM

Les was involved in the conservation movement for over 60 years. He was a volunteer, member or served on executive committees for a range of organisations, notably the Blackburn and District Tree Preservation Society and Environment Victoria. Les was actively involved in the campaign to save the Little Desert from being subdivided for farming in the late 1960s. Les was a VNPA member since 1963.

Vale Terry Cerini

Terry was an active walker and prolific leader with our Bushwalking and Activities Program. Many of the activities he led were for several day adventures into the high country. He was a VNPA member and on the BWAG committee, as well as being a volunteer with Bush Search and Rescue Victoria.

HOW WELL DO YOU KNOW VICTORIA'S MARINE PLANTS AND ALGAE?

- 1 This flowering plant grows only in the sandy muddy bottoms, rocky reefs and tide pools of southern Australia. Its seedlings have a grappling hook-shape to help them attach to a surface. In certain places like Flinders Marine Park, you may see weedy seadragons drifting gently through beds of this wiry, branching monocot.
- 2 The largest canopy-forming algae in Victoria (and the world), this species grows tall on rocky reefs from eight metres and deeper. It has long, string-like stalks with many leafy blades, and a gas bladder at the base of each blade to help lift it towards the surface. Forests created by this algae support many species of fish and invertebrates, but warming waters have led to large scale loss of this species on our temperate coasts.
- 3 This grass-green algae is found in shallow waters up to five metres deep, and is a common sight at the low tide line and in rockpools. With fronds that grow around 15 centimetres long and ten centimetres across, it gets its common name from its similarity to a popular salad ingredient.
- 4 With pairs of delicate, oval-shaped translucent green leaves of up to seven centimetres long growing up out of runners buried in sandy, muddy substrates, this angiosperm is mostly found on the western Bellarine coast, in Swan Bay, and the southern end of Western Port.
- 5 A tan to dark brown species of mat forming algae, commonly found on rocky platforms such as those at Ricketts Point Marine Sanctuary. This species grows in chains of bumpy beads (vesicles) and forms important habitat for intertidal invertebrates. It has a rather 'godly' common name.
- 6 This group of red algae forms calcified crusts over rocks, other algae and plants, and on the shells of marine invertebrates. It is generally pink in colour. It is widespread throughout the Australian coastline, growing anywhere from the intertidal down to the edge of the twilight zone. These species form an important association with the common kelp *Ecklonia radiata*.

Answers: see page 39.

Whether you scored 0 or 6 you can always learn more about our marine life by becoming a ReefWatcher! For more information about ReefWatch activities and events see www.vnpa.org.au/reefwatch



To catch an oyster

PHOTO: PETER DEDRICK

OUR REEFWATCH OFFICER **NICOLE MERTENS** SHARES ADVENTURES IN MONITORING SHELLFISH FOR REEF RECOVERY.

A plate retrieval dive at Ricketts Point.

They once provided food and habitat for many reef-dwelling species, cleaned our water, and sheltered our coasts. But within 200 years they were all but lost.

Reefs formed by the native flat oyster (*Ostrea angasi*) previously covered up to 50 per cent of Port Phillip Bay.

But the oysters were fished and dredged to functional extinction by the early 1900s – harvested as a cheap source of nutrition and their shells ground up and used to make lime or build roads.

While the reefs were gone, pockets of oyster populations survived, and now work to restore these lost ecosystems is well underway.

Back in the June 2017 *Park Watch* we wrote about VNPA's marine citizen program ReefWatch's involvement in a project run by The Nature Conservancy's (TNC) to create artificial reefs for shellfish recruitment in the bay. The broader project is yielding positive results, with our own monitoring project, OysterWatch, a vital contribution.

We're continuing to count numbers of juvenile flat oysters and blue mussels (*Mytilus edulis*) growing on settlement plates deployed in coastal waters throughout Port Phillip Bay. Our results will help inform future restoration efforts by locating 'hotspots' for future reef building.

