



NPA *Bulletin*

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National Parks Association of the Australian Capital Territory Inc.



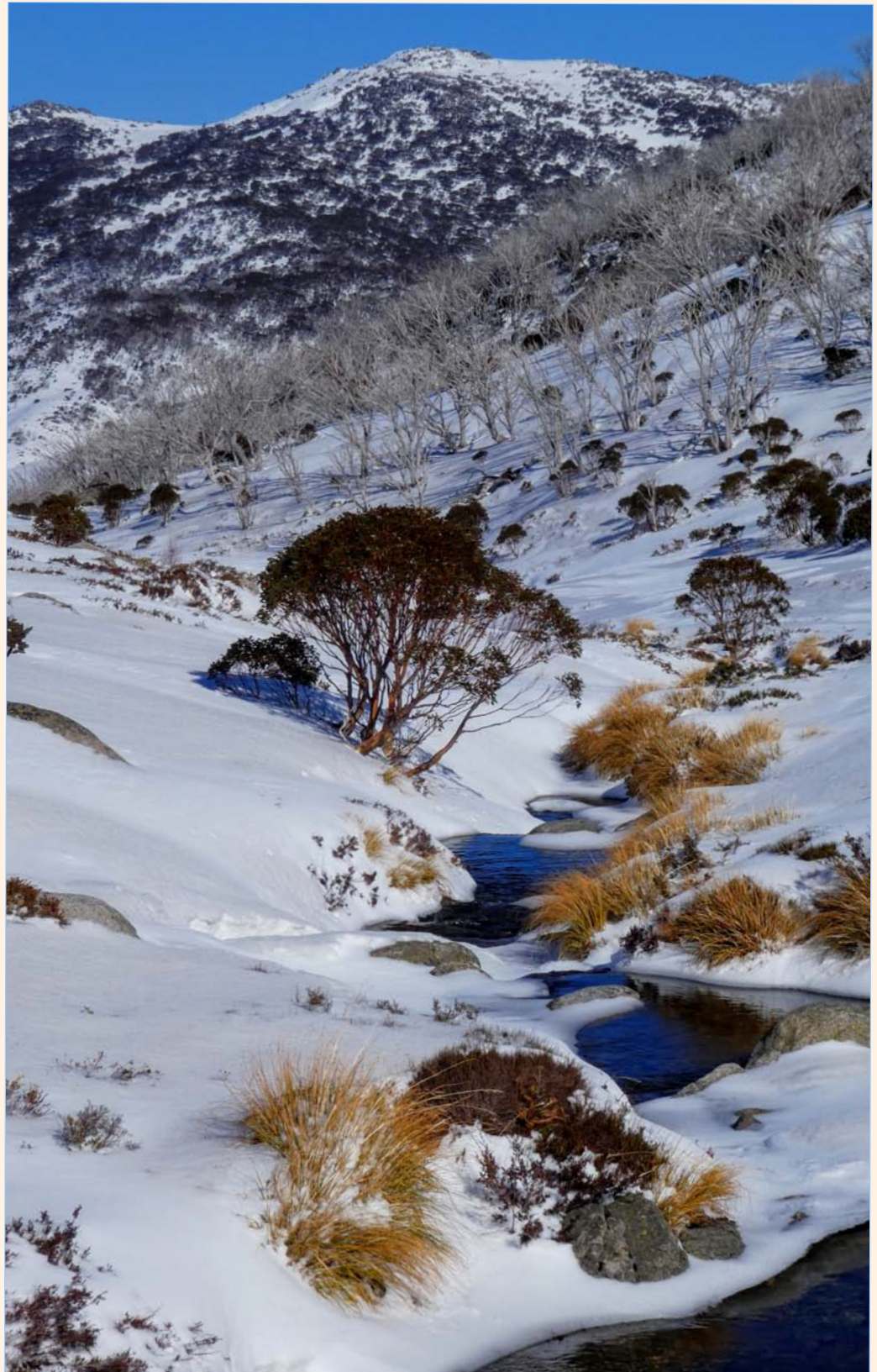
**Two Art Weeks
in 2018**



**Life Membership for
retiring Treasurer**



**Kosciuszko NP
under threat**



Articles by contributors may not necessarily reflect association opinion or objectives.

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From the President

It has been a busy time since the formation of the ‘Grand Coalition’ on feral horses at the 17 July Canberra meeting. A number of actions were suggested to counter the folly of the NSW heritage feral horse legislation and many NPA ACT and Canberra Bushwalking Club (CBC) volunteers have worked hard on events to raise public awareness of the absurdity of protecting feral horses in a national park and the likely resulting severe damage to alpine ecosystems.

As usual, the Environment Subcommittee has been busy writing submissions to the investigations of various government agencies: the Senate inquiry on feral animals; the ACT management plan for the Spotted-tailed Quoll; the ACT nature-based tourism strategy. There are ongoing discussions with the Conservation Council of the

ACT Region concerning joint actions on cat-containment policy in the ACT.

The citizen-science Rosenberg’s Monitor tracking project has been awarded a more than \$29,000 grant from the ACT Government. Congratulations Don and Kevin! This grant, with additional funds from the Bubb bequest, will allow these promising studies to go to the next level.

The Publicity Subcommittee has progressed with text and photo selections for our new membership brochure that is now ready for graphic design. We look forward to its completion in 2019.

Several members are actively involved in the Ginninderra Falls Association’s campaign to gain a better environmental outcome in the cross-border urban development along Ginninderra Creek and the Murrumbidgee River near Ginninderra Falls. This area has recently

been declared to have a high bushfire risk.

We continue our efforts to put nature books in the hands of children and young families. We presented books to the winners of the Friends of ANBG Schools Photo Competition in November.

And last but far from least, we have arranged the annual NPA ACT Christmas Party for 2 December at the Namadgi Visitor Centre. While there you will be able to visit an exhibition of work from this year’s NPA Art Weeks at Gudgenby Cottage.

There are, as usual, reports on these and further NPA activities in this issue of the *Bulletin*.



Esther Gallant

From the committee

Kosciuszko – it's a park, not a paddock!

The campaign

Damage to Kosciuszko National Park (KNP) by feral animals, especially horses, has been ongoing for decades though ignored by politicians setting NSW national park policy. The legislation to give feral horses within KNP protected 'heritage' status may have brought public opinion to a tipping point. Many of our members dug deep to fund opposition to this legislation by the 'Grand Coalition' of NPA NSW, NPA ACT and the Invasive Species Council (ISC). Donations totalling over \$40,000 have been made by NPA ACT members in support of the initial NPA NSW *Sydney Morning Herald* public notice opposing passage of the legislation, the SaveKosci protest walk, the Kosciuszko Science Conference and the ReclaimKosci campaign. In addition, hundreds of NPA ACT volunteer hours have supported these projects. This substantial support has been gratefully acknowledged by our NSW colleagues.

Email exchange between Esther Gallant and Andrew Cox, CEO of ISC and coordinator of the feral horse campaign:

Hi Andrew,

The results are in and NPA ACT members dug deep to support the Ferals Campaign. We challenge others to step up and keep the momentum going.

*Regards,
Esther*

Hi Esther,

This is amazing news and will really allow us to escalate the Campaign. ISC would love to be able to thank the donors for their generosity. I am confident we will start to turn around the debate.

Thanks for all your efforts.

*All the best,
Andrew*

I have also received thanks for our generosity from Alix Goodwin, CEO of NPA NSW, and Graeme Worboys, organiser of the Kosciuszko Science Conference of which NPA ACT was a sponsor.

Donors, consider yourselves thanked by NSW colleagues and all of us in the ACT currently toiling on the campaign.

Campaign staff

Our major donation plus similar ones from NSW NPA and ISC enabled the engagement of campaigners to lead the media and public education efforts. The selection and steering committee – myself, Alix Goodwin and Andrew Cox – interviewed candidates and agreed to hire Richard and Alison Swain from Numeralla.



Alison Swain (left), with a few responsibilities (photo supplied) and Richard Swain (photo by Stephen Worley).

Alison and Richard run Alpine River Adventures guiding paddling trips on the Snowy River in southern KNP and on the Murrumbidgee River. Having seen the damage close up they have been privately campaigning against feral horses in KNP for some time. Now there are emaciated horses dead from starvation along the bank and even in the river. As you might imagine, this is not the kind of wilderness adventure they or their customers want. The Swains seem the perfect advocates for our campaign, having local contacts, lobbying experience and a strong longstanding personal interest in the issue.

The Swains already have many relevant contacts with other tourism operators, local landholders, NSW politicians and the local Aboriginal community and have made a fast start on the media campaign. Recently they have taken print and broadcast journalists on visits to damaged areas and involved other locals in their efforts. Last month Di Thompson took them (accompanied by Annette Smith and me) to view sites in northern KNP where media could easily be taken to see the extent of the damage. They have produced a fact sheet showing the false premise of the many myths stated as facts by the pro-brumby lobby. You can find this on our website.

<http://www.npaact.org.au/res/File/2018/Fact%20Sheet-Reclaim%20Kosci-Myths%20V%20Reality-2018%20October.pdf>

VIP tour to Ginini Wetlands

Throughout August and September Di Thompson contacted Members of the Legislative Assembly, Environment Directorate leaders and others about participating in a trip to view the important wetlands at the head of the Cotter Catchment – the source of 80 per cent of Canberra's drinking water. The Ginini Wetlands in Namadgi have Ramsar designation as they are of international importance and the largest wetland in the Australian Alps.

