

PARK WATCH



For Parks Sake!

Create the central west national parks

IT'S TIME TO CREATE NEW PARKS
SPEAKING OUT FOR WESTERNPORT
THE PROM RENEWED
VICTORIA'S DEER "STRATEGY"
RECOMMENDATIONS FOR FIRE MANAGEMENT
MARINE LIFE OF VICTORIA
WILD FAMILIES SCAVENGER HUNTS

DECEMBER 2020 NO 283



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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Wildlife of Victoria's central west forests, like this Barking Owl, are waiting for their homes to be protected in national parks. See pages 5–9. Photo by Sandy Scheltema.

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Authorised by Matt Ruchel, Executive Director, Victorian National Parks Association.
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The Victorian National Parks Association acknowledges the many First Peoples of the area now known as Victoria, honours their continuing connection to, and caring for, Country, and supports Traditional Owner joint-management of parks and public land for conservation of natural and cultural heritage.

Our office is located on traditional land of the Wurundjeri people of the Kulin Nation. We offer our respect to Elders past, present and future.

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From the President



VNPA Council recently adopted an updated Acknowledgement of Country. A focused working group was tasked with the responsibility of recommending a new statement acknowledging the original custodians of the land we now call Victoria:

The Victorian National Parks Association acknowledges the many First Peoples of the area now known as Victoria, honours their continuing connection to, and caring for, Country, and supports Traditional Owner joint-management of parks and public land for conservation of natural and cultural heritage.

Our office is located on traditional land of the Wurundjeri people of the Kulin Nation. We offer our respect to Elders past, present and future.

For over 20 years VNPA has lent our voice to a range of initiatives that support Aboriginal people to work on and care for Country. We will continue to advise government, the community and our members of the benefits for nature conservation of joint management of national parks and the conservation estate.

While Victoria is now easing the restrictions we faced as a consequence of the COVID-19 pandemic, evidence is mounting about the critical importance of nature to the health and wellbeing of our community. In fact, our recently commissioned polling has continued to demonstrate the strong support of Victorians for national parks, nature protection and establishing new parks in Victoria. (Turn to pages 5–9)

We are hopeful that the state government will adopt all the Victorian Environmental Assessment Council (VEAC) recommendations for the forests of the central west region, and create many new parks as a Christmas present to nature and our communities. After four years of expert consideration by VEAC, the report was delivered over a year ago, and the government was due to respond in February. We are understandably getting frustrated, so we have launched a final

communications campaign push 'For Parks Sake! Create new central west national parks'. Please share on social media and display the sticker prominently!

In recently breaking news, the Victorian Government has announced a number of important and helpful programs including the 'Prom Sanctuary' for Wilsons Promontory National Park, which VNPA has been advocating for some years. We thank the government for these critical investments. Our membership of the Prom Advisory Board is a valuable way for our staff to constantly advocate for critical nature conservation management actions at the Prom, work which continues out of the gaze of the public. (Pages 14–15)

Action is heating up regarding the proposal to build a destructive liquified natural gas (LNG) import terminal in the middle of the internationally important Westernport Bay (pages 10–11). VNPA staff worked hard to wade through the huge piles of reports into various environmental values of Westernport Bay. The local community are dead set against any more industrial development at Westernport and are supported by a range of environment groups, including VNPA. Furthermore, almost daily, there is increasing evidence that it makes no economic sense for Victoria to import LNG. The days of the fairy tale of the importance of gas for Victoria are over. But the environmental importance of Westernport Bay will never be over. Many of you have made a donation to support this important campaign – on behalf of both Council and staff, thank you for your generosity.

Over the past few months, four inquiries have reported into various aspects of the catastrophic bushfires Australia experienced last summer. Our Park Protection Campaigner, the legendary Phil Ingamells, has been analysing and giving thorough input to these inquiries and reports (Pages 17–19). Many of the actions that VNPA has been advocating for since the tragic Black

Saturday fires in 2009 are now being forcefully recommended for adoption. It is unfortunate that a decade has elapsed without implementing many of the proposals first put before the Victorian Royal Commission. We now need to be thankful that 'common sense' is prevailing over adversarial political jockeying.

The Victorian Government has also finally released their Deer Management Plan following widespread community concern about the adverse impact of deer species on our bushland, farmland and peri-urban areas. Unfortunately, it appears that the report has been hacked by conflicting interests and that the small hunting lobby has stymied critical ecological management actions. The Plan appears to be destined to be another dismal failure for not acting decisively when the community is desperate for strong action. When will these invasive and destructive pests be properly managed? (Pages 12–13)

I thank all who attended our Annual General Meeting in October, held for the first time online. There was some apprehension organising the AGM with all the key players located at their homes and the audience across Victoria. Over 150 people attended, many saving considerable travel time. Thanks go to our staff for again helping manage this important governance event. Thank you also to those who sent the many positive messages after the meeting. It is an honour to be re-elected as the VNPA President.

I hope all our supporters and staff are safe and well, especially with the festive season rapidly approaching. I thank everyone who was able to support our fundraising efforts during this difficult year. The VNPA Council and our staff are continually encouraged by our members, supporters and philanthropic partners who enable us to advocate strongly for nature in this wonderful state of Victoria. Thank you. • PW

Bruce McGregor, VNPA President

COVID-19 Update

The Victorian National Parks Association would like to acknowledge the deep impact the COVID-19 pandemic has had on the entire Victorian community in so many different ways. This came to us following a heartbreaking bushfire season, making 2020 a hugely challenging year for all of us.

As Victorians get back out and about and rebuild, we offer you this 'bouquet' of gorgeous Victorian wildflowers. We hope they bring you joy and a reminder of this beautiful state we call our home.

For a full VNPA COVID-19 update including citizen science, education, advocacy, bushwalking and work practices please see www.vnpa.org.au/covid-19 • PW

Bushwalking and activities return soon

We are working hard to get our volunteer bushwalking and activities program back up and running from January. The summer program will be available online and through our email list. You can join the email list at www.vnpa.org.au/bwag-sign-up and check the website for walks and activities www.vnpa.org.au/adventures. We hope to have the printed program back on track for Autumn. • PW



Thank you & Season's Greetings

While this year has been enormously challenging, the support, encouragement and generosity of the Victorian National Parks Association community has been greatly appreciated by the team.

Whether you've made a donation or renewed your membership; if you emailed your MP, joined us online for a webinar, signed a petition or bought a poster – we thank each and every one of you for being part of the VNPA community. You make our work possible and our community meaningful. Thank you.

Our warmest wishes for a safe and nature-filled festive season. • PW

Victorian wildflower photographs by
Jordan Crook, Nicole Mertens and Caitlin Griffith.

A photograph of a woman and a young child walking through a forest. The woman, wearing a mustard-colored duffle coat and red trousers, is walking slightly ahead of the child. The child is wearing a matching mustard-colored duffle coat, a blue and white patterned beanie, and light-colored trousers. They are both smiling and looking towards the camera. The background is filled with tall, slender trees with green foliage, creating a soft, natural setting. The text "Victorians love our parks" is overlaid on a teal, torn-edge banner at the top of the image.

Victorians love our parks

For Parks Sake!



WE NEED TO GET ON WITH CREATING NEW NATIONAL PARKS IN THE CENTRAL WEST, SAYS EXECUTIVE DIRECTOR **MATT RUCHEL**.

There are glimmers of hope for the currently stalled and overdue proposal for the creation of 60,000 hectares of new parks in Victoria's central west.

A decision by the Victorian Government is now eight months overdue of its legal deadline, and replace highlighted text with and over 12 months since the Victorian Environment Assessment Council's (VEAC) final recommendation were first tabled in parliament. And this following a four year expert review and over a decade of campaigning. It's understandable that we are getting frustrated.

A spokesperson for Environment Minister Lily D'Ambrosio said on

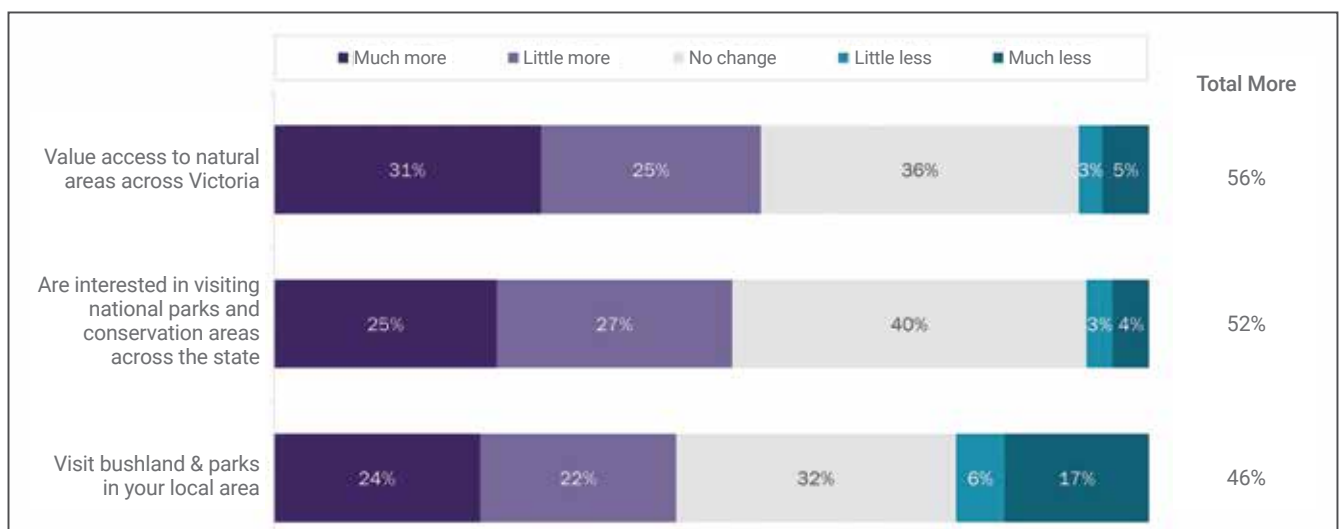
ABC radio in early November that a decision would be made before Christmas. Let's hope it is good gift for Victorians – there is certainly strong community support.

Latest polling of 1,009 Melburnians over the age of 18, commissioned by the Victorian National Parks Association and conducted by Lonergan Research, highlights that the COVID-19 lockdowns across metro Melbourne have enhanced the value of nature and national parks for most.

The results show wide-spread support for new national parks,

and that COVID-19 restrictions have estranged Melbourne nature-lovers from their favourite conservation areas. These results reinforce what we've been hearing across the community over the last few difficult months – people miss the bush. They recognise better than ever that it is simply good for their physical and mental health.

The poll demonstrates the importance for any recovery plans from COVID-19 impacts to consider the broader community benefits of, and access to, nature in and around Melbourne. People want to spend more time in nature, and they want more of Victoria's natural places protected, including in the central west of our state.



Key points from the poll include:

- More than half of Melburnians say COVID-19 restrictions have made them value access to natural areas (56%), and national parks (52%), across Victoria more. Nearly half (46%), of those in Melbourne say the COVID-19 restrictions made them visit bushland and parks in their local area (see graphic on previous page).
- Four in five (81%) Melburnians support the proposals to expand national parks in Victoria around Daylesford, Woodend, Bendigo and Ballarat. One in seven (14%), are undecided, only 4% oppose.
- Two in five (39%) of those in Melbourne say the creation of new national parks in the central west would make them more likely to vote for a political party, while only 4% say it would make them less likely.
- Six in seven (86%) of Melburnians support Victoria having a comprehensive network of national parks and conservation reserves across land and sea, and when asked even with the impact of COVID-19, three quarters (77%) of Melbournians support the Victorian Andrews Government creating new national parks in Victoria. 86% of ALP voters and 66% of Coalition voters support new parks even with COVID-19 impacts.
- Distance is a factor for half of Melburnians, with 51% saying having parks less than 90 minute's drive (such as new central west parks, like Wombat Forest, near Woodend) would make them visit national parks more often.
- Most (58%) Melburnians believe the best use for Victoria's three million hectares of publicly-owned state forests is for the protection of wildlife, trees and nature, only 2% support native forest logging. • PW

Still time to create the central west national parks

WHILE COVID-19 AND BUSHFIRES HAVE UNDOUBTEDLY BEEN MAJOR DISTRACTIONS FOR GOVERNMENT, THE ANDREWS GOVERNMENT WAS ALREADY TRACKING POORLY ON PROTECTED AREA POLICY, WRITES **MATT RUCHEL**.

A detailed analysis that we carried out in November 2017 found Premier Daniel Andrews record on national park and conservation area creation to be the lowest in decades (www.vnpa.org.au/publications/victorian-parks-by-premier). Three years on, it hasn't changed that much.

While there is legislation in the upper house to create small areas of new parks

in East Gippsland and coastal parks along the Bass Coast, there have been no large formal additions to our park estate for almost a decade.