But how does one "watch" for juvenile oysters as they disperse throughout the bay? It has been an evolving process, and one that has involved a lot of effort and ingenuity from dedicated volunteers.

Engineering an oyster – and diver – friendly experiment

OysterWatch's settlement units are PVC plates that act as a surface for juvenile oysters and mussels to attach to. They were originally designed and field tested by Kim Wright of Marine Care Ricketts Point (MCRP), and he's been on hand with technical advice ever since.

Continued overleaf



Clockwise from top left:

1. An early settlement plate design that didn't hold up to rough conditions.
2. Kim Wright diving to inspect one of his settlement unit trials.
3. OysterWatcher AJ Morton and VNPA volunteer Annabel counting and measuring juvenile shellfish after a successful plate retrieval.
4. The final settlement unit design in situ at Blairgowrie Yacht Squadron.

Continued from previous page

"I knew very little about the history of oysters in the bay, but I was interested in becoming involved in the establishment of artificial reefs, and after hearing a talk on the reef restoration project by Chris Gillies (TNC's Marine Manager, Australia), decided that this might offer a good opportunity to do so." Kim says.

So he researched settlement plate design and came up with a prototype. He and fellow MCRP member Peter Dedrick then set about testing his 'plate sandwich' designs in the field, trying to strike a balance between accessibility for divers, and being able to withstand vigorous wave action and storm surges.

"The two main issues in placing the plates were making something that would withstand the conditions, and finding them again," Peter says.

"Our first plates were suspended from the cardinal marker offshore from the Ricketts Point Tea House – we used our kayaks and put a cam strap around the pole and a dive weight on the other end of a rope. The plates were suspended mid water. They did not survive the first storm – although we did find the dive weight later."

After plenty of trial and error, they landed on a design that allowed for durability, visibility and ease of access, and the standard settlement unit used across all OysterWatch sites was born.

Kim is very pragmatic when reflecting on the project so far.

"[One] highlight has been to see that the plates have held up under all conditions experienced. A second, of course, was to see that the plates proved to be a suitable substrate for mussel and oyster larval attachment. A third was that recovery and replacement of the plates proved to be convenient and that we could develop methods to efficiently record the location on each individual plate surface to which attachment had occurred."

Ray Lewis of the Marine Education Science Community Centre and MCRP has supported Kim in the design process, and helps out in various phases of the OysterWatch project.

"I was aware that we were losing oysters, due to over-harvesting in the past and loss of useful habitat," he says. While he worried about their plight and ability to recover, before recent restoration efforts, he felt that there wasn't an avenue to discuss these issues or suggest remedial actions.

On being involved in OysterWatch, Ray looks at the small scale successes as having the potential to influence future funding commitments and expand restoration efforts many times over.

"Even playing a modest role in the process is valued by me, as part of my much wider reach and commitment to our marine environment."

Engaging the 'do-ers'

"We have a lot of scientists already, enough chefs in the kitchen. What we need are 'do-ers', and so we were happily trained up and let loose," says AJ Morton of Dive2U.

He has been a prominent member of the team of divers involved in deploying and collecting settlement plates at many of the project's study sites.

"We've been involved with other ReefWatch projects in the past, like the Great Victorian Fish Count, Sea Slug Census, and receiving their support for Operation Sponge, so once we heard about OysterWatch, we naturally wanted in."

He notes how the diving community was included in discussions around the project design and implementation. With OysterWatch, citizen scientists and volunteers can take part in many ways, from the construction of settlement units to field deployments and counting shellfish settlement rates.

"OysterWatch is a fantastic opportunity for divers and non-divers alike to get involved actively. There is a growing shift in the mentality of our – and the global – diving community towards being proactive and protecting our oceans through marine debris cleanups, changing behaviours and training standards, and taking direct action by participating in projects like OysterWatch.