The arrangements for the day including a bus and 4WD vehicles were made by Parks staff under the direction of Namadgi Manager Brett McNamara. The official invitation to this important trip was extended by NPA ACT. Invitees were personally contacted by Di Thompson to explain the significance of the trip. The ultimate message was that our clean water comes from these wetlands. Hundreds of feral horses are just across the border and if not removed will trash this area as they have already destroyed adjacent parts of KNP. The day was to focus on water and it rained to add emphasis.

About 30 people joined the trip with two MLAs and their staff plus staffers of two others representing all three major parties on board the bus as well as the Director of ACT Parks Daniel Iglesias, and the Commissioner for the Environment Kate Auty. There were also representatives of Icon Water and environmental scientists. NPA ACT members served as hosts, the advance party setting up morning tea at Bulls Head and lunch at Franklin Chalet. Brett was MC both on and off the bus providing entertaining stories from the history of the Mount Franklin area as well as passionate descriptions of the importance of the area to the Canberra water supply.

The best summation of the trip comes from subsequent comments in two of the many thank you emails, first from Di to participants:

Well what a day it was for us all, and an opportunity to see and hear of our catchment history and issues. From the meetings that Esther and I had with many of you, there is a solid understanding of the threat from feral horses that faces our catchment and our wonderful Namadgi National Park and the cost implications for the ACT. So few horses and so

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much damage can occur in a short time.

It was a privilege to have you all together, to talk with you, and hopefully to work together in the future. Of course Brett’s MC role and his stories – both fact and fiction – were amazing. I know most were really fact, as I’ve learned from many others. My thanks to Brett and his team; without them this field trip would not have taken place. I am eternally grateful to them.

For me the highlight demonstration was Brett repeated[ly] squeezing the water from a handful of sphagnum moss into someone’s hands. It was ‘the drop of water’ he so often spoke of.

Second, from Brett McNamara to participants (with permission):

I’m unaware of any other time in the history of the Parks Service whereby representatives from all political persuasions within the ACT Assembly, along with the Office of the Commissioner for the Environment have come together for an onsite briefing. Albeit high in the misty mountains of Namadgi, it was an historic occasion.

Undoubtedly the message around the Cotter as our principle water catchment resonated. The threat from NSW feral horses, not if but when, impacting upon these values was clearly understood. The historical context that we walk in the footsteps of those who have been protecting this catchment for over 100 years was not lost.

Such an event would not have been possible without the support of our community. To that end the lobbying efforts of the National Parks Association and others, was the key to a highly successful and very informative day. The tireless efforts of Di Thompson and Esther

Briefing at Bulls Head shelter – nice day.
Photo provided by Brett McNamara.



After a briefing at Ginini Flats, Namadgi Manager Brett McNamara squeezes water from sphagnum moss while describing the path of a drop of water from here to your coffee cup.
Photo by Di Thompson.

Gallant were powerful. I sensed that those in attendance have discovered a new appreciation for the life of a raindrop, from a cloud to a CBR coffee cup. Perfect.

A subsequent email from Brett:

The issue at hand is not if, but when these horses move into the ACT due to their home range expanding given the lack of any effective control under the NSW legislation.

We regularly monitor for feral horse incursion from the air via a helicopter and ground based patrols along known hot spots. One such ‘hot spot’ is Murrays Gap just north of Mt Bimberi. Murrays Gap is a designated fire management trail linking Namadgi National Park directly with Kosciuszko National Park. We have detected mobs of horses along this management trail less than 3 km from our border.

From Jane Breden, the Head of Marketing, Icon Water (with permission):

It was lovely to meet you on Wednesday and thank you again for organising the day. It was a very good example of how to generate community interest in and support for an important issue. We know at Icon Water that the pristine catchment is one of our

inherited strengths – not something we built or bought, but were gifted. The trip reminded me that we have also been gifted a community that cares deeply about that catchment. We look forward to continuing to work with NPA, Parks and Cons and others to achieve our common goals.

Save Kosci protest walk

Thanks to the tireless efforts of Linda Groom near on 100 Sydney to Summit walkers left Sydney on 5 November with appropriate fanfare (a choir and a

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NSW Shadow Minister for the Environment, Penny Sharp, with Corroboree Frog in Sydney. Photo by Cynthia Burton.

Kosciuszko – it’s a park, not a paddock! (continued)

gigantic Corroboree Frog) and encouragement from many, including NSW shadow environment minister Penny Sharp.

The walk will reach the summit of Kosciuszko on 8 or 9 December so there is still time to get involved. Along the way there was a protest rally in Queanbeyan followed by a lunch with some local politicians.

Cynthia Burton is organising media coverage as the walk progresses.

Register at:

<https://savekosci.org/>

Follow the walk online:

Twitter: ReclaimKosci@Reclaim

Kosci or SaveKosci@SaveKosci

Facebook: Reclaim Kosci or Save Kosci



Supporters preparing to welcome the walkers outside Mr Barilaro’s electorate office in Queanbeyan on 22 November; he wasn’t there! Photo by Sabine Friedrich.

Kosciuszko Science Conference

On 8 November about 150 people gathered at the Shine Dome in Canberra for a conference bringing together environmental scientists and activists for a day of hard facts on the damage inflicted by hard hooves on KNP and other parks. The conference was conceived and organised by environmental scientist Dr Graeme Worboys and sponsored by the

Australian Academy of Science, the ANU Fenner School of Environmental Science and Deakin University. Attendees came from NSW and Victoria as well as the ACT.

Congratulations to Graeme for achieving the almost impossible – organising a scientific meeting in less than 4 months. The 103-page illustrated abstracts of 23 papers were printed in full colour in the conference proceedings which was sponsored in part by NPA ACT. Copies of this publication will be available to members at general meetings.

Participants agreed that the meeting was a tremendous success. Scientists and non-scientists alike understood and appreciated the information presented. Now we have a concise body of written peer-reviewed evidence to cite when facing down the nay-sayers (pun intended here). There was general agreement that there is no minimum number of horses that will not significantly damage fragile alpine and subalpine environments. It was pointed out repeatedly that NSW is out of step with all the other states and territories, which cull hard-hooved animals including horses.

At the beginning of proceedings, attendees were stunned by the announcement that one UNSW scientist planning to present work conducted outside Australia had been forbidden to attend or present at the conference by the NSW Department of Heritage and Environment. It seems that, contrary to circumstances in most democratic countries of the world, the State of NSW does not respect academic freedom. Scientists are outraged.

At the conclusion of the conference participants were given the opportunity to sign a two-page declaration, ‘The Kosciuszko Science Accord’, which begins:

‘We, the undersigned, agree that scientific evidence shows that



Dr Graeme Worboys
Photo by Esther Gallant.

there is a clear and present threat to the natural water catchments and the natural ecosystems of Kosciuszko National Park and other Australian Alps national parks caused directly by thousands of feral horses’.

Two pages of detail followed. It will be presented to the NSW Government.

Many thanks to Graeme for his persistence and determination that this conference would occur.

Esther Gallant

Conference at the Shine Dome.
Photo by Kevin McCue.



IUCN definition of a national park

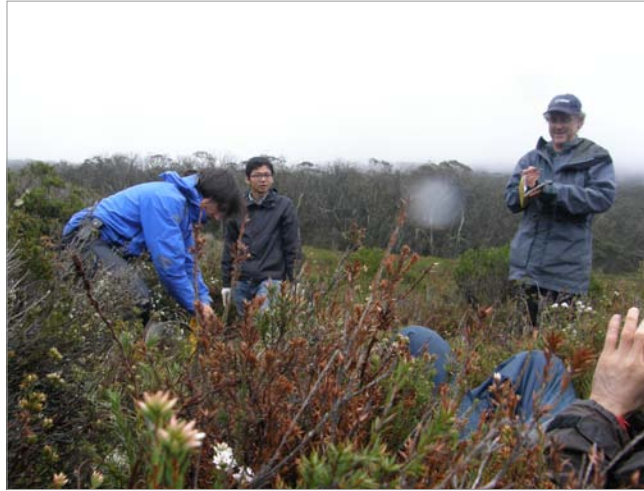
IUCN category 2 defines a national park as a large natural or near natural area set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible, spiritual, scientific, educational, recreational, and visitor opportunities.

ACT peatlands: high value and vulnerable

The mountains of the Australian Capital Territory are home to numerous small wetlands that are unusual in forming peat due to waterlogging, acidity and cool temperatures. Peatlands trap sediment, remove nutrient and store water, gradually releasing high-quality flows to rivers. They are also important as animal habitat by providing green feed and water during dry periods to a range of grazers and invertebrates, as well as supporting species such as freshwater crayfish, frogs and the Broad-toothed Rat¹.

In Namadgi National Park there are around 60 peatlands totalling 575 ha, of which subalpine *Sphagnum* (moss) shrub bogs totals 167 ha. Ginini Flats is the best-known bog complex. The fires of 14–18 January 2003 burnt across almost all of the bogs, killing areas of *Sphagnum* and shrubs, allowing *Empodisma* (twig rush) fen to invade.