Other states are doing far better. A newly-elected McGowan ALP Government in Western Australia in 2019 announced that it would create five million hectares of new

national parks across their state. Just last month they committed \$25.6 million for the creation and management of new parks. \$41.3 million will also be invested in new and upgraded roads, trails and facilities for some national parks, under the WA Recovery Plan for COVID-19. (See: www.createrangerparks.org.au).

Continued overleaf



Greater Gliders make their homes in tree hollows in the Wombat Forest.

PHOTO: JOSH BOWELL

Continued from previous page

In Queensland, the very recently re-elected Palaszczuk ALP Government went to the polls with a ten-year plan for supporting the growth, better management and sustainability of the state's public protected areas, including expanding national parks and private protected areas. Research by The University of Queensland showed that in 2018, expenditure generated by visitors to Queensland's national parks was estimated between \$419 million and \$2.64 billion, which in turn supported between 1,933 and 11,877 direct jobs and up to 17,241 total jobs for Queensland. (See: www.parks.des.qld.gov.au/management/plans-strategies/protected-area-strategy)

NSW is also getting in on the act. While of different political flavour, NSW Liberal Environment Minister Matt Kean formally gazetted 202,000 hectares of national parks on 30 October 2020, the largest single boost to the estate since 2005. He now plans to double that target with a further 200,000-hectare expansion within two years. (See: www.smh.com.au/environment/conservation/matt-kean-added-202-000ha-of-national-parks-now-he-wants-another-200-000ha-20201030-p56a66.html)

So while other states are leading the charge on new protected areas for their states, what about us? The Victorian Andrews Government has announced an advertising campaign to holiday at home. We know after the first COVID-19 lockdown that many Victorian parks were flooded with people, especially around Melbourne. This not only undermines the experience of getting out into nature, but also creates real environmental and visitor management problems from the overcrowding.

In contrast with Sydney, there is a significant shortage of national parks and reserves within a short drive (90–120 minutes) of metropolitan Melbourne. The protected area network surrounding Sydney consists of eight national parks and reserves. Collectively, they cover one million hectares of land. This far exceeds the formal national and state park network surrounding Melbourne, which is less than 185,000 hectares (a large chunk of which is in closed water catchments in the Yarra Ranges National Park).



PHOTO: FLISSY JOHNSON

Creating new parks in the central west – in the Wombat Forest, less than 90 minutes from Melbourne; the Mount Cole and Pyrenees Ranges forests, which are a relatively easy drive west of Ballarat; and Wellsford Forest right near Bendigo – would all help spread visitor congestion, while also securing the future of these important and special natural places and hundreds of threatened species which live in them.

It all makes a lot of sense in COVID normal world, and could be a key plank of our social recovery. **For Parks Sake – get on with it! • PW**

Take Action

After experiencing a global pandemic that required most Victorians to restrict our movement for the greater good, nature-lovers need no reminder of the restorative powers of the bush.

But our elected representatives do. Let Premier Daniel Andrews and Environment Minister Lily D'Ambrosio know that after the year that was, it is time to finally accept the recommendations and make these parks a reality.

There was already an abundance of reasons to create the new central west national parks. Now there's no excuse not to.

Take action: www.vnpa.org.au/forparks



PHOTO: SANDY SCHELTEMA

Once lost now found

THE GRAMPIANS BITTER-PEA HAS BEEN AN ENIGMATIC SPECIES FOR MANY YEARS. NOW THIS BEAUTIFUL PLANT IS FINALLY UNVEILING SOME OF ITS MYSTERIOUS WAYS AND GAINING THE ATTENTION AND PROTECTION IT DESERVES, WRITES **BRENDAN NUGENT**.



BRENDAN NUGENT

The Grampians Bitter-pea was presumed extinct, until in 2004 it was serendipitously rediscovered.

Most known populations and individual plants occur in the Grampians National Park, though important populations also occur in Langi Ghiran State Park and Mount Cole State Forest (parts currently proposed to be a new national park). Populations typically occur in more mesic, sheltered areas of these landscapes such as eastern slopes, gullies and at higher altitudes.

The Grampians Bitter-pea is listed as vulnerable under both the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and Victorian *Flora and Fauna Guarantee Act 1988*.

It is a large shrub to small tree typically reaching two to four metres in height at maturity, though plants as tall as six metres have been observed. It may be either single or multi-stemmed, and its smooth green-grey leaf-like phyllodes are thick, leathery and vary slightly in shape from narrow elliptic to linear to lanceolate. Young stems and phyllodes also have an attractive bronze-red colour that can persist for several months. Masses of small yellow and red pea flowers are borne towards the ends of branches from October to November. Red fruits which fade to light brown appear around December with small black mottled kidney-shaped seed dispersed in January to February.

More populations of Grampians Bitter-pea have been identified in the

past 15 years since rediscovery, but plant numbers still remain concerningly low, with only a dozen populations and around 200 plants in the wild. Herbarium records seem to suggest *Daviesia laevis* has historically had a low number of populations, but it is also likely numbers have declined since European colonisation from habitat removal, declines in dispersal agents and other factors.

It may also have an important temporal factor in its distribution; where populations may senesce but remain alive in the soil seed bank for decades before appropriate germination stimuli occur and the population re-establishes itself above ground.

Mature plants are killed by fire; however, fire is also an important germination stimulus, and bushfires in the Grampians National Park have aided germination in some areas.

Seed from multiple populations has been collected and stored, including as part of the Millennium Seed Bank at the Royal Botanic Gardens Kew in the UK.

It is worth noting that the Grampians Bitter-pea is a highly ornamental plant, and this horticultural merit could and should be used to help safeguard the species considering the dangerously low number of plants in the wild.

Numerous threats to the species continue and in some cases are increasing. The most serious are degraded and fragmented habitat across its distribution, several aspects

of climate change, altered fire regimes (past and future), intense browsing of young plants by macropods, disturbance from feral pigs at some populations, and native forest logging within the Mount Cole State Forest.

The species also has an unusual relationship with native parrots that involves significant, repeated damage to the canopy each year at several populations. This can be tolerated in years of average rainfall and may even help to spread seed long distances, but will increasingly stress plants as our climate becomes warmer and drier.

During the past decade of monitoring our knowledge of the species has increased considerably, including that it has very high levels of seed viability; an average age of initial reproduction of around 3.5 years (though producing large quantities of seed requires a greater age than many other *Daviesia* species); potential for some mature individuals to produce up to 25,000 seeds annually; and that plants may live longer than 40 years.

Efforts have been made to increase awareness of the species with the hope more populations will be discovered by the public. So please keep an eye out for the Grampians Bitter-pea when visiting Gariwerd/Grampians, Mount Langi and Mount Cole areas in western Victoria, and if you think you have found this beautiful species, please report all possible sightings to local DELWP or Parks Victoria staff – it's quite possible you have found a new population! • PW

Speaking out for Westernport's wildlife

CAMPAIGNER **SHANNON HURLEY** EXPLAINS HOW AGL'S GAS IMPORT FACILITY IS NOT FIT FOR PURPOSE FOR WESTERNPORT BAY.



From 12 October to 17 December we have had our heads submerged in the ten-week-long public hearings where AGL's environmental impact assessment reports have been under scrutiny.

As it should be – they plan to build a massive industrial gas import terminal right in the home of whales, seals, penguins, wetland birds, mangroves and seagrass beds (Read more detail of the proposed project in September *Park Watch*).

It has been a critical period to put the proposed project under the microscope. VNPA, with Environment Victoria, Save Westernport and legal representatives Environmental Justice Australia, along with the Bunurong Land Council Aboriginal Corporation, local councils, government agencies, and other interested parties have had the opportunity to present their expert evidence and ask questions of AGL.

AGL has claimed that they have properly considered the impacts of their project on Westernport's marine biodiversity values.

We have expert evidence on the contrary. From the very start, since AGL's environmental assessment reports have been on display, our expert evidence has shown the failure of AGL to address potentially major concerns in full on the impact to marine biodiversity.

These include the failure to address catastrophic events and threats of explosions, oil/fuel spills, ignoring of wetland birds and many Ramsar values, shortage of scientific backing for many marine biodiversity field studies, and lack of consideration of the full suite of ecosystem impacts from up to 47 kilograms of chlorine discharge in the surrounding water at Crib Point every single day.

Evidence in the public hearings has so far revealed how the potential impacts of the project have been down-played, devaluing the wildlife haven that is Westernport Bay. They have confirmed what we knew all along – the project studies lack scientific rigour and their assessments are not considered sound for environmental decisions and management, especially for an internationally significant Ramsar wetland.

Our team's barristers and others representing local councils and government agencies have helped reveal the grave uncertainties, gaps and risks from the project, including:

- the under-estimation of the impacts of chlorine discharge
- inadequate mitigation measures to protect plankton and fish larvae
- the movement of contaminated sediments

Clockwise from top right:
Westernport Bay is visited by the
endangered Southern Right Whale
during winter.

Phillip Island is famous for its
Little Penguins.

Westernport Bay is a Ramsar listed wetland
– it's an important habitat for both local and
migratory shorebirds.

Australian Fur Seals, like these pups,
sunbathe on the shores of Westernport Bay.



PHOTO: PETER STEWARD, FLICKR CC



PHOTO: MICHAEL SALE / FLICKR



PHOTO: ED DUNENS / FLICKR



PHOTO: A CANVAS OF LIGHT, FLICKR CC

- the lack of proper consideration of ship collisions, and the attendant risk of spills
- failure to address specific impacts, such as those on the Little Penguin colony at nearby Barrallier Island, off French Island.

What is clear is the many uncertainties and risks this project raises are far too great for Westernport Bay.

An internationally recognised and protected Ramsar wetland deserves the most stringent assessment to the highest level of environmental standards possible. So far, AGL has not shown anything like that.

What is promising is the appetite for media to cover the public hearings, with statewide and local media coverage of the hearings in *The Age*, *Australian Financial Review*, *The Australian*, and the Mornington Peninsula news.

The project is extremely unpopular with the Victorian community, who care deeply about our beloved Westernport Bay, and for the locals who have been active stewards – some their entire lives – in caring for their wetland backyard.

The Inquiry and Advisory Committee (IAC), appointed to consider the Environment Effects Statement (EES) and the public hearings, will report to the Minister for Planning, who will make his subsequent decision in early 2021.

We will continue to speak out to ensure they consider how the many uncertainties and risks of this project are far too great to risk Westernport's sensitive and special natural values. • PW

Will you donate to stop AGL destroying Westernport Bay?

Every action and every voice in opposition to AGL's proposed Crib Point gas import terminal is important. When you choose to protest about this facility by making a donation, you give nature a voice.

AGL wants to risk our beautiful bay for a few short-term dollars, using a dodgy environmental analysis. Please donate to show them it's just not on. Show them Victorians won't stand for it. Donate here: www.vnpa.org.au/stop-agl

Deer destroying the Dandenongs

MEGHAN LINDSAY CALLS FOR ACTION ON FERAL DEER BEFORE IT IS TOO LATE.

Damage to the forests by deer.



PHOTO: MEGHAN LINDSAY

The Dandenong Ranges National Park, in the outer eastern suburbs of Melbourne, is an iconic Melbourne park, loved by locals and tourists alike. With incredible cool temperate rainforest gullies, towering forests of Mountain Ash trees, areas of drier foothill forests, and a variety of wildflowers in spring, it is a diverse wonderland to explore.

I moved from the suburbs to the Dandenong Ranges almost five years ago, and I couldn't believe how beautiful it was. How incredibly lucky I felt to have this on my doorstep! Since then, I've walked most of the tracks in the national park (of which there are over 350 kilometres!), worked in the forests to control invasive weeds, and volunteered with local 'Friends of' groups. In that time, I've come to understand the extent to which feral deer are damaging the forests in the Dandenong Ranges.

The Dandenong Ranges is home to plants and animals as iconic as the park itself.

The Superb Lyrebird is one such species – you can't hear someone talk about the Dandenong Ranges without thinking about their impressive calls and superb tails. Not only are Superb Lyrebirds renowned for their impressive ability to mimic other birds of the forest, but they also actually shape the forest with their scratching. A recent study found that lyrebirds move more soil than any other land animal – 155 tonnes per hectare in one year.

Of course, there are also the gigantic Mountain Ash trees, the tallest flowering plant in the world. I frequently stop to stare up at them, struck by just how tall they are. There are Mountain Ash in the Dandenong Ranges that have been measured at almost 87 metres tall.

There are species that have been named after places in the Dandenong Ranges, that occur nowhere else in the world: the Sherbrooke Amphipod, Dandenongs Amphipod, Kallista Flightless Stonefly, Dandenongs Burrowing Crayfish and the Dandenong Wattle. The Dandenong Ranges also provides sanctuary to rare and threatened species including the Powerful Owl, Sooty Owl, Grey Goshawk, Green Scentbark, Slender Tree-fern and Wine-Lipped Spider-Orchid.