"Personally, giving back to the ocean is my direct action hit, and I get stuck in where I can. I look for opportunities where I can physically make a difference. As a business

owner operating in the ocean, I feel I have a duty of care to look after it. The same would be expected of those operating in our terrestrial environments through tree planting, path repairs and rubbish collections. What I enjoy just as equally is creating opportunities for people to engage with our ocean too."

The extra volunteers that AJ and other OysterWatchers bring with them to events share that love of the ocean and a desire to do something more meaningful at the same time. When spending long days sampling baby oysters and mussels by the bay, it is inspiring to see our OysterWatchers connecting with interested passers-by and educating them on the once thriving ecosystem that our lost shellfish reefs supported.

"It's one thing to go home feeling content with my day, but to enable that for others is an even better feeling, resulting in an even better outcome for our ocean," AJ says.

"OysterWatch is a perfect example of how we, as divers, can assist with the facilitation of the project but at the same time help open the community's eyes to the wonders of our local waters and encourage them to get involved, educate their children and make positive changes immediately."

"Myself, our Alliance club members, and the local dive community are grateful for organisations like the VNPA not only to get dirty and make a difference, but to enable a format where we can get dirty too. OysterWatch has become an amazing educational tool not only in the diving community but through the filtering down to the next generation. Thank you to Nicole, Kade, ReefWatch and the VNPA crew for doing such outstanding work."

In turn, the ReefWatch team would like to say a huge thank you to our partners, supporters and volunteers in showing a lot of love for these hardworking but often overlooked invertebrate reef-builders, and dedicating the time and resources to helping us track their movements.

If you or your organisation would like to get involved with a new or existing site for settlement plate monitoring, contact Nicole Mertens, ReefWatch Project Officer at nicole@vnpa.org.au or on (03) 9341 6509.

Want to learn more about OysterWatch, including results from the project so far or how you can help us monitor shellfish populations in the bay? Head to www.vnpa.org.au/programs/oyster-watch • PW



PHOTO: RAY LEWIS

Handy OysterWatchers still smiling after a day of assembling settlement units.

Mount Richmond National Park

PHOTO: GRAEME TWEY/FLICKR CC

GEOFF DURHAM VISITS A PARK WITH DEEP INDIGENOUS CULTURAL HISTORY AND REAL BOTANICAL TREASURES.

This is Gunditjmara Country. Whalers and sealers arrived in the early 1800s.

William Dutton, "the most expert whaler on the coast", built a house at Portland in 1829, but was not a permanent resident; that distinction is regarded as belonging to the Henty brothers who arrived in 1834. The Gunditjmara were severely impacted. It wasn't just dispossession, disruption and disease – retribution and massacres undoubtedly occurred. The mount was named after Stephen Henty's son Richmond, born at Portland in 1837.

Mount Richmond, to the Gunditjmara 'Benwerrin', meaning 'Long Hill', is a prominent rounded hump with a summit 277 metres above sea level, about five kilometres inland from Discovery Bay and 18 kilometres north-west of Portland. It is the tuff and scoria cone of an old volcano (eruption ceased over two million years ago) overlain with sand blown in from Discovery Bay.

Mount Richmond National Park is a park created before the establishment of the Land Conservation Council (LCC) in 1971.

In 1957 the first annual report of the National Parks Authority mentioned proposed National Parks including "a sand-heath wildflower region on Mount Richmond, near Portland, which is the only Victorian stronghold of certain wildflower species, in addition to being an outstanding region for wildflowers generally".

As Jane Calder writes in *Parks – Victoria's National and State Parks*: "Mt Richmond's botanical significance had

long been recognised when, in the 1950s, the Portland Field Naturalists Club, (already campaigning vigorously for a Lower Glenelg NP and increasingly alarmed by the scale of clearing in the Portland area) turned their attention to Mt Richmond". The leading proponent for the park was Noel Learmonth. In an article in the 1968 September-November issue of *Victoria's Resources* he wrote '... the area lay peacefully as Crown lands until it floral wealth caught the eyes of two of Portland's field Naturalists who set out to save at least 1000 acres from settlement and destruction'. The other naturalist was local botanist Cliff Beauglehole. They rallied support, including that of VNPA.