Peat forms very slowly, especially in this fire-prone environment. The depth of peat in Ginini is about 1.2 m, and carbon dating shows that it has taken over 3,500 years to build up. So bogs have additional scientific value because their history is archived in the sediment. Studies of cores from Ginini and Snowy Flat use pollen preserved in the peat to see vegetation history, and charcoal to distinguish the fire history. Fire has been a constant, but wet bogs can resprout. A new study of the resting spores of testate amoebae has provided a record of rainfall over the past 2,000 years² (actually depth to water table). This suggests that the end of the 'Little Ice Age' around 1880 saw rising wetness but that this has started to dry in the past 20–50 years. The studies



Coring Snowy Flat bog, ANU and UNSW, 2015.

Photo by Geoff Hope.

conducted show that the peatlands are sensitive to disturbance, especially anything that leads to drainage.

Historical grazing in the Snowy Mountains destroyed large areas of peatlands and damaged many more. For this reason, heavy-hooved mammals such as horses, deer and cattle should be excluded from the catchments using suitable methods. These could include trapping and aerial shooting. The Kosciuszko Wild Horse Independent Technical Reference Group (ITRG)³, which included veterinarians and animal welfare representatives, concluded in 2016 that well-managed aerial shooting was practicable in subalpine environments and was humane in that family groups could be removed together and that death was very quick.

Although this was accepted by the majority in town hall meetings about this topic, strong resistance to this view by pro-brumby groups meant this option was specifically rejected by the NSW Government. The same groups have recently been successful in preventing any effective management of horse numbers in Kosciuszko National Park by convincing the NSW Government to reject the ITRG

recommendations that populations of horses in the park should be greatly reduced. Meanwhile the Victorian Government is using aerial culling to control feral deer and cattle.

The ACT peatlands are a legacy that cannot be quickly replaced once they are trampled and drained. The largest population of feral horses in KNP, probably 2,500 horses, is located within 15 km of the ACT border.

Geoffrey Hope

**Emeritus Professor,
Archaeology and
Natural History, ANU**

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- 3 Lonsdale, M., Cameron, E., Beavis, S. Hope, G.S., Jones, B., Rose, R., Saunders, G. and Welsh, A. 2016. *Final report of the Independent Technical Reference Group: Supplementary to the Kosciuszko National Park Wild Horse Management Plan*, report by the Independent Technical Reference Group to the Office of Environment and Heritage NSW, Sydney. 63pp. <https://www.environment.nsw.gov.au/research-and-publications/publications-search/supplementary-to-the-kosciuszko-national-park-wild-horse-management-plan>



Dunnes Creek just over Murrays Pass in NSW, a former *Sphagnum* peat bog converted into a creek by horse trampling. Photo by Geoff Hope.

Cull of brumbies right*

When NSW Deputy Premier John Barilaro reversed a planned cull of wild alpine horses in May, he was careful to evoke some of our most cherished Australian imagery.

‘Wild brumbies have been roaming the Australian alps for almost 200 years and are part of the cultural fabric and folklore of the country’, he said.

He forgot to mention, though, that the natural environment is as much a part of that folklore – mountains, gum trees, rushing rivers – as the wild horses that are, when all is said and done, an introduced species. And it is this natural environment that is being protected by controlled culls in the ACT and Victoria. At a conference this week, ANU scientist Jamie Pittock accused NSW of ignoring the science behind the difficult decision to cull brumbies.

He listed the numerous types of damage being wrought by the hooved animals, on a landscape that has never evolved to cope with hooves of any kind. It’s the hooves that trample the habitat and create new waterways diverting rain to rivers faster than is good for the environment. These extra waterways gather dirt and other contaminants, polluting rivers and streams, and reducing the supply of usable water.

The horses also trample swamps, which act as crucial filters for rainwater. They destroy habitat for various endangered species. The scale of destruction caused by wild horses can, one academic said, be seen from space.

And yet the NSW government is intent on clinging onto some romantic imagery that, while appealing and indeed part of Australian history and folklore, is completely divorced from the reality of environmental degradation.

No one, least of all the highly trained scientists who recommend that these animals be culled, enjoys the notion of killing animals. In Canberra, residents have on the whole accepted the need for a yearly kangaroo cull, to avoid spiralling populations and ongoing damage to the natural environment. And these animals are far closer to our national identity than a wild horse. Kangaroos are on our coat of arms and our national carrier. There is almost no animal that more closely represents Australia in its uniqueness and diversity. And yet modern life has changed their habitats in urban Canberra, which has put the environment, endangered animals and

plants, and the kangaroos themselves at risk.

And so we cull them, in large numbers, to protect their populations in the future, and ensure the biological diversity of the bush capital. And the cullings have led to positive, incremental results over the past 10 years.

It is often said that those who place the lives of individual animals over the health of ecosystems are operating on a different value system altogether. No one enjoys the idea of killing animals, particularly systematic culling, in large numbers. But it is difficult to detect any foresight in the decision to reverse a cull of an introduced species, especially when the consequences of their spiralling population is so very evident. Environmental scientists are right to call for a carefully considered, scientifically determined controlled cull of brumbies, folklore be damned.

** This editorial in The Canberra Times of 12 November 2018, is reproduced with the paper’s permission.*

Report from the Environment Subcommittee

The key function of NPA ACT is its advocacy for the environment. This role has driven the creation of key parks and reserves, such as Namadgi and Mulligans Flat. The NPA has been fearless in defending the ACT’s reserves from incompatible activities and developments and in monitoring the adequacy of the management of these reserves.

The NPA’s Environment Subcommittee assists the Management Committee with the formulation of NPA’s environmental positions, the drafting of submissions on environmental issues, and liaison with the ACT Government and the ACT Parks and Conservation Service.

Since the previous issue of the *Bulletin*, the Environment Subcommittee has:

- continued to be involved in supporting the ‘SaveKosci/Reclaim Kosci’ campaign, which is fighting to protect Kosciuszko National Park from the severe environmental damage caused by feral horses.
- made submissions on:
 - the Spotted-tailed Quoll action plan. This submission commented on the

lack of priorities and budgets for proposed actions and queried how the actions proposed fitted with the ACT’s responsibilities under the National Action Plan for the Spotted-tailed Quoll.

- the Senate inquiry into the impact of feral deer, pigs and goats in Australia. The NPA’s detailed submission noted that the threats of feral deer, pigs and goats raise important questions about how the federal government can more effectively work with the states and territories and use its powers and resources to better protect matters of national environmental significance. It also commented on the risks to natural biodiversity from these pest species; the limitations of current laws, policies and practices; the effectiveness of control and containment tools; and proposed future threat abatement actions for these species.
- the Senate inquiry into Australia’s faunal extinction crisis. Among other things, the NPA’s submission reflected on habitat loss as the key driver of extinctions in Australia;



the inadequacy of federal environment legislation; the role of research in the management of pest species; and the inadequacy of funding for land management.

- completed the public survey on nature-based tourism in the ACT.
- seen the NPA endorse the NSW SE Forests proposal to stop logging, preserve biodiversity and retrain the workforce.

Membership of the Environment Subcommittee is open to all members of the NPA ACT. If you are interested in helping protect the ACT’s natural environment, please contact the subcommittee’s convener, Rod Griffiths, on 0410 875 731.

**Rod Griffiths, Convener
Environment Subcommittee**

NPA ACT work party summary August – October 2018



Month	Activity	Agency	Participants
August	Moore's Hill – Cootamundra Wattle control. The wattle thicket opposite the Cotter campground was cut/dabbed. Blackberry and briar also treated, plus 14 mahonia. Larger but more scattered plants remain to the north and west. Results need to be checked for effectiveness. Revisit Aug/Sep 2020	PCS	7
September	Orroral Valley: weed control on 'Rabbity Hill': 409 briar cut/dabbed, many verbascum rosettes chipped out, horehound chipped and removed from five locations. Still more to do.	PCS	10
October	Broom control Brayshaws Hut area: 2,413 plants removed from sites 801, 809, 821, 835, 845, 865. A, E. Signs of grazing by kangaroos. No flowering plants seen.	PCS	6

Art Week at Gudgenby Cottage



In 2018 NPA ACT had two Art Weeks at Gudgenby Cottage, the second in October.

An NPA ACT exhibition has been set up at the Namadgi Visitor Centre. There is also a presentation covering Art Week activities over the years in the NVC theatre.

Above. Kevin brought a project from home to work on, with interest from Sonja.

Above right. Walking to the Yankee Hat Aboriginal rock art site.

Right. Setting up the exhibition at the NVC.

Below. Close-up of lichens on a rock.

Photos by Adrienne Nicholson.



Larry O'Loughlin retires

Though we wish him well for his retirement and future endeavours, it is with great regret that the NPA ACT committee records here the recent retirement of the Conservation Council's Executive Director, Larry O'Loughlin. Larry has been a tireless worker for the environment around the ACT. He

undertook the heavy workload of Executive Director with a wry smile and a razor-sharp sense of humour, and has worked closely with the NPA on numerous issues over the past 4 years.

Larry's extensive contacts and understanding of the political environment helped negotiate significant

improvements to the

ACT's environment.

Some recent examples include his

work on zero carbon emissions and the listing of the loss of mature native trees as a key threatening process.