Yet right across the Dandenong Ranges National Park, feral deer are wreaking havoc. Over the past 20 years, the damage caused by introduced Sambar and Fallow Deer has exploded. They are destroying the cool temperate rainforest gullies, breeding habitat of the Superb Lyrebird. The deer are eating understorey plants that protect lyrebird nests, opening up and drying out the understorey where they find their food. Other animals and plants are also severely affected. Many native shrubs, ferns and herbs are killed. In some areas, only the tallest tree-ferns remain; all younger ferns within reach of deer have had their luxurious green growth stripped bare, slowly killing them over several years. They are rubbing their antlers on trees to mark their territory and sharpen antlers for the breeding season, ringbarking and killing the sensitive Australian trees that have not evolved to endure such mistreatment. They prefer to rub their antlers on particular species such as the iconic Southern Sassafras, Muttonwood and Cherry Ballart. In many of the creeks throughout the park, you would be lucky to find a Sassafras tree that hasn't been rubbed. Many have already died because of this damage. Deer are also causing severe erosion and making the creeks run turbid, smothering habitat for sensitive aquatic species.

Deer are destroying our Dandenong Ranges National Park. They will cause species to go extinct, if they haven't already. Local volunteers have secured funding to fence a number of individual trees, to save them from being killed by antler rubbing and so preserve a seed source for the future, but this is only a stop-gap measure.

I am heartbroken when I walk through the forest and see more trees killed, more erosion, more damage. I don't want to see these areas completely destroyed in my lifetime.

After two years of waiting, the final Victorian Deer Control Strategy has been released. The strategy recognises the significant impacts of deer on the environment; however, it sets no timeframes on action and falls short of declaring deer as a pest in Victoria. We cannot continue to play the waiting game. We need action. Before it is too late. • PW

Red Deer, once only found in Grampians National Park, are appearing across Victoria.

Victoria's Deer "Strategy"

It has taken two years, but the state government's final strategy to control Victoria's million-strong deer invasion has at last been released. This time the strategy appears to be under the control of the Environment Minister, loosening the control of the Game Management Authority and hunting groups. That's a big improvement from the unpopular earlier draft version, but serious shortcomings remain.

- Bizarrely, these highly-destructive pests remain a protected game species. As a concession, the state's land managers no longer have to apply for permission to cull deer, but the absence of legal pest status means the environment department is not actually obliged to control these animals. (Parks Victoria must control all feral animals on land under the National Parks Act 1975, but controlling deer in state forests and other public land apparently remains optional for the authorities.)
- There are no targets or timelines, or calls for significant resources. The Environment Minister has initially allocated \$1 million for action around Melbourne's north-east borders, but made no commitment to the rest of the state.
- The appendix has a couple of inadequate lists of affected threatened species and communities, focused on East Gippsland. But cool temperate rainforests (see the adjacent article) are among the forgotten communities and species the strategy forgot.
- The strategy lacks ambition, only aiming to protect 'priority' areas. But rainforests, alpine areas, threatened species, wetlands, national parks, vineyards, orchards, and of course and roads, exist across the landscape. A landscape-scale reduction in the deer population is needed.
- The strategy's answer to the rampant illegal relocation of deer populations by irresponsible hunters is a polite education program. Strong penalties and an enforcement plan should be in the mix for this highly problematic practice.

Update: The state government has announced a further (and very welcome) \$18 million dollars for deer control over the next four years. • PW

The Prom renewed

WE'RE THRILLED TO SHARE AND CELEBRATE THE NEWS THAT VICTORIA'S MOST LOVED NATIONAL PARK, WILSONS PROMONTORY, IS TO GET SOME WELL-DESERVED EXTRA CARE.



A \$23 million dollar 'Prom Sanctuary' investment, announced recently by Victorian Environment Minister Lily D'Ambrosio, is a historic step forward in the management of this remarkable national park.

The investment will pay for a predator-proof fence at the Prom's entrance – stretching for 11 kilometres across the Yanakie Isthmus from Corner Inlet in the east to Bass Strait in the west. It will keep foxes, deer, cats and other invasive species from entering the park.

The Prom can then ramp up pest animal control, allowing the eventual re-introduction of species long-missing or at risk of local extinction, such as the New Holland Mouse, Ground Parrots, bandicoots and quolls.

In addition, Parks Victoria will take up a long-term lease of private land at the entrance, allowing construction of a car parking and accommodation, and importantly a research station to accommodate an increasingly science-based management program.

One of many science-based programs Parks Victoria plans for the Prom is the return of the Yanakie Isthmus area to the open grassy woodland it once was.

There is also funding for two short walking tracks, one from Tidal River to Telegraph Saddle, and another linking Whisky Bay to the Tongue Point Track at Darby Saddle.

The Prom has always been staffed by Rangers dedicated to its wellbeing, as have most of Victoria's other great parks. Unfortunately, they've long been accustomed to operating on slim and inadequate budgets. But that need not be the case. Well-resourced and well-advised management does need funds, but not a lot overall and it's far more cost-effective in the long run.

This announcement for the Prom is a tribute to the Prom's management, and to the scientists who have been working with one particularly dedicated Prom staffer on this project for decades.

It's also a hats off to VNPA Members and staff who have long been advocating, and continue to advocate, for the level of management our parks need and deserve. Indeed, one of the first tasks of the VNPA (back in 1952) was to press the government to set up a dedicated park management agency because the Prom, especially, and other parks were falling into ruin. This is a win each of us should be personally very proud of.

It will be important to establish as ambitious ongoing budget for management of the Prom, if we are to take advantage of the Prom Sanctuary project. And we should be rolling out this level of ambition across Victoria's parks estate.

There's hope here. The Minister's Prom announcement was part of a \$474 million package for a range of other programs for managing parks, including more post-fire rehabilitation across Victoria. Unfortunately, this also included some initial funding for the highly contentious Falls to Hotham Alpine Crossing.

We'll be looking in more detail at the whole package in the near future, but generally speaking it's a very welcome investment. (You can also read 'The Prom as a Sanctuary' in the December 2019 *Park Watch*). • PW



STRANGE, YET SPECTACULAR

PHOTO: MATT TESTONI

CAMPAIGNER **SHANNON HURLEY** GIVES AN UPDATE
ON SPIDER CRAB MATTERS.

It could be considered strange, yet equally spectacular, to glue algae and seaweed to your back as a costume. But that is precisely what Spider Crabs do to (though more to disguise themselves from predators than just a silly dress-up). And their massive congregation in Port Phillip Bay each year, with legs sprawling and claws snapping en masse, does make for quite the party!

The world's largest Spider Crab aggregation is a strange spectacle that Victorians have become incredibly proud of sharing with the global marine community. (Read more detail in June and September editions of *Park Watch*.)

Community support for safeguarding the Spider Crab aggregation from intense harvesting is strong. More than

2,000 of you responded to the recent Victorian Fisheries Authority (VFA) draft fisheries notice consultation. This was in addition to the more than 34,000 people who had already shown their support for extra Spider Crab protection measures to be implemented.

Thank you for being totally *clawsome*!

Letters from VNPA and our supporters have been sent to the VFA and the Victorian Ministers for Fisheries, Environment and Tourism, opposing the bag limit reduction from 30 to 15 crabs per day, on the basis that this proposed regulatory tool does not address the concerns of impacts on the marine environment. We have instead urged for a seasonal no-take period during the Spider Crab's aggregation in Port Phillip Bay from April to July.

The 'no-take break' push comes in response to intense harvesting of the Spider Crabs in recent years, with large numbers hauled out from Rye Pier, and related litter, pollution and damage directly to the marine environment.

It is worth being clear that VNPA is not anti-fishing, and we are not attempting to stop fishing of the crabs, despite some claims. To correct this misinformation, VNPA has formal policy objectives that support recreational and commercial fishing, on the premise that fishing and harvesting practices are subject to careful and comprehensive monitoring and management arrangements, and consistent with marine plans and fisheries management.

In our view, this has not been the case with the Spider Crab harvesting practices in recent years. VNPA supports Spider Crab protection in the form of a no-take period at the peak seasonal times of their life cycle when they are most vulnerable and seeking safety in numbers to complete their moult. We see this as a solution to address the suite of negative impacts on this unique ecological phenomena and tourism drawcard. We are open to working with interested stakeholders on how to achieve protection of the crabs and the marine environment in which they live.

There are many different ways in which to value and experience the Spider Crabs – whether that is through appropriate harvesting or snorkelling, diving, photographing and the like. But these all need to be done thoughtfully and be carefully managed so that the future of this marine spectacle is not at risk.

As we await the outcome of the proposed fisheries notice consultation on the bag limit reduction, VNPA, as a supporter of the SOS Save Our Spider Crabs campaign, along with other groups and individuals, will continue to work with stakeholders to urge the Victorian Government to implement the best outcomes for the Spider Crabs and community. We all want to ensure the most enjoyable and long-lasting experience possible. • PW

This 2019 fuel reduction burn in East Gippsland's Radar Hill was fierce. Most of the inquiries recommended trialling Indigenous 'cool' burning practices.

RECOMMENDATIONS FOR FIRE MANAGEMENT

PHOTO: LISA ROBERTS

WHAT DO FOUR INQUIRIES HAVE TO SAY ABOUT LAST SUMMER'S BUSHFIRES?
CAMPAIGNER **PHIL INGAMELLS** LOOKS AT SOME EYEBROW-RAISING RECOMMENDATIONS.

Last summer's fires ravaged the east coast of Australia, and generated four inquiries of particular relevance to Victoria: two federal inquiries and two state inquiries totalling some 1800 pages of reports.

For starters, here are a few facts and figures from the federal Royal Commission into Natural Disaster Arrangements:

- The fires, which started in the middle of winter 2019, burnt tens of millions of hectares across the nation over the ensuing months of what would come to be called our 'Black Summer'.
- Hundreds of communities were displaced, thousands of homes were destroyed, and 33 people (including nine firefighters) died in the fires. Smoke contributed to several hundred additional deaths.
- Around three billion animals were killed or displaced, including threatened species and communities.
- The yet-to-be measured financial cost is in the billions of dollars.

All inquiries clearly acknowledged the impact of climate change; we should expect more frequent and larger fires in the years to come.

It's not possible to report here on every recommendation from these inquiries, but there are some important findings and, as always it seems, some omissions.

1. *Reducing Bushfire Risks. Victorian Auditor General (VAGO) 2020 report to Parliament*

This report from Victoria's ever-vigilant watchdog was particularly damning on issues around the Department of Environment, Land, Water and Planning (DELWP)'s fuel reduction programs. VAGO found that "With the exception of some isolated case studies, DELWP does not know the effect of its burns on native flora and fauna".

DELWP has been touting its highly-sophisticated measurement of the impact of fire on the state's much-stressed native ecosystems – Geometric Mean Abundance – since 2015. But the auditor says "DELWP does not currently report against GMA, despite stating its intention to do so". This is not surprising. It's a complex measure of trends in the wellbeing of our native species, and unlikely to produce significant results till long after any damage is done.

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(Another point the auditor might have made is that DELWP doesn't routinely report on the effect of planned fire or wildfire on threatened flora, fauna or listed communities.)

And the monitoring of the effectiveness of DELWP's fuel reduction program was also questioned, given that DELWP, somewhat bizarrely, uses its Phoenix Rapidfire modelling program to assess whether planned burns were effective. But that same program was used to plan the burns in the first place! So, of course, it can only report "success".

Further, DELWP "... cannot compare the cost-effectiveness of different types of burn approaches with other non-burn treatments because it does not collect the necessary data to do so."

VNPA has, for years now, been asking DELWP to assess the actual effectiveness, over time, of fuel reduction burns in different vegetation types (see *Park Watch* June 2020 page 14).

Fire management is undeniably one of the hardest tasks for a government department, and it will get harder, but that's no reason to allow a department to self-assess its operations. Appointing independent monitors might reduce some of DELWP's workload, and perhaps encourage the development of otherwise hard-to-achieve, evidence-based changes in operations.

2. Victoria's Inspector General for Emergency Management (IGEM) Phase 1 report: Community and sector preparedness for and response to the 2019-20 fire season.

This well-informed body produced a somewhat conflicted document. IGEM raised some important issues in the 350 pages of the report, but they were condensed into 35 'Observations' and 65 'Findings', before finally reaching just 17 'Recommendations'.

The state government was only obliged to respond to the 17 Recommendations, all of which it accepted. But that leaves the Victorian community with little understanding of how DELWP might respond to a number of issues that didn't make it to the shortlist.

Among them:

- "Even with an extensive fuel management program, bushfire risk remains and increases as the vegetation regrows." (page 25)
- "Studies in forests and woodlands have found between 2.2 and 10 ha of hazard reduction burning are required each year to reduce the annual extent of bushfire by one hectare." (page 127)
- "...a marked increase [in burning would] have significant implications for factors such as biodiversity conservation, greenhouse gas emissions and smoke exposure". (page 127)

Last summer's fire burnt through this heathland at Yeerung River. There was a great range of fire impacts throughout East Gippsland's many habitat types.