In June 1960, when Henry Bolte was Premier, 621 hectares was declared a national park. Noel Learmonth was appointed chairman of a Committee of Management with Fred Davies Hon Secretary and Cliff Beauglehole a committee member. Fred Davies became the park's ranger.

In his 1968 article, Noel Learmonth described the park as "a real botanical treasure" with forests and open heath containing scattered swamps, and over 450 species of native flowering plants, "many of them in a mass display rivalling anything of the kind in the state", with 58 species of orchids. He says just on 100 species of birds had then been listed, and other animals were Forester (eastern grey) kangaroo, rednecked wallaby, possums, gliders, bandicoots and echidna. He does not mention the rarely seen long-nosed potoroo listed as threatened in Victoria.

The first district studied by the LCC was the South Western Study Area. In its 1973



Left and top left: "A real botanical treasure" – sweet bursaria and blackwood wattle in Mount Richmond National Park.

Above: Koalas can be seen along the Benwerrin Nature Walk.

PHOTOS: JULIE BURGHIER, FLICKR CC

Final Recommendations it confirmed Mount Richmond's reservation as a park without classification, referring to its abundant wildflowers. In its 1983 Review Recommendations it said: "Since the Council first investigated this area it has developed the classification system for parks ... Under this system the Mount Richmond area falls most appropriately into the State Park category." Mount Richmond remains a national park. With various additions, it is now 1,733 hectares (4,284 acres).

The management plan for the park was covered by the Parks Victoria 2004 Discovery Bay Parks Management Plan. In 2015, this was replaced by the Ngootyoong Gunditj Ngootyoong Mara South West Management Plan which lists the six seasons of Gunditjmarra Country:

- Jan–April: Big Dry
- April–June: Early Wet
- May–Sept: Big Wet
- Aug–Nov: Flowering Time
- Oct–Dec: Fattening-up Time
- Nov–January: Drying-out Time

Developments over the years have been the erection in 1968/69 of a 25-foot-high steel lookout tower on the summit with 360-degree views of the coast and hinterland. In 1970 water pumped from a spring was stored in a 5000-gallon concrete tank from which it was reticulated to a picnic area near the summit. Forty-four koalas from French Island were released in 1971. In 1975 a RED scheme re-constructed the picnic area and added some small picnic sites nearby. All were supplied with tables, fireplaces and a water supply.

I cannot recall my first of numerous visits, but I do remember the 1985 Easter Great South West Walk when we took the Mount Richmond diversion loop and had lunch at the summit. For this article, I revisited in March this year and was interested in comparing the park now with that described by Noel Learmonth over 50 years ago.

A narrow bitumen road leads to the summit picnic areas where a single-seat drop toilet with a water tank and the usual 'not suitable for drinking' sign have replaced the reticulated water supply. The lookout tower was removed in 2011 and trees block views from the summit. We did the one-hour Benwerrin Nature Walk with a guide sheet and sixteen numbered pegs. We saw two koalas high in brown stringybarks, and a dead one on the track. As we entered the park we saw two rednecked wallabies.

Interesting variations in the vegetation depend on aspect - for example, on sheltered slopes the brown stringybarks are tall and straight, on the exposed south-westerly slopes, where there are views of Discovery Bay, they are short and stunted. There are extensive areas of dense ground cover and patches of the invasive coast wattle. There have been some fuel reduction/ecological burns.

With its selection of short walks and some tracks for car touring, the park is ideal for a day visit. Camping is not permitted.