NPA ACT named Environmental Group of the Year

NPA ACT was awarded the 2018 Environmental Group award by the Conservation Council of the ACT Region at the Spring Mingle held on 26 November 2018. Our association has been championing the ACT and region's natural environment for 58 years and has done so across a wide range of fields.

Here are some of the key points in NPA's application for the award.

NPA ACT members work with the ACT community, bureaucracy and governments to:

- influence environmental policy – through lobbying for the creation of conservation areas; detailed commentary on ACT legislation, plans of management, action plans and strategies; representation on consultation panels;

- educate – through seminars and conferences; broad-ranging and popular publications; the support of science by awarding scholarships to ANU and UC science students; a varied speakers program at its general meetings; as well as newspaper articles and columns, letters to the editor, radio and television interviews;
- deliver on-ground work – through monthly work parties in the ACT and the region; citizen-science projects such as the Rosenberg's Monitor tracking program; provision of an all-terrain wheelchair to the ACT community; and a successful outdoor activities program.

Networking, partnerships and cooperation with other environmental groups are key components of

NPA ACT's work. It champions the role of the National Parks Australia Council, the peak body for national parks associations in Australia; the Conservation Council, with which numerous environmental submissions have been co-authored; the connectivity of natural areas throughout the region as a member of the Kosciuszko to Coast Partnership. Our association is currently supporting the coalition of environmental groups fighting to protect Kosciuszko National Park from the severe environmental damage caused by feral animals, especially feral horses.

NPA donates books for children's art competitions



Sarah Sari 11
Don't fly away into extinction

The homes of the Scarlet Robin are being destroyed due to deforestation. The indigenous Noongar people believed that the willie wagtail bird punched the birds nose causing it to bleed and stain the chest. Birds fly away, but the scarlet robin might fly away and never come back.

theme of the competition through drawing, painting or mixed media. They also wrote up to 150 words about the threat and/or their suggestion for a solution.

The artwork was photographed by teachers or parents and submitted online along with a description and an explanation of why the species was chosen. Entries

were received from ACT primary schools, after-school groups and individuals.

The winning artworks from the finalists chosen by a panel of judges were photographed by a professional photographer to be printed either on plastic (for indoor exhibition) or Corflute (for outside exhibition). Prize-winning entries were exhibited at the Australian National Botanic Gardens during the spring school holidays, after the artists had received their prizes from Commonwealth Threatened Species Commissioner Sally Box at the opening launch in the ANBG theatre on 29 September 2018.

This year for the first time, prizes were awarded to ACT artists. ACT NPA was a major contributor, donating many copies of its field guides and the Namadgi book.

We hope to continue this successful collaboration in future years.

Bren Weatherstone,
ACT Coordinator, TSCAC

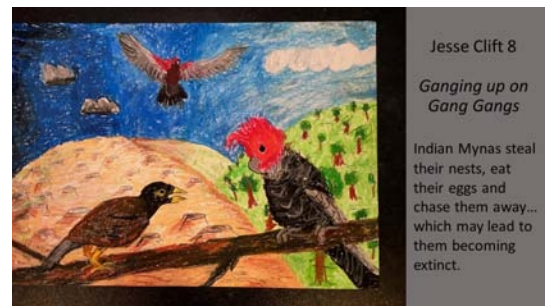
NPA members Bren Weatherstone and Geoff Hope organised this competition.

To see the entries:

<https://www.elixirphotography.com/client/endangered-species-competition-2018>

The ACT Threatened Species Children's Art Competition (TSCAC) 2018 was part of the much larger NSW competition established by Forestmedia Network. Forestmedia aims to raise awareness of the need to preserve and value all native species of fauna and flora – especially those faced with extinction – and to reverse the destruction of native habitat. Through art, it encourages the next generation of environmental leaders to think about how we can take action.

Each young artist (aged 5 to 12) chose a threatened species of plant or animal to research, and then created an original work of art that interpreted the



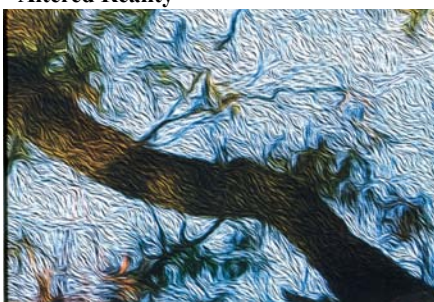
Jesse Clift 8

Ganging up on Gang Gangs

Indian Mynas steal their nests, eat their eggs and chase them away... which may lead to them becoming extinct.

NPA ACT also presented NPA field guides and Namadgi books to the winners of the ANBG Schools Photography Competition at the prize-giving ceremony on 3 November 2018. First prize winning photographs are shown below. Ed.

Altered Reality



Colour



Monochrome



GBRG's seat in the park

Courtesy of ACT Parks and Conservation, a new park bench has been installed beside the Yankee Hat walking trail. The bench marks the contribution of the Gudgenby Bush Regeneration Group (GBRG) to the regeneration of the former Gudgenby pine plantation over the 20 years since the group's establishment in 1998. Situated near the bridge over Bogong Creek, the wooden bench with iron work has a fine view towards Peppermint Hill, one of the sites in the Gudgenby Valley regularly visited by the group's work parties.

Doug Brown

Adrienne Nicholson and Bruce and Maria Boreham try out the new bench on the Yankee Hut trail during Art Week in October 2018. Photo by Hazel Rath.



Roundup and risks: is this still a debate?

Twice in recent months we've heard the media giving particular attention to the herbicide glyphosate, usually with rhetorical questions that implied there may be some untested and uncertain but serious risk in its use by humans.

The first occasion was in August, prompted by the decision of a Californian court to award to a school groundsman US\$289 million in damages against the company Monsanto. The groundsman claimed his non-Hodgkin lymphoma (NHL) was in part caused by his use of glyphosate over many years. Many similar claims are pending. The court's decision prompted a discussion on the ABC's *Health Report* (13 August 2018) with Professor Lin Fritschi, Cancer Epidemiologist at Curtin University and, in 2015, chair of a subcommittee of the WHO which decided that glyphosate is 'probably carcinogenic for humans'.

The second media review was on an ABC *Four Corners* program (8 October 2018) titled 'The Monsanto Papers'. The program presented comments from parties that included users, reviewers, lawyers and Monsanto representatives and a range of views, particularly about the glowing advertising by Monsanto assuring that the product was effective, and safe.

Monsanto had discovered this herbicide in 1970 and marketed it with the name Roundup®. Monsanto's last US patent expired in 2000 and it has largely moved out of agrochemical activities (*Wikipedia*). Its interest in Roundup® was recently sold to the pharmaceutical company Bayer. The 'Monsanto papers' turned out to be a million pages of company material provided to the Californian court that in particular detailed the company's PR programs to reinforce its messages about the product. In contrast many users felt they or their family had suffered from exposure, and some lawyers also regarded the advertising

and usage information as misleading.

Much of the *Four Corners* presentation consisted of claim and counterclaim, with no attempt to inform viewers about independent studies. Nevertheless, the aggressive character of the Monsanto campaign in support of its commercial rights and product claims did much to arouse the deep suspicion of many towards the company and its products, which in previous decades had been stirred from its involvement in DDT and Agent Orange, among other issues.

In contrast to the *Four Corners* program, the website *The Conversation* had earlier the same day presented a summary by a lecturer in pharmacology at the University of Adelaide of recent studies and important reviews under the heading, 'Stop worrying and trust the evidence: it's very unlikely Roundup causes cancer'. The difference was striking – and reassuring.

In the *Health Report*, Fritschi agreed that the Australian Pesticides and Veterinary Medicines Authority (APVMA) classifies glyphosate as 2A, that is, it may be a possible carcinogen for humans. The presenter noted that other 2A items include red meat, high-temperature frying, burning wood, and some shift work; Fritschi pointed out that the classification only recognises a possible link but says nothing about the dosage. She agreed though that there were no current grounds on which the 2A classification should be reconsidered, but stressed that users should observe the safety precautions as set out in a product's Safety Data Sheet; in brief these recommend that exposure of skin and especially eyes to the chemical should be avoided.

Both Fritschi and the APVMA repeated this message in the *Four Corners* program, and next day the Director of the ACT Parks and Conservation Service stated in an email to staff, 'it is imperative that our use [of glyphosate] is only in accordance with

the label instructions and full personal protective equipment is used at all times'. For volunteers who avoid using spray application, disposable gloves and glasses will usually be sufficient.

It's my impression that the many people involved in caring for our heritage of native forests, grasslands and their biota do endeavour to minimise exposure to themselves and non-target plants of course, but are also grateful there is a low-risk way of dealing with the many situations when chemical control of weeds is the only practical method.

It will be enlightening to see how the groundsman's case is dealt with by the US legal processes; one of the core issues may be the traditional conundrum, 'can we say that correlation proves causation', or, how sure does a judge have to be that the groundsman's NHL was not caused rather by red meat or other possible environmental factors? The jury was not required to assess the methodology underlying the WHO ruling.

Glyphosate continues to be marketed by Bayer (replacing Monsanto) and many other companies.

roundup.com.au deals with a comprehensive list of consumer-oriented FAQs.