Life After Fire – new project

Our NatureWatch program is heading east to Gippsland for our new Life After Fire project! We will be conducting post-fire wildlife monitoring in areas of fire-affected private land north of Bairnsdale. Now that restrictions are easing, we hope to get our monitoring equipment out there very soon. This project is supported by a WIRES Landcare Wildlife Relief & Recovery grant. We have some fantastic community, scientific and land management partners onboard, so we are hoping to secure more funding to take the project to three other areas across Gippsland, from sub-alpine grasslands to coastal heathlands. Hopefully our NatureWatch volunteers can join us for three-day, two-night camps between March and June, and then again in spring. • PW



PHOTO: DAVID BLAIR

These and other issues weren't reflected in IGEM's recommendations. Protecting human life and protecting the environment are the two recognised objectives of fire management in Victoria, with human life (understandably) being the priority. But IGEM didn't mention the environment once in any of its 17 Recommendations.

The state government's response to one recommendation could be a worry. IGEM's recommendation for more non-burning fuel reduction (largely slashing or mulching close to buildings) seems to have been interpreted by DELWP as reason to expand its highly controversial program of broad-scale clearing of roadside trees.

There should be a high degree of public accountability for this program, which can impact both biodiversity and tourism.

3. Australian Senate's Finance and Public References Committee's report on "Lessons to be learnt in relation to the Australian bushfire season 2019-20".

This report recommended the release of federal funds for a number of fire management programs, including the establishment of a national aerial fleet of small and large aircraft.

It also recommended reversal of funding cuts to the ABC, and the establishment of discrete funding for its emergency broadcasting services.

4. Federal Royal Commission into Natural Disaster Arrangements

Some 85 staff (including 30 lawyers!) received over 1,300 submissions before producing this 600-page report within eight months of being commissioned in February 2020.

Its 80 recommendations largely related to state and Commonwealth liaison issues, and sensibly focused on "what needs to be done rather than how it should be done".

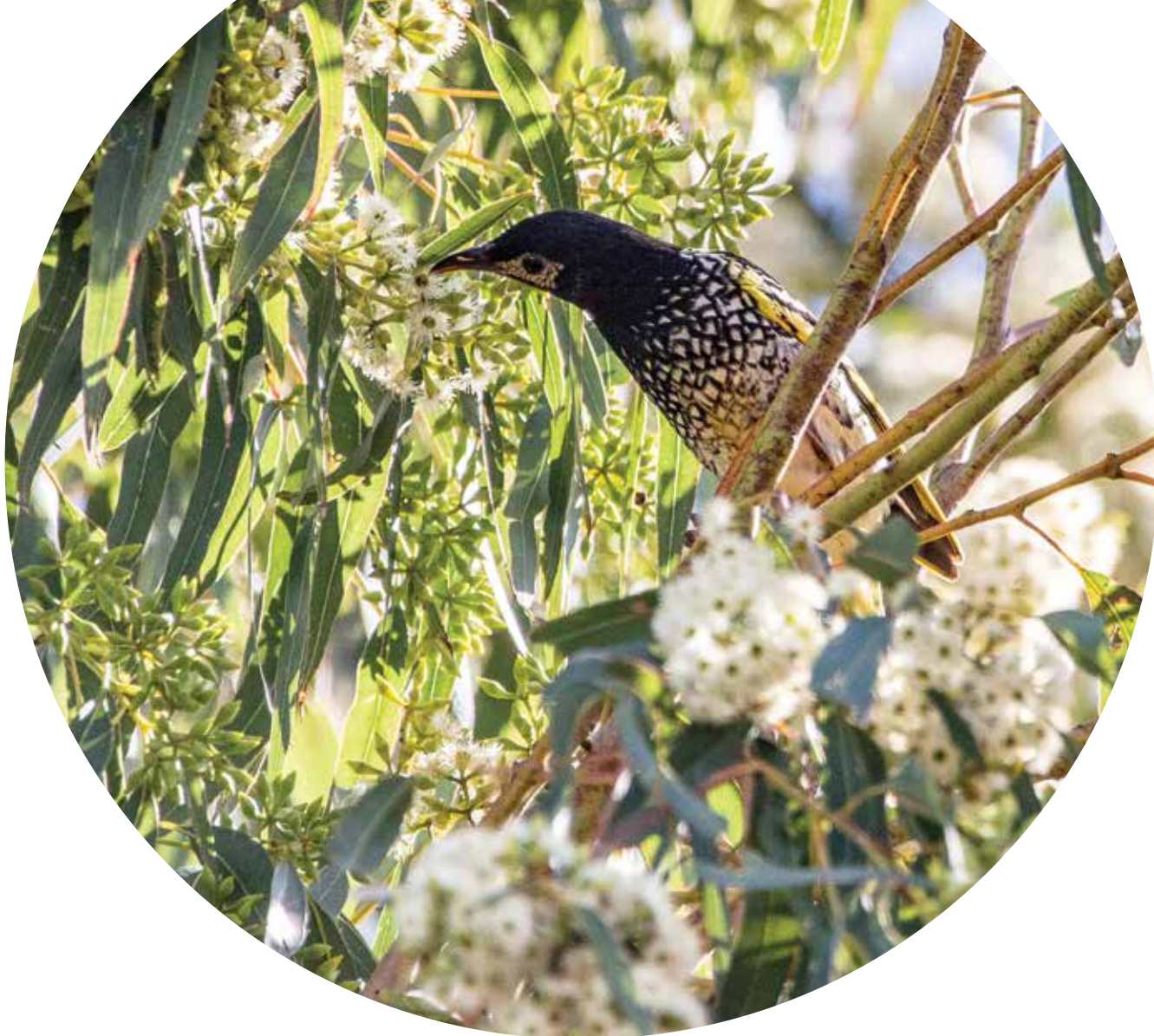
It was strong on the climate issue: "Catastrophic fire conditions may render traditional bushfire prediction models and firefighting techniques less effective".

Its recommendations included:

- States should exchange information about climate risks, and establish interoperable communications.
- A national aerial firefighting capability should be established (and there should be ongoing research into the effectiveness of aerial fire management).
- Land managers should make fuel management strategies available to the public, *including the rationale behind them* (our emphasis added).
- States should be consistent in collation, storage and provision of data on the distribution and conservation status of flora and fauna.

The federal government has already rejected the recommendations for a national fleet of firefighting aircraft.

Managing fire under a changing climate is already one of the most difficult tasks in Australia, but business as usual isn't an option. The issues raised in the 1800-odd pages of these reports might be the shake-up our fire management needs. • PW



It's tool time

2028 VICTORIAN THREATENED SPECIES ARE IN NEED OF CONSERVATION ACTION,
WRITES CAMPAIGNER **JOHN KOTSIARIS**.

It has been 32 years since the introduction of the Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act), Victoria's main threatened species protection laws. Its first and foremost objective is to "guarantee" that all of our state's plants and animals can persist in the wild indefinitely.

But this year, a provisional update to Victoria's Threatened List has indicated a formal increase of 1400 threatened species (a 215 per cent increase from 644), totalling 2028 recognised threatened species in Victoria.

Around 700 (35 per cent) have been recently assessed by the Victorian Department of Environment, Land, Water and Planning (DELWP) Conservation Status Assessment Project as 'critically endangered', and another 1000 (50 per cent) were assessed as 'endangered'.

This means approximately 1700, or 85 per cent, of Victoria's threatened species are teetering on the brink of extinction – even with legal protection under the FFG Act.

Despite the well-intended conservation objectives of the FFG Act, a lack of political will for implementation has meant that the legal conservation tools available under the Act have remained unimplemented for over three decades.

In 2014 there was an election commitment by the ALP to review the FFG Act, which was undertaken on a departmental level. Environment groups, including VNPA, argued that the reforms did not go far enough for the protection for threatened species. Nevertheless, amendments progressed. The *Flora and Fauna Guarantee Amendment Bill 2019* passed through parliament with bipartisan support and the amended FFG Act came into force in June 2020. The first step for implementing the amended Act is to create a new Threatened List.

Victoria's new Threatened List

Victoria and other states and territories have agreed with the federal government to adopt the Common Assessment Method (CAM) for listed threatened species. These methods

Left: Along with the flower-mad wattlebirds, the critically endangered Regent Honeyeater is a member of the *Anthochaera* genus which, fittingly, is Greek for "flower enjoyer".
Photo: Mark Gillow, Wikimedia CC

are based on International Union for Conservation of Nature (IUCN) criteria, and Victoria's threatened species will now be listed with an assessed extinction risk – 'vulnerable'; 'endangered'; 'critically endangered'; 'extinct', or in the case of the Southern Blue Fin Tuna, 'conservation dependent'. Victoria did not adopt the CAM for ecological communities; the assessment process for threatened ecological communities will remain as it is with generic 'threatened' listings.

DELWP recently used the new assessment method to assess the risk of extinction in Victoria of threatened species. A provisional new Threatened List has been developed, consolidating Victorian species listed under the national *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), species already listed under the *Flora and Fauna Guarantee Act 1988*, and species included in DELWP's threatened species 'advisory lists'.

DELWP's provisional assessments indicate that 1400 species are to be added to Victoria's Threatened List, with 628 species to be retained and 16 species to be de-listed. Of the de-listed species, 8 were deemed invalid, 5 were assessed as 'least concern', and 3 were de-listed for being deemed 'data deficient'. Another 130 currently unlisted taxa will remain unlisted. Of these, 81 were invalid, 21 were deemed 'data deficient', 24 were assessed as 'least concern', and 4 were assessed as 'near threatened'.

While the goal was to have an updated and consolidated threatened species list, a flaw in the legislation has resulted in a proposal for a new Threatened List that is to be divided into two sections, where species will be listed with either their Australian risk of extinction or with their Victorian risk of extinction.

Those Victorian threatened species that happen to also be listed as threatened under the national EPBC Act are proposed to be listed only with their Australian risk of extinction under the FFG Act. This effectively creates two FFG threatened species lists – which is a problem. Unless the Victorian risk of extinction is always provided, issues are likely to arise with nationally listed species that may be more particularly at threat in Victoria.

It's time to implement the tools of the FFG Act

With over two thousand threatened species in Victoria, most of which are endangered or critically endangered, it is high time that the Victorian Government started implementing the *Flora and Fauna Guarantee Act 1988* and actually made use of the available legal conservation tools that are designed to help save our threatened plants and animals from an ultimate demise.

The amended FFG Act of 2020, in many cases, still leaves threatened species protection as optional. Therefore the laws are only as good as the money spent on implementation and the level of political will to take action. This means making a real effort to implement the tools of the Act by:

- maintaining a comprehensive **Threatened List**
- developing a prioritised action plan to create **Action statements**
- creating **flora and fauna management plans** to guide and implement conservation action

- making **critical habitat determinations** to identify areas of critical habitat of threatened species
- making **habitat conservation orders** to protect critical habitats under threat
- effectively enforcing the new **flora and fauna duty on public authorities**.

What's in the FFG tool box?

Action statements: Action statements are mandatory legal documents outlining the intended conservation action for listed threatened species, threatened communities and threatening processes.

For many years there has been a large backlog of action statements waiting to be created, and those that have been created are often old and out of date. In 2009 the Victorian Auditor-General's Report into the administration of the FFG Act found that at the rate of listing at the time, it would take 22 years to develop action statements for the remaining listed items and recommended a "prioritised action plan" to address the backlog. It appears as though this recommendation was ignored.

The Victorian Biodiversity Plan, *Protecting Victoria's Environment – Biodiversity 2037*, is the current Flora and Fauna Guarantee Strategy and main funding program for biodiversity in Victoria. It does not once mention action statements.

Flora and fauna management plans: The intention of flora and fauna management plans are to follow on from action statements and guide the actual implementation of management actions for conserving threatened species and reducing threatening processes. They are flexible tools that can deal with one or more listed items at a time, and their use would open up many possibilities for conservation implementation at the taxonomic, habitat and geographic scales. Our environment department has so far drawn up a grand total of zero management plans.

Fortunately, management plans have been strengthened slightly under the amended FFG Act. The environment minister is now able to make guidelines in relation to the circumstances in which our environment department *must* make a management plan under the Act. Guidelines are currently in development and will be open for public consultation.

Critical habitat determinations & habitat conservation orders: If an area contributes significantly to the conservation in Victoria of a listed (or recommended to be listed) threatened species or community, then DELWP is able to make what's known as a 'critical habitat determination' to declare an area as critical habitat under the FFG Act. The determination of a critical habitat then allows the use of habitat conservation orders. Habitat conservation orders provide for a Ministerial power to order the conservation, protection or management of flora, fauna, land or water within a critical habitat (or proposed critical habitat), as well as to order the prohibition of any activity, land use or development within the critical habitat. The order can also provide for prohibitions outside the critical habitat if the activity is likely to adversely affect it.