The impression of my daughter, making her first visit with me in March, was that it was "a pocket-sized delight". We were there in the 'Big Dry' (very dry) season, on an overcast day. Hopefully, there will be a 'Big Wet', and in the 'Flowering Time', August – November, abundant wildflowers. • PW

Splendid Southern Sea Slugs

PHOTO: REBECCA LLOYD

THANKS TO THE HUNDREDS OF IMAGES SENT IN DURING THE MELBOURNE SEA SLUG CENSUS, **NICOLE MERTENS** IS SEEING SEA SLUGS IN HER SLEEP.

This rarely seen *Dendronotus* species wowed our local sea slug expert and proved to him that our citizen scientists can find more than just the “big, pretty ones”!

Over the past six months, I've had the pleasure of sorting through spectacular photos showcasing the weird and wonderful sea slugs (also known as nudibranchs or 'nudis') that live in Victoria's coastal waters. I've also met with many equally colourful individuals who have turned the search into a beloved pastime.

ReefWatch, in partnership with Southern Cross University's National Marine Science Centre, has held three Melbourne Sea Slug Censuses in Port Phillip and Western Port bays to date as part of the broader Sea Slug Census project. Censuses are held around Australia and internationally.

Join me as we 'dive' into what makes this such a successful citizen science project for engaging with our marine environment.

“Divers will only take photos of the big pretty ones.”

When Bob Burn first heard about the Sea Slug Census coming to Melbourne, he was sceptical about the ability of citizen scientists to locate and photograph a representative sample of Victoria's sea slug assemblage. Many southern species are tiny, cryptic and a lot less vibrant than their cousins on the east coast. Bob would know – he may be a builder by trade, but a lifetime spent combing the rocky shores for sea slugs means that he is the foremost expert in Victoria for their identification. When the October 2018 census yielded 75 different species, including one that Bob himself had only ever seen once before, he was pleasantly surprised to find that there were more people out there with his passion for the incredible diversity of Victoria's sea slugs.

Rebecca Lloyd is one of those people. A stalwart of the Melbourne Sea Slug Census, she holds the record for the greatest number of species found by an individual or pair. She located the *Dendronotus* sp. that delighted Bob.

“Nudis have such a diversity of colours, size and shape. I always enjoy seeing a new one and what interesting combination of features it will have,” Rebecca says.

Rebecca's favourite spot to dive for nudibranchs is Boarfish Reef, which she says is often underrated, but “has offered up some amazing gems recently”.

While some sites are well known in the dive community for their great diversity of species, it's been great to see photos from lesser-known sites such as Boarfish Reef. It also helps capture a better representation of the roughly 400 species of sea slug believed to call Victorian waters home.

Nick Shaw, keen snorkeler and sea slug hunter has submitted stunning photos in the last three Melbourne Census events, winning 'Best Photo' twice and even snapping a shot of what is believed to be an entirely new species of *Eubranchus* (pictured).



PHOTO: TING TING LEE

Capturing the shot in the Melbourne Sea Slug Census.



PHOTO: NICK SHAW

Bob Burn suspects Nick Shaw's tiny *Eubranchus* (pictured above) submitted to the April 2018 Melbourne Sea Slug Census is a new species.

"I knew it was a weird one when I saw it!" he says.

"Some people love sport, maybe with a particular interest in footy and cricket. For me, I am passionate about biodiversity, with a particular interest in nudibranchs and orchids. So when I heard about the Census, of course I wanted to be involved.

"You never know what you will find when you are out there, sometimes not much is out there, or it's winter, the water is 12°C, and you get a headache. But it's fun, it's challenging and combines a lot into one thing – outdoors, swimming, animals and photography. You do get weird looks or receive a long pause from people when they ask 'What did you get up to on the weekend?' and you respond with 'I went out looking for nudibranchs'."