The APVMA site is at apvma.gov.au/node/13891.

The Conversation article is at theconversation.com (search for *glyphosate*).

Rupert Barnett



Hawthorn in NNP killed by glyphosate. Photo by Rupert Barnett.

National Parks Australia Council AGM 2018

Queensland NPA organised this year's NPAC meeting incorporating the annual general meeting, held in Brisbane. Esther Gallant and I were the two NPA ACT delegates, and I am also the public officer.

Laura Hahn, QNPA Conservation Officer, chaired the first meeting at 8:30 am on Friday and we dived into the future of NPAC – no nominees had been found for the executive and it was seriously mooted for a while that NPAC be converted into 'NPAC lite' until another Christine Goonrey comes along. Every delegate affirmed the value of an annual meeting and a decision was deferred to Sunday's AGM.

Members presented their reports of key issues and after the discussions about common issues, dominated by tourism, we had the first speaker Guy Cooper talking about weed management by volunteers in national parks. In Queensland they do no spraying, and use no Roundup, but their weeds are different to ours in the ACT, amongst them okra and asparagus fern. They use a paint-on gel herbicide Vigilant™.

After morning tea, Peter Johnson, a Principal Conservation Analyst with the Queensland Department of Environment and Science, gave a remarkable presentation on climate resilience and CAR assessments*. The output of a complex mathematical process was a series of Queensland maps for different species colour-coded for resilience. Apparently Victoria has started on the process too, but their system is not as sophisticated. The results have not yet been published.

Julia Stevenson Lyon from the Queensland Parks and Wildlife Service (QPWS) then took us through to lunch with a talk titled 'National Parks Values Based Management Planning'.

After lunch the last of the speakers, Andrew Picone from ACF, gave a polished talk on the Cape York tenure resolution program and management. He praised the Indigenous representatives



*Hard at work at the NPAC meeting.
Photo by Kevin McCue.*

who took the process through to joint management and all that that implied. Andrew thought that joint management was a model others might follow.

The last session, to 5:00 pm, was devoted to the strategic and annual work plan. From the discussion we decided to co-opt Matt Ruchel, CEO of VNPA, one day per week to put together a plan for the pre-federal election campaign. Then we went out to dinner to the Thai Temple restaurant nearby.

As is the tradition, Saturday was devoted to an outing and four members



used their 4WD vehicles to take us to the Guanaba Indigenous Protected Area hosted by the Ngarang-Wal Gold Coast Aboriginal Association. We inspected their impressive plantings and weed and erosion control work and listened to an explanation by Justine Dillon, QPWS ranger-in-charge. The barbeque that followed was superb.

Afterwards we drove up to Mount Tamborine National Park escorted by Len and Laurelle Lowry on a circuit around the Paralilla Block (an outlier of the national park) admiring the rainforest vegetation they have propagated over 20 years, along the way transforming a farm block into a national park. It was a long day by the time we returned to the city and dined at the Peasant Restaurant, a fixed menu Spanish restaurant. Luckily everywhere was in walking distance of our hotel (for bushwalkers that is!).

On Sunday at the AGM, which started at 9:00 am, Bruce McGregor from VNPA agreed to be president, Graeme Wiffen, NSW NPA, stayed on as secretary and Ewen Moore, VNPA, agreed to continue as treasurer, while Kevin McCue will persevere as public officer – that problem is solved for another year! We continued on with the strategic planning till noon.

After a short discussion it was agreed that it was the ACT's turn to be the venue for the next NPAC general meeting and AGM, and the dates 18–20 October were chosen. We discussed a possible theme – Threats to National Parks – and then we thanked Laura and her wonderfully supportive team and dispersed.

Kevin McCue

* Assessment of a reserved area's comprehensiveness, adequacy and representativeness

*Esther admires the revegetation project.
Photo by Kevin McCue.*

Happy presidential duties

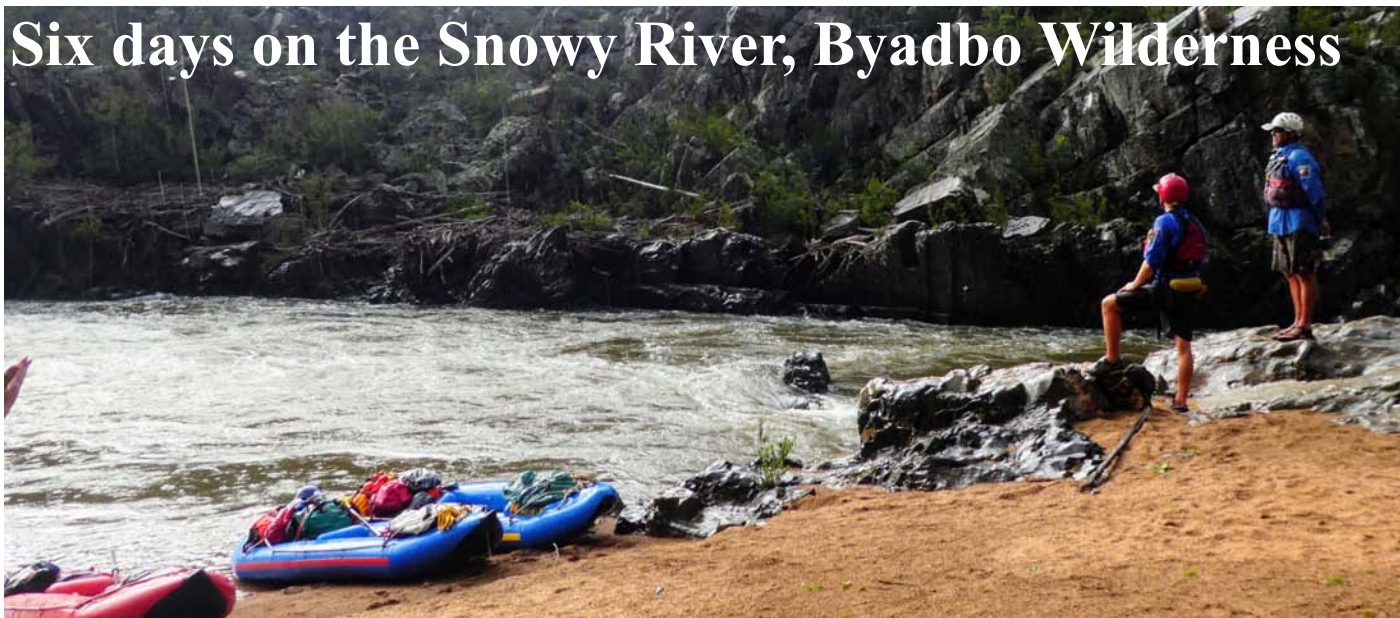


Left. The certificate presentation to NPA's newest Life Member, Chris Emery, who has handed on the Treasurer's role after many years.

Right. A welcome to the evening's speaker, Emily Stringer, recipient of an NPA scholarship for her Earless Dragon study.



Six days on the Snowy River, Byadbo Wilderness



Pause on a river bend. Photo by Mike Bremers.

In the March 2018 issue of the *Bulletin* I described an expedition down the top 150 km of the Murray River, led by Richard Swain (Swainy) of Alpine River Adventures (ARA). That journey was full of anxiety for me as a novice whitewater paddler as we had to pass through the ‘Murray Gates’ with grade 3 and 4 rapids. We got through safely and I decided that I would like to join Richard on one of his commercial tours, which are suitable for beginners, for a more relaxed journey.

The Snowy River 6-day Byadbo Wilderness Expedition was run from 18–23 October this year and each of the eight participants paddled one of ARA’s inflatable kayaks. These kayakers are very stable and can carry the occupant’s camping gear in addition to some of the communal gear. The expedition started in a remote area (the closest town being Delegate) just upstream of the Snowy River Falls and finished about 70 km downstream, where the river runs close to the Barry Way.

Day 1 involved driving from Canberra to Dalgety where we met the

crew, transferred to the river and, after a relatively short paddle, arrived at our first campsite. Each night we camped in a lovely campsite close to the river and we were well fed by Swainy’s offside Chris. During the first night the river level rose due to an environmental flow peak. Day 2 involved a portage around the 4 m high falls. In our case, the portage was lengthy because the higher river level prevented us paddling too close to the upstream side of the falls. First we paddled along the reedy Byadbo Creek for as far as possible, before starting a lengthy 600 m portage of all the gear and kayakers through rough, scrubby country. We camped on the high ground that we called ‘Alcatraz’ as there was no easy way off.

On day 3 we needed to manhandle loaded kayakers down a steep, rocky slope before Swainy and Chris seal-launched us into the river just below the rapids downstream of the falls. What followed for the remainder of the expedition was a relaxed routine of about 5 hours a day on the river paddling on calm pools teeming with platypus, interspersed with grade 1–3 rapids. At each rapid, the lead guide would scout out the best route and call us through. The tail-end guide would be on hand for anyone who got stuck on a rock or who capsized. Fortunately, these were rare occurrences. The rapids provided the right amount of excitement without causing too much anxiety. We finished each day at about 3 pm, allowing for plenty of time to set up camp and relax before devouring Chris’s nightly creation.