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If used effectively, habitat conservation orders could be a useful tool as a short-term measure (they can specify a period up to 10 years) to quickly put in place protections against critical threats to threatened species habitats, such as those arising from wildfire, in an orderly way with legal force.

To date, just one (and quickly withdrawn) critical habitat determination has been made under the FFG Act by our environment department in three decades. And the environment minister has never made a habitat conservation order to protect the critical habitat of a listed threatened species.

The amended Act now enables the Scientific Advisory Committee to make a recommendation to DELWP to make a critical habitat determination, and DELWP must then make a decision and publish the reasons for it. However, there are no provisions specifying conditions when critical habitat determinations must be made. Ultimately, both critical habitat determinations and habitat conservation orders are optional. This means that a political will to implement both tools is paramount.

A new flora and fauna duty on public authorities: At the moment, the biggest destroyer of habitat in Victoria is the state government and its agencies. However, the amended FFG Act now requires ministers and public authorities to give proper consideration to the objectives of the Act, which notably include a “Guarantee” on the persistence of Victoria’s flora and fauna in the wild and an objective “to protect, conserve, restore and enhance biodiversity”. There are also requirements for ministers and public authorities to give proper consideration to biodiversity impacts, and to any instrument made under the Act including the Biodiversity Strategy, action statements, critical habitat determinations and management plans. This flora and fauna duty on public authorities is a significant new compliance power and Victoria must ensure that it does not become yet another unused tool.

While the Flora and Fauna Guarantee Act could still be strengthened further, the current legal conservation tools available do have potential. For effective nature conservation in Victoria, our many rare and increasingly threatened species need conservation action. It’s time to take the tools out of the shed, brush off the dust and actually use them for their intended purpose – to get our flora and fauna off the Threatened List and reduce the risk of losing species for ever. • PW

Table: Provisional Victorian Threatened List and Victorian CAM extinction risk assessments.
Note: 28 species with CAM-assessed national listings were not assessed in Victoria and are included in this table with their national risk of extinction.

	Number of threatened species on new FFG Threatened List	Retained	New	Delisted	Assessed risk of extinction in Victoria (Conservation Status Assessment Project 2020)			
					Vulnerable	Endangered	Critically Endangered	Extinct
Mammals	50	42	8		13	13	7	17
Birds	101	74	27	4	21	36	41	3
Fish	34	31	3	1	3	14	15	2
Amphibians	15	12	3		2	4	9	
Reptiles	40	30	10		1	20	18	1
Insects	56	32	24	3	9	27	17	3
Crayfish, yabbies, shrimp	28	15	13	1	2	21	5	
Other invertebrates	37	20	17	1	12	11	13	1
Flowering plants	1548	342	1206	4	188	799	523	38
Ferns and allies	51	9	42	1	1	24	24	2
Bryophytes	60	18	42	1	1	25	33	1
Fungi	6	1	5			5	1	
Lichens	2	2				1	1	
TOTAL	2028	628	1400	16	253	1000	707	68

A split list?

VICTORIA'S NEW
THREATENED SPECIES LIST
SHOULD ALWAYS DECLARE
RISK OF EXTINCTION
IN VICTORIA, EXPLAINS
JOHN KOTSIARIS.

Although species and communities of flora and fauna can exist across state borders, Victorian legislation only has jurisdiction in Victoria.

At the same time, our national environmental laws are weak and under attack, so it is paramount that our state's efforts reflect the conservation needs of species within our own borders.

As things currently stand, Victoria will soon have a new Threatened List that is to be divided into two sections, where species will be listed with either their Australian risk of extinction or with their Victorian risk of extinction.

Any Victorian threatened species that happen to also be listed as threatened under the national EPBC Act will soon be listed only with their Australian risk of extinction under the FFG Act – regardless of whether risk of extinction in Victoria is greater than risk of extinction in Australia.

Effectively, this means two FFG threatened species lists.

Potential problems with Victoria's proposed split Australian/Victorian extinction risk Threatened List include:

1. A risk of extinction in Victoria will not be provided for every threatened species on Victoria's Threatened List. The declared risk of extinction of 255 species will be rigidly tied to the official Australian risk of extinction, regardless of whether risk of extinction in Victoria were to change.
2. When a critical habitat determination is made for a critically endangered species, the FFG Act provides a trigger for a decision by the Victorian Environment Minister on whether or not to make a habitat conservation order for the critical habitat of the species. This trigger is compromised if the Threatened List does not include the Victorian risk of extinction for each listed threatened species. 106 species considered to be critically endangered in Victoria are to be listed with a lower Australian risk of extinction on Victoria's Threatened List. VNPA has raised this issue with DELWP and it appears to be an unintentional outcome which may require an amendment to the legislation, and could be managed administratively for the time being.



PHOTO: NICK SHAW

3. EPBC Act listed species will be listed on Victoria's Threatened List with their Australian risk of extinction regardless of the age of the EPBC Act listing. As a result, 227 species will be listed on Victoria's Threatened List with an older non-CAM assessed national risk of extinction, while the other 1801 threatened species will have a newer CAM assessed Victorian or national risk of extinction.

In order to have a single, functional and comprehensive list, Victoria's FFG Act Threatened List should *always* state the risk of extinction in Victoria for each of our state's listed threatened species. For species that also happen to be EPBC Act listed, the aim should be to include both the Australian *and* Victorian risk of extinction.

This is a simple solution which will mean that both the risk of losing species in our state and the risk of losing species in Australia can officially be considered in decision-making processes. Both are highly important considerations for threatened species conservation, and should be adequately reflected for each species on Victoria's Threatened List.

Victoria only has the power to 'guarantee' protection of flora and fauna within our state. When implementing Victoria's Flora and Fauna Guarantee Act, conservation in Victoria must remain the top priority. • PW

Our very own
giants – old-growth
Mountain Ash in
Toolangi.



Photo: Michael Feller

OLD-GROWTH FORESTS – IMPERILLED IN VICTORIA

MICHAEL FELLER, VNPA COUNCIL MEMBER AND CONSERVATION COMMITTEE CO-CHAIR, WRITES OF THE ONGOING LOSS OF OUR INVALUABLE OLD TREES.

Old-growth forests are awe-inspiring ecosystems. They are rich in flora and fauna – some species completely depend on such forests for their existence. Their trees have more nesting hollows than younger trees, they protect soils, and can supply more water to streams than younger forests. They help forestall climate change by storing more carbon than any other terrestrial ecosystem. And like the world's cathedrals, they offer great aesthetic and religious values to many people.

But they are disappearing, due to the direct and indirect impacts of people.

Logging and fires are the main causes of this disappearance. Logging directly destroys the forests, as do bushfires, which are being made worse by human-induced climate change and the presence of post-logging younger forests, which lead to more intense fires.

When one thinks of old-growth forests, one thinks of big trees and old trees. Victoria and Tasmania have some of the world's biggest trees in Mountain Ash (*Eucalyptus regnans*), similar in stature to California's Giant Redwood (*Sequoiadendron giganteum*) and Coast Redwood (*Sequoia sempervirens*) forests.

Our Mountain Ash trees may live for several hundred years, unlike the redwoods that can live for several thousand years. Although the trees in some North American old-growth forests may be only a thousand years or so in age, the forests themselves can be extremely old. They may not have been disturbed for over 10,000 years, since the last ice-age, as is the case with Western Redcedar (*Thuja plicata*) forests in central British Columbia, Canada.

In Victoria, however, it appears that all our forests, even our wettest ones, have experienced bushfires, making our remaining old-growth extremely valuable. It has been estimated that some 30–60 per cent of Victorian Mountain Ash forests were old-growth when Europeans first arrived; this figure is now just over one per cent. About 65 per cent of East Gippsland's wet and damp old-growth forest was lost between 1995 and winter 2020.

Protection?

In November 2019, the Victorian government announced that "90,000 hectares of Victoria's remaining rare and precious old-growth forest – aged up to 600 years old – will be protected immediately." This suggested that there would be no more logging of old-growth, but it would have to be assessed prior to logging. A critical issue, then, is how old-growth is to be recognised in the field. To address this, the Victorian Government's Office of the Conservation Regulator (OCR) put out a draft old-growth field assessment procedure in late 2019, then a final procedure in July 2020.

But does the new assessment procedure really protect old-growth?

An old-growth forest in Victoria was defined in the 1990s as "a forest which contains significant amounts of its oldest growth stage in the upper stratum – usually senescing trees – and has been subjected to any disturbance, the effect of which is now negligible". The assessment procedure considers that old-growth must have a minimum area of one hectare, and that regrowth trees must comprise less than 15 per cent, and senescent (old and declining) trees more than 10 per cent, of the upper stratum trees.

The procedure first determines whether a field assessment is necessary. This is done by consulting computer databases, which might indicate that no field assessment is required if a recent fire had occurred in the area. However, fires do not always burn 100 per cent of the area within their mapped boundaries, and a one hectare+ patch of remaining old-growth within a fire boundary is possible.

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Assessment

The field assessment then uses a forester's method of inventorying tree wood volumes to estimate the proportion of different tree types in the upper stratum (there are no data to support this estimation method), instead of actually recording all upper canopy trees present in an area. This method can be somewhat subjective and the person conducting the assessment can determine which trees to include, biasing the results. This field assessment can be performed by VicForests or its contractors, who have not been noted for their concern for conservation.

Furthermore, the OCR has placed a one-hectare square grid across Victoria and requires the tree measurements be made at the centres of the one-hectare squares. This can easily miss substantial areas of old-growth if they are between the centres of adjacent squares.

Ecologists consider that it is not possible to come up with a generic definition of old-growth that can be applied to all forest types. A scientifically defensible and ecologically robust definition is only possible for a given forest type within a given region.

The point at which a stand no longer constitutes old-growth is subjective. Thus, old damp forests in Victoria have fewer senescent trees and more mature trees than old wet forests, due to the relative tolerance to fire of the trees in the different forests. So it is likely that old-growth damp forests and even drier ones should be considered to have a higher proportion of regrowth and less senescent trees than old-growth wet forests – contrary to the OCR's uniform definition of old-growth.

A more serious concern about the definition is that although it will protect some individual stands of old-growth, it will not protect old-growth overall. All old-growth studies in Victoria have highlighted the need to protect the old-growth estate.



PHOTO: PETER HALASZ, WIKIMEDIA CC

A testament to time – along the Goongerah Old Growth Forest Walk in Victoria.

This was first highlighted in 1992 during the development of Regional Forest Agreements, and it has been a consistent theme in all subsequent studies of old-growth in Victoria.

Properly protecting the old-growth estate

In a key study, Burgman stated:

“A protection system for old-growth forest that involves protection of young, mature and senescent forest may be termed the old-growth estate. [This] estate includes all forest within a given ecological vegetation type that has the potential to develop old-growth values. Probably most Australian old-growth forest stands eventually will burn and adequate protection will involve the provision of young forests to develop into old-growth forests.... *the maintenance of a spectrum of regeneration stages is necessary to conserve the suite of ecological processes and species diversity that characterise old-growth forests.*”
[our emphasis added]

For example, two small (less than one hectare each) patches of old-growth separated by a few hundred metres of mostly mature forest which has the potential to become old-growth in the near future, with a total area more than one hectare, is clearly part of the old-growth estate. Such an area should be protected if old-growth is to be protected, but it would not be protected using the OCR assessment.

In another key study, Woodgate et al. (1994) pointed out that:

“the small suite of mappable characteristics that scientists will use over the next few years to delineate old-growth forest provide no certain measure of the many secondary characteristics (such as faunal attributes, functional process and intangible values) that may well warrant consideration as important management values.”

This is clearly the case with the OCR's use of only upper canopy tree growth stages to define old-growth.

Another concern is that relatively large trees are characteristic of old-growth, and such trees are declining rapidly. Many large old trees occur in stands that are not considered old-growth by the definition used. The Victorian Department of Environment, Land, Water and Planning (DELWP) guidelines currently only protect trees that are more than 2.5 metres in diameter-at-breast-height (dbh). This would probably protect no significant large old tree in western Victoria, and relatively few in eastern Victoria.

Such a tree, in the case of Mountain Ash, would be over 220 years old, based on a dbh vs. age relationship – well beyond the age of 120–150 years when such trees function as old-growth trees by developing valuable hollows for wildlife. As another example of the poor protection of large trees, a survey of riparian trees along the entire length of Chum Creek, between Healesville and Toolangi, found 914 large trees with diameters greater than 90 centimetres (significant large trees according to DELWP) in approximately 80 hectares of Mountain Ash and different mixed species forests using DELWP's EVC criteria, but only six of these (0.7 per cent) were more than 2.5 metres in diameter, qualifying for protection.

Thus, many large *and* old trees – the most common defining characteristic of old-growth forest – are not protected in Victoria.

Consequently, as a result of current government policies, neither old-growth trees nor old-growth forests are properly protected in Victoria. While the Victorian Government has made big announcements about old-growth, there are major flaws in old-growth assessment methods and large tree protection.