One of the best parts of the Census is the storytelling and sharing of experiences, in turn encouraging more people to get out and enjoy what our marine environment has to offer. During the March Census, I found myself at sea slug hotspot Blairgowrie, determined to find *something*. While I didn't even catch a glimpse of the rather conspicuous Verco's nudibranch or short-tailed ceratosomas that call those sponge gardens home, I was treated to an encounter with a stargazer (*Kathetostoma laevis*) – a first for me. It's something to keep in mind for those that have been out during a Census with "nothing" to show for it – even if those sea slugs elude you, you will have surely found dozens of other fascinating fish and invertebrates during your search, and that's part of the fun.

The data on sea slug diversity and location that a simple set of photographs can provide goes towards the Sea Slug Census project's broader efforts to map species richness in Australian waters and beyond. The project has identified range shifts and seasonal variation in many sea slug species, and due to the ease of verifying the images submitted, we can have a relatively high level of confidence in that dataset. A recent paper published by the founders of the Sea Slug Census indicates that citizen scientists record similar species richness during a Census to scientists conducting survey dives. What this means is that the Census is a cost-effective, accurate way to gather a great deal of data across various locations and times, and can be paired with more traditional research methods to help answer a range of questions.

Rebecca's tips for finding nudibranchs

Access local ID resources: it's much easier to find sea slugs if you have an idea of what to look for and where to look (e.g. food sources).

Divers, slow down: So many of our nudibranchs blend in or are super small, and if we go too fast then our eyes don't have time to see them.

Tambja verconis feasting on its favourite food source, the blue bryozoan *Bugula dentata*. Looking for nudi food is a good way to hone in on sea slugs.



PHOTO: IAN SCHOLEY

For ReefWatch's part, we're creating a baseline of data on local Victorian species and comparing what citizen scientists have discovered during a Census with scientific records. We're interested in where and when our sea slugs can be found, so this year we'll be holding Census weekends during every season. The next two Censuses will be held **7-10 June** and **4-7 October**. So if you're looking to brave the cold to experience Victoria's coast in a different way this winter, get details and ReefWatch updates at www.vnpa.org.au/programs/sea-slug-census • PW

WILD FAMILIES

Wild Families get wet



Families loved the opportunity to enjoy Jawbone Marine Sanctuary.

"I had no idea this place was here."

"I didn't know we had such beautiful fish."

"I saw two stingrays and one animal that is both a ray and a shark."

"We'll have to come back here with snorkelling gear."

"This spot is just so beautiful."

THESE WERE JUST SOME OF THE COMMENTS WE HEARD FROM THE MANY SMILING FAMILIES AS THEY EMERGED FROM THE WATER AT JAWBONE MARINE SANCTUARY.

More than 120 people from VNPA's Wild Families program and families invited by Jawbone Marine Care Group came together in March to try snorkelling and rockpool rambling, led by passionate experts.

Jawbone Marine Sanctuary is a marine reserve in Port Phillip Bay, near Williamstown, which protects seagrass beds, mangroves and intertidal rockpools.

Families out for a snorkel led by Dive2U were lucky enough to see

banjo sharks, stingrays, colourful jellyfish, and a huge decorator crab dressed head-to-toe in sponges bouncing along the sandy bottom.

The rockpool ramblers saw some tiny fish waiting for the tide to come back in, hundreds of meat-eating snails sniffing their way through the sand, and many small but colourful sea stars. When we closed our eyes and listened, we could hear the "pop" of limpets suctioning their bodies onto the rocks.

"It was wonderful to have such a large number of families congregate to Jawbone Reserve who shared similar interests, who all enjoy nature and marine biology and who love to spend time with their children to enjoy such activities.

Having a marine biologist to guide the rockpool ramble was a fantastic experience. The kids were incredibly engaged and focused on the various facts about marine life that Dr Nicole enlightened us with. It was wonderful for the kids to meet someone who has made the study of nature and sea life their career."

Nandoor

"Our family feels extremely grateful that natural reserves like Jawbone Marine Sanctuary are on our doorstep and are so well cared for. To spend the day with marine scientists, park rangers and tons of other families to all learn about the natural world first hand was just fantastic. Thanks, Wild Families and VNPA!"