The expedition was not just about paddling. Swainy has Aboriginal heritage and is a font of knowledge about Indigenous culture and interpretation of country. He is passionate about this area and this was a highlight of the expedition. He showed us numerous sites and artifacts including scar trees and stone tools. Unfortunately, many Australians believe that our heritage goes back only 200 years but here we were surrounded by signs of continuous Aboriginal occupation dating back thousands of years!

Swainy also is passionate about preserving the environment. He pointed out the damage caused by overgrazing by sheep in the 1880s, leading to massive erosion and loss of topsoil. He also pointed out the damage caused by present-day threats to the environment – feral deer, pigs and horses. On a number of occasions we saw horses that were either dead or skin and bone and close to death (*see photo page 15*).

Overall, this was a great trip. As co-paddler John said ‘I’d highly recommend doing this trip before doing the church buildings and castles of Europe’.

Mike Bremers

For more photos of this trip go to:

<https://photos.app.goo.gl/oTrjLYudDBLQTNpC8>



Swainy with Aboriginal grinding stones. Photo by John Evans.

Dr Bryan Harry Pratt, 1937 – 2018

A friend to the natural environment

Bryan Pratt graduated in science from the University of Sydney in 1959, gained an honours degree from the University of Adelaide in 1961 and was awarded his PhD there in 1964.

He moved to Canberra in 1965 to work for the Commonwealth Bureau of Environmental Studies, before moving in 1974 to a new department as Director of Conservation and Agriculture, to set up the ACT Parks and Conservation Service.

In that role, Bryan administered fisheries, forestry, city parks and wildlife among other activities, before retiring in 1988 to spend more time at his tackle shops and fishing. His book *The Canberra Fisherman* is essential reading for local anglers.

His first day at the Department of Interior saw the introduction of the Canberra Nature Park, a concept based on nature parks in Germany. The idea was for a nature park of all the open spaces of the ACT under a unified management philosophy. He saw the

concept embracing not only small reserves but also green corridors between them, managed as parks. Residents of the suburbs who wanted to explore farther than their backyards could do so and they would become the best protectors of the parks.

Bryan answered to seventeen ministers over the years. Tom Uren was one of them and it was he who declared the Namadgi National Park on 5 June 1984.

One of the tough decisions Bryan made was to remove the last of the feral horses from the mountains. He also stopped the trapping and poisoning of dingoes, an order that didn't survive.

When interviewed by Matthew Higgins in 2000, he noted that:

Hammering me all the time in the background was the National Parks Association. They had bushwalkers, they had ecologists, they had damn good people, the brains of the ACT belonged to the National Parks Association, half of CSIRO and ANU and other people.

That's the challenge we've got coming

up for us now, so we need to maintain staff levels and increase them, we need the funding and we need a pat on the back for the people who are still hammering away with the zeal we had 30–40 years ago. The job isn't finished by a long shot ... The national parks have to go on in perpetuity: it's their real value for society. Once you cut your resources below a certain level they become non-functional or non-useful.

Bryan was a patron of the Ginninderra Falls Association. He played a prominent role in the working party set up by the Belconnen Community Council to look into cross-border issues relating to West Belconnen. The group, which usually met at Dr Pratt's tackle shop, recommended that the area become a national park. This was the initial Proposal for a Murrumbidgee–Ginninderra Gorges National Park.

Compiled from internet sources and Matthew Higgins' oral history commissioned by NPA ACT.

Tony Wood, 1942 – 2018

For NPA ACT members, Tony Wood is best known for his photographs in our *Field Guide to the Orchids of the Australian Capital Territory* but his work went much wider than that. Aaron Clausen, founder of Canberra Nature Map and NatureMapr, describes Tony's influence on our community.

I had heard about this guy called Tony Wood, a contributor to [David Jones'] *Field Guide to the ACT Orchids*, which had been recommended to me. I was amazed that Jean Egan and Tony Wood had such extensive knowledge and experience with our local orchid species. Its pages became worn and well loved – the sign of an amazing book!

During October 2013, I was in a Black Mountain car park and bumped into none other than Jean Egan and the man himself. I had no idea who they were, but we exchanged greetings and I told them I was trying to find some native orchids because I had ridden my bike on top of some Canberra Spider Orchids recently by mistake and wanted to learn more about them.

Tony provided tips and suggestions for where I should head next and I was really amazed with his generosity and willingness to share. He invited me to his regular, annual 'Black Mountain Orchid Walk' to be held later that same month. Of course, I attended with bells

on and it really changed my perception of the bush.

Canberra Nature Map (CNM) was set up as a website in December 2013 with ACT Senior Conservation Officer, Dr Michael Mulvaney, as its first Administrator. Tony and I became friends and by early 2014, he was CNM's very first Category Moderator. His curiosity and passion to help with the cause was so enlightening and it really made my job very easy.

Before long I was privileged enough to learn about the lesser known but ecologically important 'Tony's Gully' orchid hotspot – an area in the ACT absolutely thriving with a wide variety of terrestrial orchid species, first documented by Tony Wood and only passed on to the most discerning of orchid hunters!

As of October 2018, Tony had made:

- 1,099 comments to help guide users who reported orchids
- 3,232 confirmations of orchid sightings
- 396 other general orchid related suggestions

This is a ridiculously massive effort and shows just how passionate Tony was about the natural world.

What I noticed most of all was that people, including myself, hugely respected Tony's opinion. He was CNM's original orchid moderator and his advice regarding the successful or

unsuccessful identification of a sighting would ultimately fly. The other moderators respected him as did CNM's broader user base.

Fast forward to 2018 and due to my family moving house, I found myself handing my old orchid greenhouse over to Tony so that he could make use of it in amongst his impressive collection of orchids and succulents in his backyard. I remember being so pleased that the greenhouse was going to such a good home and giving him a hand to deliver it to his place and get it set up. He was so excited to expand his orchid and succulent collection.

Tony Wood was a man who really impacted my life with his knowledge, passion and generosity. There is some comfort in knowing he was with his loving family in his final moments. His legacy will live on in his remarkable photos which taught so many of us to really look and appreciate the intricate beauty of these amazing plants. He will be missed by all orchid lovers and all those he shared his life and his passion with.

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Yathong Nature Reserve NSW revisited

Dates: 6–20 September 2018.

Participants: John Brickhill (leader),
Isobel Crawford, Sonja Lenz,
Kevin McCue, Deidre Shaw, Di
and Gary Thompson.

Weather: Dry, cold at night.

In the December 2017 *Bulletin*, John Brickhill described a visit to parts of his former work area of 40 years, a nature reserve south of Cobar, NSW, that was listed by UNESCO in 1977 as a Biosphere Reserve under the ‘Man and the Biosphere Programme’. Flat, or gently rolling sandhills, stony ridges, iron-rich red sandy soil, Mallee, Mulga, Gum, Box or Acacia trees, Western Grey Kangaroos and strange bird calls – such a contrast to the ACT. Only the deep blue sky was shared. Yathong Nature Reserve is 1,070 km², almost the same size as Namadgi National Park, and grossly understaffed, with just two field officer positions on-site. Yathong Nature Reserve is one of four adjacent conservation reserves listed as the Central NSW Mallee Important Bird Area. This IBA was so classified because it supports isolated key populations of the Malleefowl and the Red-lored Whistler. It is also a significant area of habitat in New South Wales for other threatened mallee bird species, including the Shy Heathwren, Striated Grasswren, Southern Scrub-robin and Chestnut Quail-thrush.

The country and animals are suffering from drought, now entering its second consecutive summer. The grass is chewed to the ground, the kangaroos are gaunt and reduced to nibbling eucalypt leaves, the water holes (ground tanks) are almost dry. Only the feral

goats, herds of up to six, seemed to have a jaunty step. Goat and rabbit numbers have been reduced so significantly that there is evidence of Cypress Pine and other shrub species regenerating for the first time in more than a decade.

Over the 4 days of our visit John led us around most of the areas visited on the previous trip, with long drives and short walks. We saw most of the plant communities mentioned in the 2017 *Bulletin* article and ticked off 54 species of birds, some heard but not seen. They ranged from the Weebill to the Wedge-tailed Eagle, the smallest to the largest flying birds of Australia, and included Mallee Ring-necks, Blue Bonnets and Striped Honeyeaters. Unfortunately, the extremely rare Malleefowl was not seen.

Few raptors or reptiles were observed, though we did spot three Lace Monitors. One conveniently stalked right through our base at the shearer’s quarters. Echidnas were out and about too. The area is almost unique for hosting Eastern and Western Greys, Red Kangaroos and Wallaroos together.

There were flowering plants and shrubs to admire for their fortitude and hope. Deidre spotted the first orchid, Pink Fingers *Petalochilus carneus*, small and delicate in the understorey of a threatened wattle. Our botanist Isobel cheerfully identified the plants we saw and collected more Red Gum material for the Australian National Herbarium. None of us will ever forget the shiny-leaved Bimblebox *E. populnea*, or the Curly-bark Wattle *Acacia curranii*.

Aboriginal stone artefacts were abundant, all shapes and sizes diligently flaked to make cutting tools, spear heads



Curly-bark Wattle Acacia curranii.

Photo by Kevin McCue.

and axes over the millennia of Indigenous stewardship. We didn’t find sharpening grooves in our short visit but there were many distinctive tree scars used for their coolamons and shields and others probably cut by early Europeans for slab huts, tall and square at top and bottom. John dutifully photographed and mapped their position using GPS.