We urgently need to protect the old-growth estate, rather than creating new technical loopholes to allow its continued logging. • PW



Bogong Moths to Mountain Pygmy-possums – the case against ‘neonics’

DIGITALLY CONSTRUCTED IMAGE

Bogong Moth migrations to the high country of Victoria and NSW have radically declined.

ARE AGRICULTURAL CHEMICALS IN THE MURRAY DARLING BASIN CAUSING THE DEMISE OF MOUNTAIN PYGMY-POSSUMS IN THE AUSTRALIAN ALPS? IAN MANSERGH AND DEAN HEINZE, ECOLOGISTS AND WILDLIFE BIOLOGISTS WHO HAVE BEEN WORKING ON THE SPECIES RECOVERY FOR MANY YEARS, DRAW THE CONNECTION.

Most of us have heard of, or perhaps seen, the annual summer migration of Bogong Moths from the plains of the Murray-Darling Basin to the cool boulder fields of alpine areas in Victoria and NSW.

We’ve also heard, or read, how for thousands of years Aboriginal people from surrounding areas travelled to the alps each summer to feast on the nutritious moths, and to meet and hold ceremonies.

But since 2017, this iconic Bogong Moth migration has almost completely ceased.

And with this sudden population collapse came starvation for the endangered Mountain Pygmy-possum pouch young and high levels of litter loss never seen before.

In March 2019, Aboriginal people from surrounding communities gathered at the alpine source of the Murrumbidgee River to conduct ceremonies to help restore the health of the Murray-Darling Basin. The Basin certainly needs this. The notorious 2019 fish kills were actually the vertebrate sequel to the Bogong Moth collapse of 2016 –17 – unprecedented in 70 years of scientific data.

An estimated 8–10 billion Bogong Moths used to visit the alpine region each year, and in the basalt boulder fields of their aestivation (dormant state) sites in could be in densities of 14,000 per square metre. The migration represented an annual nutrient transfer to alpine areas that is a major contributor to the health of the area’s soils and vegetation. The invaluable addition of phosphorus, nitrogen and carbon helped avoid entropy, the running-down of nutrients and vibrancy, in the alps.

And the moths now have another claim to fame. Recent research by Australian scientist Eric Warrant and others at Lund University in Sweden has illuminated the amazing nocturnal navigational system of the Bogong Moth, including a neurology that has evolved a magnetic compass – the first known for any insect. This evolutionary sophistication makes the famous diurnal migration of the Monarch butterfly across North America look rather simple by comparison.

So, what has caused the disappearance of the moth population? We don’t know exactly. Many people blame the protracted drought conditions in the self-mulching alluvial soils of the Basin, where the moths’ eggs are laid and hatch out. This is undoubtedly a contributing factor.



PHOTO: PHIL INGAMIELLS



PHOTO: VNPA

Top: Mount Buffalo National Park is just one place where Bogong Moth declines have been observed.

Bottom: Vast numbers of Bogong Moths once sheltered, each summer, in cool clefts in rocks throughout the high country.

The millennial drought (2002–2009) saw low numbers of moths in the alps, but the record rains of 2010–11 was the precursor to a peak year for the moths in 2013–14, showing their populations can recover. But numbers then declined until the unprecedented collapse in 2016–17. Although the range of Bogong Moth natal areas is immense, covering about 20 per cent of continental Australia, the actual areas of suitable habitat are much smaller. Their moister, more fertile drought refugia (habitats that naturally retain water) are smaller still, and fragmented within agricultural areas.

Enter the neo-nicotinoides (known colloquially as ‘neonics’). These have become the world’s most widely used pesticide family. The global collapse of bee populations a decade ago caused European countries to partially ban neonic use and initiate a review. (It was found that bee navigation is adversely affected at pesticide rates as low as 30 parts per billion.) The review concluded that the widespread use and long persistence of neonics in the broader environment adversely affected wild populations of a range of vertebrate species such as fish, frogs and rabbits. In 2019, the Europeans banned ambient use of some neonics.

From the mid to late 1990s, neonic use became widespread in Australia. Since then there have been both droughts and

low seasons for Bogong Moths in the alps. However, neonic use in Australia increased by 30 per cent in 2016–17 and has continued at that level. This increase in neonic use correlates with the Bogong Moth population collapse.

Was the moths’ increased use of drought refugia, where neonics may have been used, a further blow to an already stressed population? We don’t know, but it seems highly probable. Following the European partial ban of neonics in 2012, the Australian Pesticides and Veterinary Medicines Board was to ‘monitor’ neonic use. But no field monitoring of native species appears to have been undertaken.

And what of the Mountain Pygmy-possum pouch young? In July 2019, ecologists involved with wild populations met with other scientists (geneticists and modellers). They recommended increased monitoring of both Mountain Pygmy-possum and Bogong Moth populations to provide data to allow for modelling to better understand these phenomena.

The recruitment of first-year Mountain Pygmy-possum into the population has remained consistent over 40 years of recording and even with observed litter losses in recent years, recruitment of first year adults was also observed.

The scientists recommended that any direct management interventions with the possums (e.g. supplementary feeding, captive management/salvage) was to be avoided while further research was being undertaken to determine whether low moth numbers and litter losses were having a long-term impact on possum populations. It was deemed important to understand the situation and establish whether it was a true threat, rather than rushing into interventions that can disrupt already stressed populations.

During preliminary monitoring in November and December 2019 more Bogong Moths were observed than in previous years, although numbers were still relatively low compared to those observed in the 1990s. Little starvation of pouch young was observed early in the 2019 season, however, the bushfires and restricted site access cut short the full Mountain Pygmy-possum monitoring program in the Alpine National Park and adjacent Alpine Resorts.

The main game here is determining the reasons for, and reversing, the collapse of the Bogong Moth population. The Murray-Darling Basin Authority and the Australian Pesticides and Veterinary Medicines Board have a few questions to answer. • PW

Mountain Pygmy-possum



PHOTO: TIM BAWDEN

Tribute

Graeme Worboys

6 May 1950 –
28 September 2020



Until 1978, road access to the summit of Australia's highest mountain was accepted by all, including a large carpark a few hundred yards from the peak. The decision to prevent the gross intrusion of a planned sealed road and to subsequently restore Rawsons Pass, one of Australia's most spectacular high alpine saddles, was largely the work of a public servant little known outside conservation circles: Graeme Worboys.

But it's not for this alone that Graeme is one of Australia's conservation heroes. For 40 years he worked with great knowledge, passion and seemingly-limitless energy as a NSW ranger and senior park administrator, and later, in private life as a volunteer activist for many conservation causes, both local and international. His death in September has been a huge loss to conservation.

As a Scout growing up in Foster in rural Victoria, Graeme explored nearby Wilsons Promontory, and became a seasonal ranger there. After completing an honours geology degree at Melbourne University, he chose a career in protected area management. He joined the NSW NPWS, working as a ranger naturalist in Kosciuszko, in the Sydney Head Office, the Blue Mountains, and then back to his first love, Kosciuszko National Park, when he became Regional Manager of South-east Region at Queanbeyan, which included the park.

As manager, Graeme modified or thwarted many plans to use the park for short-term economic gain but long-term conservation loss. He researched and implemented the construction of the steel mesh walkway from Thredbo that combines the difficult task of providing access for thousands of walkers to the summit whilst protecting this fragile route. Between 1978 and 1982, he led the team that developed the most sophisticated management plan for any national park in Australia at that time. This plan defined the protection of the Park into zones, with special protection for the outstanding natural values of the Kosciuszko summit area from inappropriate exploitation from tourism and Snowy Mountains Hydro Electric Scheme.

On his retirement Graeme completed a PhD on Protected Area Management, and began a 20-year voluntary commitment to the International Union for the Conservation of Nature, in particular in the World Commission on Protected Areas. His service earned him the IUCN WCPA's Fred Packard Award for outstanding service in 2016.

Though diagnosed with cancer in 2014, Graeme campaigned tirelessly in the highly contentious battle to remove feral horses from Kosciuszko and other threats to its integrity,

including tourism development, serious fire damage and the building of a vast new Snowy 2 hydro project. When the NSW Government passed its infamous *Wild Horse Heritage Act* in July 2018, Graeme led the organisation of the influential *Feral Horse Impacts: Kosciuszko Science Conference* in November 2018.

Graeme was gentle, unassuming, and always polite, but with a driving commitment and motivation, undeterred to achieve the outcomes in which he so passionately believed. He was the exemplar of that hero who is the foundation of democratic life: a person of passionate beliefs who seeks to communicate, engage, inform and persuade, always with respect and honesty. On Australia Day 2020, Graeme was awarded an Officer of the Order of Australia (AM).

His final triumph came only four months before his death: finishing production of the long and unflinching story of the creation and subsequent life of Australia's iconic Kosciuszko National Park. The book honours all the conservationists and professional park managers whose work and commitment has continued through many trials to protect Kosciuszko. • PW

By Deirdre Slattery, co-author with Graeme Worboys of *Kosciuszko: A Great National Park*.



AN UPDATE ON THE LANG LANG BUSHLAND IN THE FORMER HOLDEN PROVING GROUND BY CAMPAIGNER **JORDAN CROOK**.

This year VNPA has been working with concerned locals and community groups along the Bass Coast to protect the former Holden proving ground site at Lang Lang.

The proving ground site contains the largest stand of remnant vegetation on the eastern side of Westernport Bay.

Local Meryl Brown Tobin wrote about this in the June edition of *Park Watch*.

The largely intact patch (877 hectares) of predominantly native vegetation within the site holds rare and threatened vegetation types such as Swampy Riparian Woodland and Riparian Scrub, which form a vital corridor for plants and wildlife to move through the landscape between surrounding reserves and remnant vegetation.

The site also has records of Orange-tip Caladenia, Prom Sheoak and Lace Monitor, as well as anecdotal reports of Southern Brown Bandicoot.

In September 2020 the site – used by Holden since 1957 to test their vehicles – was sold to Vietnamese

automotive manufacturer VinFast and will continue to be used to test new vehicles.

In the press release announcing the sale, VinFast committed to the ongoing protection of the local bushland and environment, and will continue to allow access for community Landcare management and activities. This is a testament to the local campaign to protect this bushland and raise

awareness of the environmental values of the site.

The campaign continues even though the site has changed hands. VNPA and local community groups are now investigating the surrounding reserves and monitoring ongoing threats from sand mining and development to the area.

The former Holden proving ground is on the land of the Bunurong people. • **PW**

Much of the bushland at the proving ground has remained in good condition due to sustained work by Holden and Landcare to control environmental weeds species.



Members for Life

THE VNPA COUNCIL AWARD HONORARY LIFE MEMBERSHIP TO PEOPLE WHO HAVE PERFORMED MERITORIOUS SERVICE TO VNPA. **ROB ARGENT** AND **LISA SULINSKI** ARE THE LATEST RECIPIENTS.

Rob Argent

Rob has been a Member of VNPA since 2003.

During this time he contributed significantly to VNPA's Bushwalking and Activities Group. Rob was a BWAG Committee member for 15 years and cycled through almost all of the Committee roles, most recently as Treasurer. He has also led many bushwalks over the years.

Rob was also involved in the development and implementation of highly practical and engaging leadership training for new BWAG leaders for several years. Sessions included trip planning and management, communication and problem-solving skills. This training inspired many new leaders to confidently run bushwalks and activities on behalf of VNPA.

In addition, Rob shared his high level of knowledge and experience in navigation by preparing and running navigation training up to twice a year in the mid- to late-2000s. These courses involved training up to 20 people at each course in map reading, landscape interpretation and compass skills over three evening sessions and a field trip, or over a full weekend.

Thank you Rob for your wonderful contribution to VNPA.



Lisa Sulinski

Lisa has been a Member of VNPA since 1994.

As a passionate bushwalking and nature lover, Lisa has been a long-term contributor to the VNPA Bushwalking and Activities Group. This includes as a walker, as a leader, and serving several years on the BWAG Committee, including as Convenor from 2008 to 2011, and in various other roles between 2016 and 2018. Lisa was also a VNPA Council member in 2010/2011 and very involved in the BWAG under 35s group.

Lisa also helped develop and implement a new 'Community Education and Engagement Strategy'. This involved Lisa sitting on the strategy working group and bringing her wealth of experience in education, interpretation, and deep understanding and appreciation of the role of BWAG in the VNPA to the discussion.

BWAG was approached to run a special bushwalking training activity for a Culturally and Linguistically Diverse community group who were interested in nature, but not sure how to go about getting into the bush. This involved sharing the great joys of bushwalking, and in turn learning about the cultural appreciation of nature from this group. Lisa shared her experiences of running this workshop with VNPA staff and BWAG leaders at a Skill Up for Nature workshop.

Lisa was also involved in coordinating VNPA's involvement in the Great Australian Bushwalk in 2007, and has supported the VNPA Wild Families program through offering bushwalking activities in 2017 and 2018.