Jeremy



Learning to snorkel together.

Our main measure for the success of the day was the huge smiles, the laughter and infectious enthusiasm for our marine environment of all the adults and kids who were there.

Thank you to Jawbone Marine Sanctuary Care Group for hosting this event with us, and Dive2U for leading the snorkel.

Remember to join the Wild Families mailing list and check out our activity sheets at www.vnpa.org.au/wild-families to hear news of our next activities. • PW

QUIZ ANSWERS

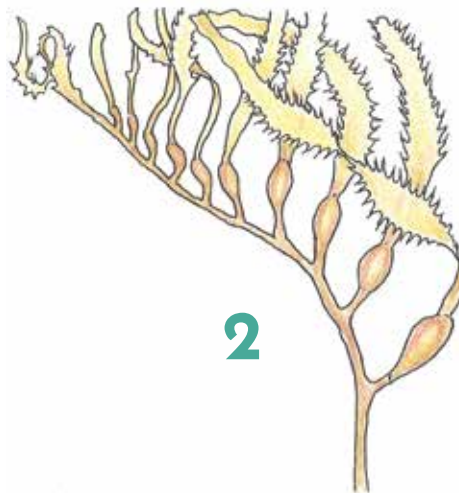
(From page 30)

- 1 Sea Nymph (*Amphibolis antarctica*)
- 2 Giant Kelp (*Macrocystis pyrifera*)
- 3 Sea lettuce (*Ulva* species)
- 4 Paddle weed (*Halophila australis*)
- 5 Neptune's necklace (*Hormosira banksii*)
- 6 Encrusting coralline algae (*Corallinaceae* species)

ILLUSTRATIONS BY NICOLE MERTENS



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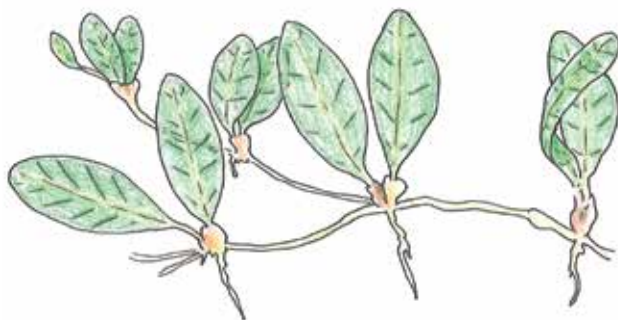