Two NSW Parks Service rangers from Griffith overnighted one night and were soon engaged over dinner in deep discussion with Di over the three governments’ horse policies. Other nights Gary entertained us all with stories of background political history and analysis.

Sonja and I pondered the rock outcrops and terrain-changing faults, the oldest rocks of metamorphosed sandstone or quartzite of the so-called Devonian period, the age of fishes 420–360 Mya and not now present in the ACT. There are conglomerates and sandstone too, now weathered to a silty red sand which has been driven by prevailing winds into sequences of sand dunes. We also saw volcanics, but armchair geology is difficult from the rear seat of a moving 4WD.

Thanks John and Isobel, a memorable outing in many ways.

Kevin McCue

Cavemen and their women, and God

I wake at dawn to the magic of drifting snow. We’re at Jenolan Caves. But OMG I’ve forgotten how cold snow is. Luckily, it’s slightly warmer inside the caves.

I’m on a scientific excursion to look at ‘palaeokarst’ features at five New South Wales sites: Jenolan, Wombeyan, Wellington, Borenore, and Bungonia caves. It’s all part of the International Speleological Congress, held in Sydney in July 2017. Speleo what?

speleos ...
what a wicked mania
for exploring caves
with lights that dazzle
and wives for scale

My companions are mostly professors of karst (and their wives). I’m fascinated but slow to contribute. Well I’ve been out of it for twenty years. Once upon a time I did do scientific work on

karst hydrology projects. Always enjoyed going underground but was never a sport caver.

isolated
in a far corner
of the bus ...
little gerry
and his private thoughts

The focus of the field trip is on how these caves formed and when. We look at various features suggesting extreme age. Are they perhaps the oldest caves known? There is animated discussion in Czech, Norwegian, American and various other languages.

our leader says
this rock is laminated
bat poo
but some people claim
it’s ‘funnystuffite’

I sort of understand things, can follow the discussion, but my left brain is rusty and creaking. And there are features that I’ve never seen before.

four cupolas
coalescing
in the temple of Baal
we look upwards
in adoration

Jenolan, by the way, is managed by the NSW National Parks and Wildlife Service. And if anyone is interested in the latest research on these New South Wales caves, please let me know. I have the research papers and am happy to lend them.

who made
these great caverns
was God around
in the Carboniferous
or was she late Devonian?

Gerry Jacobson

NPA outings program

December 2018 – February 2019



Bushwalk grading guide

Distance grading (per day)

- 1 up to 10 km
- 2 10 km to 15 km
- 3 15 km to 20 km
- 4 above 20 km

Terrain grading

- | | |
|------------------------------------|-------------------|
| A Road, fire trail or track | E Rock scrambling |
| B Open forest | F Exploratory |
| C Light scrub | |
| D Patches of thick scrub, regrowth | |

Day walks Carry lunch and snacks, drinks, protective clothing, a first aid kit and any required medication.

Pack walks Two or more days. Carry all food and camping requirements. CONTACT LEADER EARLY.

Car camps Facilities often limited. Vehicles taken to site can be used for camping. CONTACT LEADER EARLY.

Work parties Carry items as for day walks plus work gloves and any tools required. Work party details and location sometimes change, check NPA website, www.npaact.org.au, for any last minute changes.

Other activities include ski trips, canoe trips, nature rambles and environment or field guide studies.

Wednesday walks (WW) Medium or somewhat harder walks arranged on a joint NPA, BBC (*Brindabella Bushwalking Club*) and CBC (*Canberra Bushwalking Club*) basis for fit and experienced club walkers. Notification and details are only emailed to members registered for WW. Only NPA-hosted WW are shown in this program. For WW email registration, contact the *Outings Convener*, outings@npaact.org.au.

Transport The NPA suggests a passenger contribution to transport costs of **40 cents per kilometre** for the distance driven divided by the number of occupants of the car including the driver, rounded to the nearest dollar. The amount may be varied at the discretion of the leader. Drive and walk distances shown in the program are approximate for return journeys.

NPA ACT members undertaking walks or other activities in this program are advised they should have PRIVATE HEALTH INSURANCE or, at least, AMBULANCE COVER in case of an accident requiring evacuation by ambulance or helicopter.

Points to note

Please help keep our outings program alive by volunteering to lead outings. New leaders are welcome. The *Outings Convener*, (outings@npaact.org.au) is happy to suggest locations suitable for a walk if you do not have something in mind. Feel free to send in suggestions for outings with a suggested date to the *Outings Convener* by email to outings@npaact.org.au

All persons joining an outing of the *National Parks Association of the ACT* do so as volunteers in all respects and as such accept responsibility for any injury howsoever incurred and the National Parks Association of the ACT, its office bearers and appointed leaders, are absolved from any liability in respect of injury or damage suffered whilst engaged in any such outing.

In voluntarily participating in these activities conducted by the NPA ACT, participants should be aware that they could be exposed to risks that could lead to injury, illness or death or to loss of or damage to property. These risks could include but are not limited to: slippery and/or uneven surfaces, rocks being dislodged, falling at edges of cliffs or drops or elsewhere, risks associated with crossing creeks, hypothermia, heat exhaustion and the risks associated with any of the Special Hazards listed on the *Attendance Record and Risk Waiver Form* provided by the leader at the activity.

To minimise these risks participants should endeavour to ensure that the activity is within their capabilities and that they are carrying food, water, equipment, clothing and footwear appropriate to the activity. Participants should advise the leader if they are taking any medication or have any physical or other limitation that might affect their participation in the activity. Participants should make every effort to remain with the rest of the party during the activity and accept the instructions of the leader. By signing the *Attendance Record and Risk Waiver Form* participants agree that they understand these requirements and have considered the risks before choosing to sign the form and waiver any claim for damages arising from the activity that they might have against the association, the leader or any other participants in tort or contract.

Children under 18 years of age are welcome to come on NPA ACT activities provided they are accompanied by a parent, guardian or close relative who will be required to sign a specific *Risk Waiver for a Child* form.

Leaders to note. Please send copies of completed *Attendance Record and Risk Waiver Forms* to Brian Slee, contact 6281 0719 or brianslee@iprimus.com.au

NPA has a Personal Locator Beacon (PLB) available to leaders. The PLB can be obtained from Steven Forst, contact 0428 195 236 or steven.forst@inet.net.au



A horrible death for this feral horse; starvation is not humane. Photo by Mike Bremers.

Save Kosciuszko Walk

A walk from Sydney to Mount Kosciuszko to help save Kosciuszko National Park from damage by wild horses and other feral animals. The walk started in Sydney on 3 November and will be ending on Kosciuszko on 8 or 9 December.

Why not consider joining the final push to the summit of Mount Kosciuszko?

For more information visit <https://savekosci.org>

1 December Saturday walk

Dr Suzi Bond will be leading a butterfly walk for NPA members at the Australian National Botanic Gardens. Bring binoculars and cameras. Meet at the ANBG Visitor Centre at 1:00 pm. Limit 12 participants. Please contact Suzi so that she can confirm details with you.

Leader: Suzi Bond

Contact: chowchilla29@yahoo.com



1 December Saturday walk Demanding Hut

Meet at Kambah Village Shops car park at 8:30 am. Walk along the Naas Valley from the Mount Clear Campground, mainly on fire trail. Several creek crossings to cool our feet along the way before we reach the picturesque Demanding Hut for lunch. Back along the Naas to the cars in the afternoon.

Drive: 160 km, \$64 per car.

Map: Colinton 1:25,000

Grading: 2 A/B

Leader: Steven Forst

Contact: 0428 195 236 or

steven.forst@iinet.net.au

2 December Sunday NPA Christmas Party

[Note this is a week earlier than usual.]

NPA Christmas Party at the Namadgi Visitor Centre from 11:00 am.

Bring your own lunch, a chair and something to share. Snacks, desserts and some drinks provided. Get in touch with a committee member if you need a lift.

Come at 10:00 am if you want to go for a short walk before festivities begin.

Leader: NPA President / Vice President

8 December Saturday work party and Christmas party Gudgenby Bush Regeneration Group

Meet at the Namadgi Visitor Centre, Tharwa at 9:15 am. Car pool to Gudgenby Valley. Weeding and spraying east of Gudgenby Cottage. Tools provided. Stay for Christmas lunch at the cottage. Bring a plate to share. Some drinks provided.

Leader: Doug Brown

Contact: 6247 0239 or

kambalda@tpg.com.au

16 December Sunday walk Mount Stromlo

Meet 8:30 am at Bushfire Memorial car park, west of intersection of Swallowtail Road and Peter Cullen Way, Wright (UBD map 66, p5). Walk will follow the path north then north-west (parallel to Uriarra Road) to Western Trailhead. Then head south and climb Mount Stromlo (782 m), steep in places, for morning tea at the cafe. Descend on trails to car park. Historic area, excellent views. An 8 km walk, with a climb of 200 m. Lunch for stayers at Holdens Creek Pond, Coombs. Walk timed to avoid hottest part of day. No transport costs

Map: Stromlo Forest Park Trail Map

Grading: 1 A

Leader: Brian Slee

Contact: 6281 0719 or

brianslee@iprimus.com.au

6 January Sunday morning walk North Canberra parks and wetlands

Meet 9:00 am at Edgar Street, Ainslie, in front of shops. Head east to Mount Ainslie Nature Reserve and then north to Dickson Wetlands at Hawdon Street. After a break, follow the storm water channel west to Lyneham Wetlands and then Sullivans Creek to Haig Park. Walk through park back to Ainslie Shops. A 9 km walk mostly over level ground. Sit down lunch at Edgars Inn. Walk timed to avoid hottest part of day.