Thank you Lisa for your outstanding contribution to VNPA. • PW

Members elect Council at AGM

The 68th Victorian National Parks Association Annual General Meeting was held on the 13 October 2020. Our many thanks to all those Members who were present for our first-ever online AGM, and for the positive feedback on a great evening enjoyed by all, despite not being able to meet in person.

Our Director Matt Ruchel gave a presentation on some of the nature conservation issues we are tackling thanks to the generosity of our Members, supporters and volunteers.

We also heard from Nature Campaigner Shannon Hurley about our work to protect Westernport Bay from an ill-advised gas import terminal and the campaign to create new national parks in central west Victoria.

Caitlin Griffith, our Community Learning and Engagement Manager, shared some inspiring stories about the ways we've supported the community to



PHOTO: GAYLE OSBORNE

learn about and protect nature through our ReefWatch, NatureWatch and Wild Families programs, particularly our many new online initiatives. You can catch up on past webinars, workshops and podcasts at www.vnpa.org.au/nature-at-home

For a review of 2020–21 see the enclosed Annual Report, which was endorsed by Members at the AGM.

Members elected new Council Member Doug Robinson – welcome, Doug! Members also re-elected Bruce McGregor (President), Gerard McPhee (Vice-President), Marilyn Crestias (Treasurer), David Nugent (Secretary), Lara Bickford, Ann Birrell, Jan Brueggemeier, Michael Feller, Dianne Marshall, Rosemary Race and Paul Strickland.

Our many thanks to retiring Councillors Deb Henry and Euan Moore – we very much appreciate their dedication and service to VNPA on Council. Fortunately, both Euan and Deb continue to be involved in Committees and various projects.

And finally, we are so very pleased that Lisa Sulinski and Rob Argent were both awarded Honorary Life Membership, in recognition of their outstanding service to the Victorian National Parks Association, particularly through their contribution to the Bushwalking and Activities Group. • PW

To find out more about our dedicated volunteer council visit www.vnpa.org.au/council



Snow Myrtle in Grampians National Park.

Celebrate the life of someone special

Commemorate and celebrate the life of a loved one by making a donation to the Victorian National Parks Association.

By making a donation in memory of someone special to you, you are ensuring that Victoria's national parks, natural places and wildlife flourish – in memory of your loved one.

If you wish, a card acknowledging your gift can be posted to the next of kin.

To make a gift in memory, please contact Amelia Easdale on 03 9341 6500 or via amelia@vnpa.org.au – you can also download a donation form by visiting www.vnpa.org.au/gifts-in-memory

And if you would like to request donations to the Victorian National Parks Association instead of flowers at a funeral or memorial service, please also be in touch with Amelia. • PW

PHOTO: PHIL INGAMIELLS

VICTORIAN SCALYFIN

When it comes to social distancing, no fish does it better than the Victorian Scalyfin (*Parma victoriae*).

This small (up to 25 centimetres) fish punches well above its weight and is not afraid to chase much larger fish, seals, and even divers that stray into its territory. It will attack its own reflection in the mask of a diver to ensure that nothing is encroaching upon its space.

It is a damselfish, meaning it is closely related to the most famous of fish – Nemo!

Victorian Scalyfins change colour as they grow from juveniles of bright orange with neon-blue lines and spots, to adults that are dark greyish to black or rusty-coloured.

Both females and males begin life with a carnivorous diet and then transform to become vegetarians as adults.

The territory they so aggressively defend is where they 'farm' the algae they eat in their rocky reef habitat. Victorian Scalyfin are the market gardeners of the sea – growing and harvesting seaweed, especially their prized crop of red algae. This is the superfood of seaweeds for Victorian Scalyfin, and it gives them the energy required to maintain their garden, and for the males to prepare a bare vertical surface for the females to lay eggs.

Once the females have laid the eggs in November to February, the males will guard them and aerate them until the larvae enter the water column, to begin the fight all over again.

We are celebrating this tenacious fish by choosing it as the face of the Great Victorian Fish Count in 2020. We hope you can help us spot the Victorian Scalyfin during the event this November to December: www.vnpa.org.au/fish-count

*It has been a challenging year in many respects and we will continue to monitor the COVID-19 situation. We will be working with our participating groups to ensure that they understand the restrictions and are able to run their counts safely and responsibly, as they do in every other sense. • PW



A decade of community passion for a native icon

A REPORT ON TEN YEARS OF VOLUNTEER MONITORING IN THE BRISBANE RANGES BY **CAITLIN GRIFFITH** AND **CHRISTINE CONNELLY**.

As well as being a wildflower hotspot, the Brisbane Ranges is home to the iconic Austral Grass Tree.

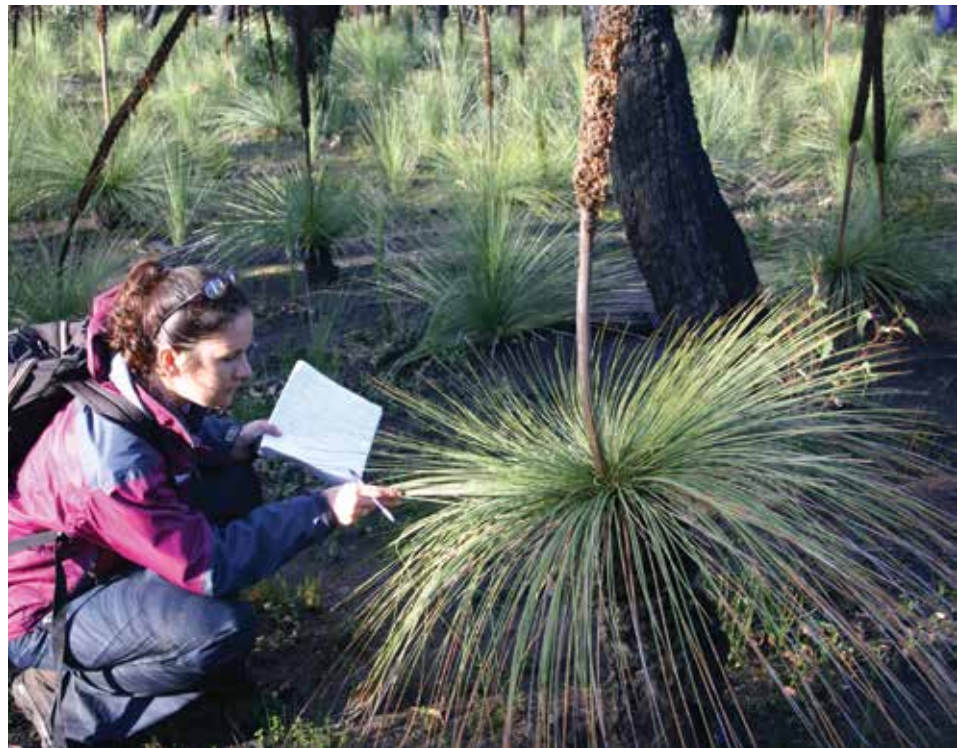
While these spectacular plants are part of what makes this place special, the species (and many others) live with the threat of a devastating pathogen, *Phytophthora cinnamomi*. This pathogen causes dieback and eventual death by inhibiting water and nutrient uptake.

In 2007, the Victorian National Parks Association joined with the Friends of Brisbane Ranges, Parks Victoria and Deakin University to design a monitoring project that investigated the long-term effects of *Phytophthora cinnamomi* on the Austral Grass Trees (*Xanthorrhoea australis*) of the Brisbane Ranges National Park.

In the Brisbane Ranges National Park, dieback caused by the soil-borne plant pathogen *Phytophthora cinnamomi* is a serious problem.

The project saw 240 volunteers monitor grass trees on 252 quadrat assessments over a ten year period. It continued the important work carried out by Dr Gretna Weste, who pioneered the study of the disease in Victoria and spent close to 40 years conducting highly valuable research. Volunteers used the same methods originally established by Dr Weste in 1968.

Seven locations across the park were monitored regularly over the ten years. These locations are a mix of sites that were monitored previously by Dr Weste, and new sites in both *Phytophthora cinnamomi* infected and uninfected areas,



and with varied fire histories. These included four sites that were burnt in the 2006 wildfire. Most of the sites include eight quadrats (8m x 8m monitoring plots), comprising four quadrats that displayed obvious signs of infection and four without signs of infection (i.e. that appear 'healthy'), for comparison.

Key findings from the project included:

1. *Phytophthora cinnamomi* was not observed spreading rapidly to unaffected sites where we carried out monitoring.
2. Grass tree density was higher among healthy versus unhealthy sites.
3. Symptoms of *Phytophthora cinnamomi* infection, such as chlorosis and plant death, appear to combine with other environmental stressors, such as drought and fire.

The project evolved over the decade, but throughout it we were inspired by so many volunteers contributing so many hours to apply the monitoring techniques and hygiene practices. Thanks to this mammoth citizen science effort we have increased our long-knowledge of the impact of *Phytophthora cinnamomi* on grass trees.

We hope that Dr Weste would have been impressed by the community passion for grass trees.

A report on this ten-year study is now available at www.vnpa.org.au/publications/grass-tree-monitoring

Thanks to the contribution of Friends of Brisbane Ranges, Parks Victoria, Deakin University and Victoria University (students) and the many contributing volunteers to this project over many years.

Please help keep grass trees safe – stick to marked tracks and remember to thoroughly clean and sterilise your walking boots with a mixture of 70 per cent methylated spirits and 30 per cent water. • PW

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Are you curious about the natural world? Imagine immersing yourself in nature while we share our love and knowledge of the environment with you.



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Being in the Brisbane Ranges

WENDY COOK, LONG-TIME MEMBER
OF THE FRIENDS OF THE BRISBANE
RANGES AND WILDFLOWER
ENTHUSIAST SHARES THE JOYS
OF LIVING IN 'THE BRISBIES'.

When we decided, 18 years ago, to move out of Melbourne and live near the Brisbane Ranges, a common response was, "Do you have relatives up there?" We had to explain that we were not moving to Queensland, but would be living near the Brisbane Ranges National Park, just west of Melbourne and north of Geelong. We knew we were moving to a special place, one of Victoria's wildflower hotspots, but we still had so much to discover.

We had often wandered in forests of tall magnificent trees, east or north of Melbourne. The Brisbane Ranges is different. The trees are shorter and the landscape drier. We marvel at the way a short walk can take us through a variety of habitats. A forest of stringybarks changes to a hillside covered in grass trees, before we enter a rocky gorge. We can descend from a stony ridge with stunted red ironbarks to a valley lined with creamy-barked yellow gums. In spring, each of these habitats is filled with an amazing array of colourful flowers.

Among my favourites are the grevilleas. There are four species indigenous to the Brisbane Ranges. Rosemary Grevillea is a small shrub with narrow prickly leaves and flowers of dark pink and white, from which long red styles reach. It is found in many places in Victoria. Small-flower Grevillea is less widespread, and only found in a few places in the Brisbane Ranges. This tiny bush has clusters of white flowers with hints of pink.

The other two species of grevillea are more unusual. Golden Grevillea is a taller bush with oval-shaped leaves and chunky furry golden flowers with short red styles. Its stronghold is Gippsland, but there is no connection between the plants growing there and those flourishing in the Brisbane Ranges. The fourth grevillea is extra special, unique to the Brisbane Ranges, and unsurprisingly, named Brisbane Ranges Grevillea. It is one of the holly-leaved grevilleas, rarely reaching a metre tall. It often prefers to grow in drier parts of the ranges, where its shiny green leaves contrast with its densely packed clusters of bright red flowers.



PHOTO: CHRIS CLARKE



PHOTO: CATHY POWERS

The Brisbane Ranges Grevillea is, as the name suggests, unique to the Brisbane Ranges.

All these flowers attract pollinators, including shiny beetles and colourful honeyeaters. Walking slowly and quietly, or sitting in one place for a while, is the best way to observe them and other bush animals. There is always plenty to see, and children, although not so quiet, have a wonderful ability to spot small things that adults overlook. The Brisbane Ranges has many tracks to explore, where you can make discoveries at any time of year, but it is a particularly exceptional place to visit in spring. • PW

Marine Life of Victoria

REEFWATCH COORDINATOR
KADE MILLS INTRODUCES
OUR NEWEST MARINE CITIZEN
SCIENCE PROJECT.

A silvery school of
Skipjack Trevally and
Eastern School Whiting.

I am not what you would call a bird person. Sure, they are beautiful, and the ability to fly is truly amazing and enviable. But the ability to breathe underwater has always had more appeal to me. Immersing myself in water and watching its inhabitants is the closest I will get to exploring another world. If only I did not have to resurface when my tank ran out of air, I could enjoy it all the more.

While the sensation of gliding gracefully underwater is a joy, it is the incredible diversity of marine life and the complex interactions between its

inhabitants (see our Special Species the Victorian Scalyfin on pages 34–35) that keeps me diving back in. However, unlike a birdwatcher, who would often record species they have sighted and may even have a list of birds they are on the lookout for, I could not tell you how many species of fish I have seen after thousands of hours underwater.