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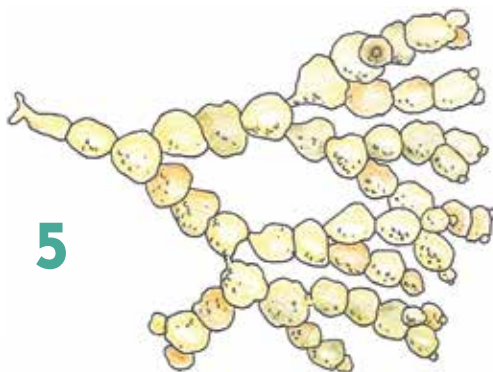
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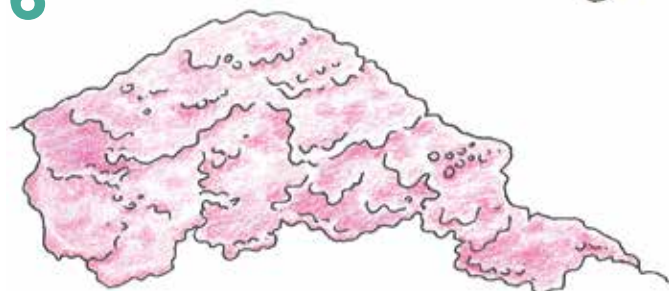
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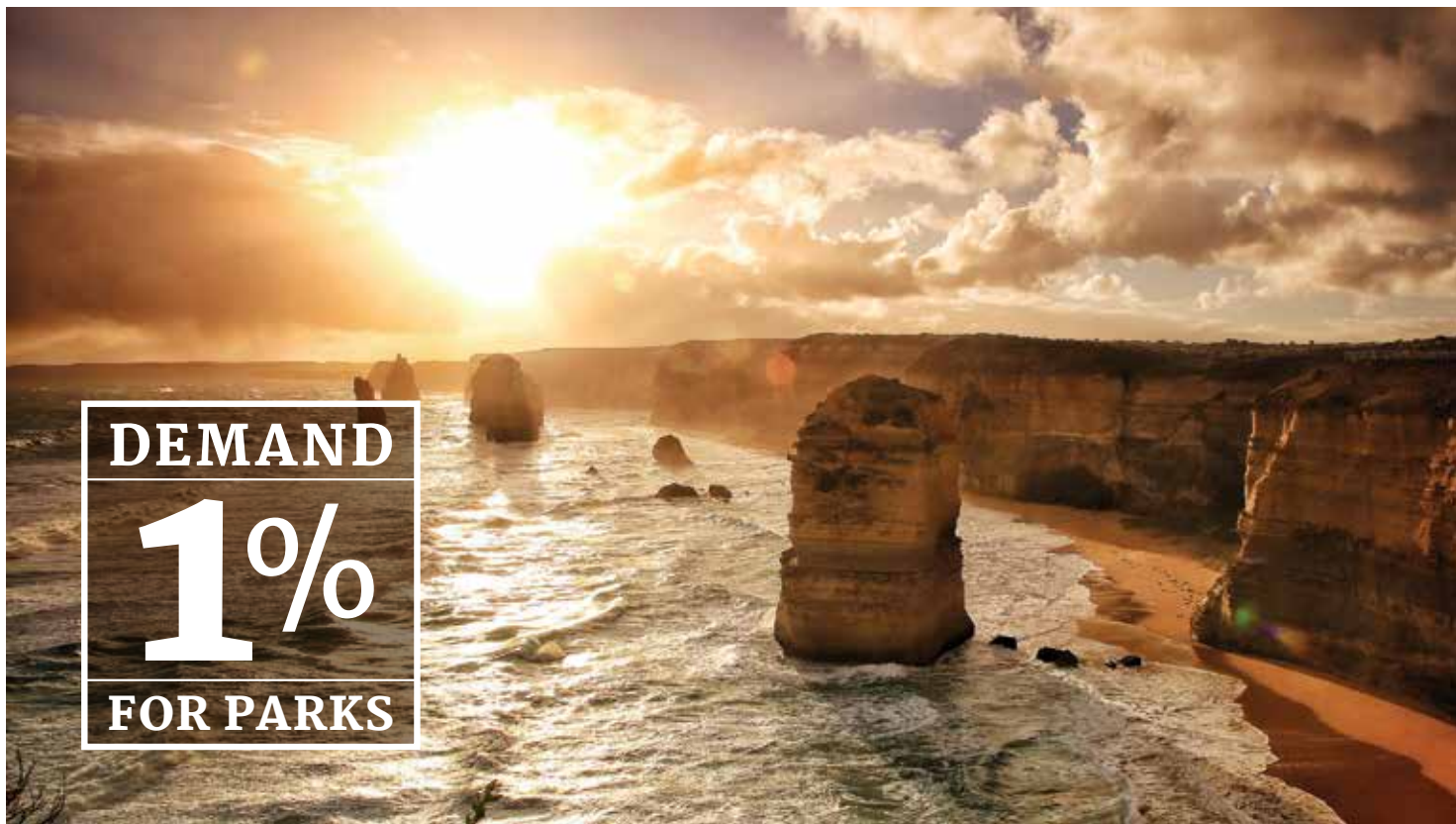
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TWELVE APOSTLES MARINE NATIONAL PARK. PHOTO BY UNSPLASH/JOHN BURNETT.

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

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