That is until I started adding images of some of the diverse marine life I have encountered to the iNaturalist website for to ReefWatch's new project, Marine Life of Victoria. Once I

found a quick and easy way to upload images and add observations, I was hooked. Not only were my images sorted by location and species for future reference, I was also receiving feedback and help with identification of my sightings from experts in museums and institutions around Australia and the world.

At the time of writing, I have added over 200 observations of 99 species. It is estimated that 91 per cent of species in the ocean are yet to be named – just over 300,000 have been so far, leaving three million or more still



(Clockwise from above):
Narrow Snapping Shrimp,
Magpie Perch, and
Southern Keeled Octopus
are just a few of the
incredibly diverse marine
life in Victoria.



PHOTOS: KADE MILLS

waiting. And, given that our marine waters are a global biodiversity hotspot with 30–70 per cent of what is found in the Southern Ocean not occurring anywhere else in the world, and tens of thousands of marine species yet to be discovered, I have a long way to go!

I would like to invite you to join me and many others on our Marine Life of Victoria iNaturalist page. Together we can start a journey of discovery using your underwater images to enhance our knowledge of Victoria's unique marine life.

Turn your images into a legacy

Images uploaded to iNaturalist have been responsible for the discovery of new species and documenting numerous species moving beyond their usual range, and have been used in hundreds of scientific papers.

Every image added to the Marine Life of Victoria project provides data that researchers throughout the world can use. Information gained from your images could influence decision making, as data contributed to this

project is also added to the state government's biodiversity database, the Victorian Biodiversity Atlas (VBA). The VBA is a biodiversity tool used by the Department of Environment, Land, Water and Planning for everyday decision making – it shows where wildlife is now and how this has changed over time. The VBA is a core input to the majority of the Victorian Government's processes and programs that impact native species.

Participating in this project will expand your understanding and identification of marine life. Because, unless you are like me and you have dozens of field guides and taxonomic literature littering your house, it can be extremely difficult to work out what the weird blob that washed up on the

beach is. All you need to do now is upload your image to iNaturalist and wait for the community of experts and enthusiasts to come to your aid. Best of all, once you get confident in the identification of some species, you can return the favour and start helping other users.

Getting started

You don't have to be a diver to join – some of the most amazing finds are things found washed up on the beach or hiding in rockpools. To get started, simply start taking some photos and follow the easy steps in our Marine Life of Victoria 'how to' guide or watch our short videos that walk you through the process at www.vnpa.org.au/marine-life-of-victoria

Elsternwick Park Nature Reserve

GEOFF DURHAM VISITS AN URBAN PARK THAT IS RETURNING TO A MORE NATURAL STATE.

We have all been impacted by COVID-19 and the restriction on how we lived. Personally, I greatly missed Parks Victoria and the Trust for Nature volunteer activities, and also not being able to leave Melbourne for our annual visits to Wilsons Promontory and Wyperfeld national parks. I have also been unable to check out parks for my 'In Parks' articles. However, we were able to exercise outdoors, and I am fortunate to live within walking distance (and less than five kilometres) of Elsternwick Park, including its recently dedicated natural reserve.

The Elsternwick Park Nature Reserve plan involves turning a former golf course to its original wetland state, creating habitat for wildlife and refuge for the community in the urban environment.

Chestnut Teal are among the many waterbirds that are drawn to the wetlands.

Like many urban parks, there is a mix of introduced and native species in the park.

Elsternwick Park is Crown land in the City of Bayside and traditional land of the Boon Wurrung clan of the Kulin nation.

Les Blake in *Place Names of Victoria* says: "Overlander Charles Hotyson Ebdon named his house "Elster" (German, magpie) during 1850s, Elster Creek was so named. 'Elwood' is named after the English poet and historian, Thomas Ellwood".

In the 1960s I lived in Head Street, Brighton, not far from Elsternwick Park. It was then mainly a featureless flat expanse of grass. On the north side were Elster Creek and Elsternwick Park Public Golf Course, Elsternwick Park Sports Club, and the Elsternwick ovals.

West of St Kilda Street, Elster Creek, is a highly modified waterway, and becomes the Elwood Canal west of St Kilda Street. Elster Creek drains forty square kilometres of the south-eastern area of Melbourne, originally into a swamp covering a large part of what is now Elwood. In 1888 the concrete canal was constructed 1.2 kilometres from Glenhuntly Road to Elwood Beach. The swamp was progressively filled. In 1924 Melbourne and Metropolitan Board of Works (MMBW) assumed responsibility and proposed to fill the whole canal, but were deterred by the Great Depression.

The St Kilda Street Bridge over the Elwood Canal is on the Victorian Heritage Register. Designed and constructed by John Monash in 1905, it is the earliest example of a reinforced concrete girder bridge known to survive in Victoria and probably Australia.

PHOTO COURTESY BAYSIDE CITY COUNCIL



PHOTO: LAURIE BOYLE, FLICKR CC



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The former golf course is now a place for the community to enjoy nature in the city.

PHOTOS: GEOFF DURHAM

The catchment of Elster Creek is now suburbia, with polluted urban drainage, and most of the creek is concrete channel or underground. About 1998, MMBW's successor, Melbourne Water, carried out flood mitigation work and Elsternwick Park both north and south was reconfigured and landscaped. A levy bank now diverts flood water from a wetland in the park's north to a large lake in Elsternwick Park South, discharging into a major underground drain to Port Phillip Bay.

The 12-hectare privately operated nine-hole Elsternwick Park Golf Course struggled financially and closed in 2018 after the lease expired and the Council was unable to find a new operator.

The Elsternwick Park Coalition, a set of community groups which became the Elsternwick Park Association, participated in a Council reference panel in 2016/17. This helped the Council form a new vision for the golf course to become an environmentally focussed nature reserve. Considerations included the natural history of the area, the inclusion of culturally significant trees, the identification of specific target species for the park, and the habitat clusters that will support them. Extension of the successful wetland, for nature and flood protection, was a major feature.

In February 2019 the Port Phillip EcoCentre Inc produced a detailed report and fauna strategy for Elsternwick Park North for the Bayside City Council. There is no remnant understory vegetation but an eclectic mix of scattered trees – exotics, the popular 'park' non-indigenous natives including Spotted Gum, Sugar Gum, Gippsland Mahogany Gum, Red-flowering Yellow Gum, and also indigenous River Red Gum. The ground cover is weeds, predominately grasses, particularly Kikuyu.

With its trees and wetlands the park attracts arboreal and wetland birds. I have seen a Butcher Bird, Eastern Rosellas, Magpies, Mudlarks, Crested Pigeons, and many Noisy Miners;

and on the creek, Purple Swamp Hen, Chestnut Teal, Pacific Black Duck, Wood Duck, Eurasian Coot, Dusty Moorhen, Silver Gull, and a White Faced Heron being harassed by Noisy Miners. In the creek are Common Galaxias, Tupong, Short-finned eel, pest Mosquito fish, Rakali (native water rats) and Southern Water Skinks. Mammals include Brushtail and Ringtail possums and microbats, foxes and domestic cats. Often overlooked are terrestrial and aquatic invertebrates.

The former golf course site is currently open as public parkland for recreation use with mowed walkways. Dogs are permitted on leash. In its raw state, it was a big attraction to children who frolicked through the tall grass, rode their bikes, climbed trees and logs, sought hidey-holes under spreading old Moonah trees, and built cubby houses.

With community input, Bayside City Council produced a Master Plan for the nature reserve in March 2020. Its focus is enhancement of biodiversity value and the wetlands. It also provides for a gateway, five picnic areas, two toilets and two formal playgrounds. Extensive works are underway. The golf house has been demolished, and though the high encircling cyclone fence remains, there are strategic entry points. An area within has been fenced off and weeds and unsuitable trees removed. Earthworks for construction of a chain of ponds has commenced.

Golf courses are large areas of open space, but with limited use. The transformation of the Elsternwick golf course to a nature reserve, with enhancement of its biodiversity values and general public access, is commendable.

The Melway reference is map 67, E4. Public transport access is by the number 67 Carnegie tram. A good walk is from Gardenvale Station along Elster Creek and then through the park to Elsternwick station, or down Head Street to the bay and back along Elwood Park. • PW

Easy going ambler retires

VNPA MEMBER **MARY-LOU PHILLIPS** LOOKS BACK ON **GEOFF DURHAM'S** LONG HISTORY OF WALKING IN (AND TALKING ABOUT) VICTORIA'S PARKS.

Geoff Durham finally hung up his well-worn leader's boots at the end of last year after nearly 40 years.

Geoff led his first walk for our Bushwalking and Activities Program in September 1980 while he was President of VNPA. There was obviously no limit to numbers of walkers in those days, as Geoff led 88 participants to Djerriwarrh (Long Forest) Mallee accompanied by two rangers.

On retiring as President, Geoff was able to devote more time to leading walks, and in February 1982, started his monthly 'Introduction Days' later trademarked as 'Walk, Talk and Gawk'. As local history is a keen interest of his, Geoff carried reference books in his backpack to entertain us with background snippets of the area.

In 1998 Geoff added fortnightly 'Daylight Saving Strolls' exploring Melbourne's creeks and waterways, which coincided with our native birds coming home to roost – an added attraction for our bird watchers. He also began leading VNPA bus excursions in 2008.

All the walking up hill and down dale affected Geoff's knees. Steep hills were now out of the picture, but this didn't stop Geoff. The following year he was back on track with 'Easy Going Ambles' which suited his regulars as well – many of us are slowing down!



Geoff lead his last walk on 14 December 2019. He was presented with a photo album, a wonderful record of so many years leading walks with VNPA.

When I asked Geoff what his most memorable walk was, he referred me to an article in *Park Watch* No 179. Some of you may recall it – or even have been with Geoff on the walk. The group was walking in the Brisbane Ranges National Park in 1994 where they fought an escaped burn.

I'm sure Members who have walked with Geoff will have many fond memories. Personally, coming from Sydney, my many walks with him over the years introduced me to Melbourne and its surrounds in ways I would never have discovered otherwise. Thanks Geoff.

Geoff continues to write his regular 'In Parks' articles for *Park Watch*, which feature a different park every edition. (Turn to previous pages 40–41). • PW

A true friend

Geoff Durham was recently honoured with an inaugural Lifetime Achievement Award from the Victorian Environment Friends Network (VEFN). Geoff was the founder and first Convenor of the VNPA-supported VEFN in 1986. He has been involved in establishing and working with many Friends groups through Victoria, and has been a long-time active member of the Friends of Wanderslore and Friends of Wyperfeld.

We would also like to congratulate VNPA members Barry Lingham from Friends of Ocean Grove Nature Reserve who received a Best Friend Award, Margo Sietsma from Friends of Grampians Gariwerd who received a Highly Commended Award, and all others who received a Victorian Environment Friends Network award this year.

Scavenger Hunts!

Get busy with these scavenger hunts on your next family adventure. You can choose the one that is right for your family (hint – one is harder than the other).

Try to find something in nature that meets the description in each box. You could write down what it is, photograph it, draw it or tick the box.

Additional scavenger hunt challenges:

- Set a timer and see how quickly you can finish it.
- Slow down and study each item you find and record something interesting about each of them.
- Repeat the same scavenger hunt in different habitats and see if some items are easier or harder to find in different places. • PW



Scavenger hunt for little discoverers

Something that is yellow	Something that smells bad	Something that smells good	Something smaller than your little toe	Something bigger than you
Something red	A place an animal might live	Something loud	Something that makes very quiet noises	Animal that has 6 or more legs
A stick shaped like a Y	Animal that jumps or hops	Something that flies	A good place to sit	A bad place to sit
Something soft	A small rock	Something sticky	Something wet	Something dry
A leaf that is not green	A big rock	A feather	A flower	A seed

Scavenger hunt for budding explorers

Something that gets its energy from the sun	An animal that gets its energy from eating plants	An animal that gets its energy from eating other animals	Something that gets its energy from eating dead things	Something that gets its energy from eating poo
Something that will still be here in 10 years	Something that will not be here in 10 years	Something that is decomposing	An animal that is making or building something	Something that floats in the air or in the water
Something younger than you	Something older than the oldest person in your family	A sign a person has cared for this place	A sign a person has not cared for this place	An animal that is busy
Animal poo	Something that has been chewed	Something that is growing on something else that is living	Fungi, lichen or moss	Something that could help a seed travel to a new place*
A place an animal might live	An animal that has an exoskeleton**	A place for wildlife to take a drink	Something that lives in the water	Something that lives among the soil or leaf litter

*Seeds from plants can be spread far and wide in many ways such as being blown around, sticking to the fur of an animal and floating away.

**An exoskeleton is a fancy word for a skeleton on the outside of an animal's body. Some examples of animals with exoskeletons are yabbies, crabs, insects and spiders.



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