Map: UBD Canberra Street Directory, Maps 49 and 50

Grading: 1 A

Leader: Brian Slee

Contact: 6281 0719 or

brianslee@iprimus.com.au

19 January Saturday walk Mount Ginini, Ginini Arboretum

We walk south along the Mount Franklin Fire T rail to its junction with Stockyard Spur Fire Trail. From here it is off-track. We descend to the site of the old Forestry Hut on Stockyard Creek before climbing up to the site of the one-time arboretum. We then go up to Cheyenne and Morass Flats, crossing the latter and picking up the old ski run up the hill to the cars. With luck the scrub will not be too bad but bring gaiters and gloves. Distance is about 16 km and the height gained about 400 m. Would appreciate high clearance vehicles. Contact leader by Friday 18 January for start time and meeting place.

Drive: 132 km, \$53 per car.

Map: Corin Dam 1:25,000

Grading: 1 A/B/C

Leader: Barrie Ridgway

Contact: 0437 023 140 or

brdr001@bigpond.net.au

20 January Sunday walk Mount Twynam and Mount Carruthers

Depart 6:30 am and drive to Charlotte Pass. Take the Main Range track to the Snowy River, then to Blue Lake lookout. From here, ascend steeply off-track to a ridge and then proceed to Mount Twynam. After a break, follow the ridge south, with fabulous views in front of us, and then rejoin the Main Range track. If time and energy permits, we'll follow the track up to Carruthers Peak before returning to Charlotte Pass. Book with leader by Saturday morning.

Drive: 420 km, \$168 per car, plus park entry fee.

Map: Perisher Valley 1:25,000

Grading: 2 A/B

Leader: Margaret

Contact: 0448 924 357 or

power000@tpg.com.au



NPA outings program December 2018 – February 2019 (page 3 of 4)

23 January Wednesday walk Joint NPA / BBC / CBC activity

Details are emailed to those on the Wednesday walks email list. Otherwise contact the leader.

Leader: Barrie Ridgway
Contact: 0437 023 140 or
brdr001@bigpond.net.au

27 January Sunday walk Square Rock – Smokers Trail loop

Meet at Kambah Village Shops car park at 8:00 am. A walk through subalpine forest to Square Rock returning along Smokers Trail. The early start, altitude and mainly shaded track should allow us to avoid the heat.

Drive: 75 km, \$30.
Map: Corin Dam 1:25,000
Grading: 2 A/B
Leader: Steven Forst
Contact: 0428 195 236 or
steven.forst@inet.net.au

30 January Wednesday walk Joint NPA / BBC / CBC activity

Details are emailed to those on the Wednesday walks email list. Otherwise contact the leader.

Leader: Mike S
Contact: 0412 179 907

2–3 February Talbingo paddle Talbingo Reservoir

Paddle from 'Sue City' (O'Hares Rest Area) 4 km to the camp site on Talbingo Reservoir. Options for the afternoon and next morning include paddling, swimming or walking up some of the many nearby hills for views over the reservoir. A beautiful location suitable for beginners. BYO canoe or contact leader to discuss options. Transport: \$180 per car. Limit: 8.

Map: Yarrangobilly 1:100,000 or Ravine 1:25,000 and Yarrangobilly 1:25,000
Leader: Mike Bremers
Contact: 0428 923 408 or
mcbremers@gmail.com



10–13/14 February Pack walk Ettrema

Walk from Tolwong Road, descending along Tullyangela Creek to Ettrema Creek. We then walk upstream and leave the gorge via Transportation Spur and Pardon Point. Swimming with packs is required in Tullyangela Creek. Some rock scrambling and patches of thick scrub to negotiate. A climb of 300 m, steep in

places, on the last day. The planned route may be changed if the weather is unsuitable. Contact leader by Thursday 7 February to book on the walk and for more details, preferably by email. Limit of 8.

Drive: 310 km, \$124 per car.
Map: Touga 1:25,000
Grading: 2 D/E
Leader: Philip Gatenby
Contact: 0401 415 446 or
philip.gatenby@gmail.com

17 February Sunday walk Corang Peak

Meet at the Queanbeyan Swimming Pool car park at 7:30 am. Note early start. A walk in the Budawangs from the Wog Wog entrance to Corang Peak which has 360 degree views. Then on to Corang Arch or Admiration Point for lunch. Same route return. If hot weather may go to Corang Lagoon instead.

Drive: 250km, \$90 per car.
Map: Corang 1:25,000
Grading: 3 A/D
Leader: Mike S
Contact: 0412 179 907

18 February Monday walk Lake Burley Griffin–western circuit

Meet at National Rock Garden car park, Barrenjoey Drive, at 9:00 am (UBD map 58, location D7). Follow the path south across Scrivener Dam and along southern shore to Lennox Gardens for morning tea. Then across Commonwealth Avenue Bridge and head west to National Museum for sit-down lunch. Return via north shore. The 14 km walk will only proceed if forecast temperatures are mild.

Map: UBD Canberra Street Directory, Maps 58 and 59; Barrow's Walking Canberra, Walks 53–59.
Grading: 2 A
Leader: Brian Slee
Contact: 6281 0719 or
brianslee@iprimus.com.au

21 February Thursday tour Lower Molonglo Water Quality Control Centre (LMWQCC)

Find out what happens to our sewage on a 1.5 hour morning walking tour of the LMWQCC at the end of Stockdill Drive. The plant is designed to treat wastewater thoroughly so that it can be put back into the Molonglo River for downstream users. This tour will explain the plant's chemical and biological treatment processes. The walking tour includes stairs, uneven terrain, narrow paths and steep inclines. All participants must wear long pants, long sleeves and enclosed flat sturdy shoes. Maximum of 24. Contact the leader by 18 February to reserve your spot and learn meeting place and time details.

Leader: Esther
Contact: 0429 356 212 or
galla001@umn.edu

23 February Saturday work party Fence removal – Glendale area

This will be the first of a series of fence removal tasks in the Glendale area. The fences in question are located in the vicinity of the Brandy Flat Fire Trail towards Reedy Creek. All tools will be provided. Meet at Kambah Village shops at 8:00 am.

Drive: 84 km, \$34 per car.
Leader: Martin Chalk
Contact: 6292 3502 or 0411 161 056

24 February Sunday sculpture walk West Row to New Acton and back

Meet in the London Circuit car park (entry near the Reserve Bank) opposite the West Row Park. Parking is free on Sundays. This will be a gentle 3 km level walk. We will visit some 25 sculptures. You will like some, not others. We will have lunch/coffee at New Acton before returning to the cars.

Leader: Col McAlister
Contact: cvmac@grapevine.com.au or
6288 4171

27 February Wednesday walk Joint NPA / BBC / CBC activity

Details are emailed to those on the Wednesday walks email list. Otherwise contact the leader.

Leader: Philip Gatenby
Contact: 0401 415 446 or
philip.gatenby@gmail.com

2 March Saturday walk Mount Gudgenby

From the Yankee Hat car park climb to the saddle south-east of Mount Gudgenby, then on and upwards crossing rock slabs to the summit. The return route will be via the mountain's south-east face. Mostly off-track, patches of thick scrub and rock scrambling. Distance of about 16 km and a climb of 800 m. Early start needed. If the weather is very warm the walk's destination will be changed. Contact leader by Thursday 28 February, preferably by email, for start time and transport arrangements.

Drive 100 km, \$40 per car.
Map: Yaouk 1:25,000
Grading: 3 A/D/E
Leader: Philip Gatenby
Contact: 0401 415 446 or
philip.gatenby@gmail.com



**2–4 March Relaxed pack walk
Rendezvous Creek Valley**

From Boboyan Road, an easy walk up Rendezvous Creek to camp for 2 nights on a grassy knoll. On second day enjoy the bush surrounding camp at your leisure (bring your sketch pad, camera or Kindle) or walk to the cascades further up the valley for lunch. Return to cars by same route on third day. Contact leader at least 7 days in advance for further details and travel arrangements.

Drive: 95 km, \$38 per car.
Map: Rendezvous Creek 1:25,000
Grading: 2 A/B
Leader: Esther
Contact: 0429 356 212 or
galla001@umn.edu



**9 March Saturday work party
Gudgenby Bush Regeneration Group**

Meet at the Namadgi Visitor Centre, Tharwa, at 9:15 am. Car pool to Gudgenby Valley. Survey African lovegrass and other grassy weeds if suitable ranger staff available to provide preliminary assistance in identification. Weeding and spraying at an alternative site (possibly along Yankee Hat walking trail) if suitable staff are not available. Tools provided.

Leader: Doug Brown
Contact: 6247 0239 or
kambalda@tpg.com.au

**11 March Monday public holiday walk
Northern ACT border**

Meet 8:30 am at Mulligans Flat Road car park, on left and just north of Henry William Street, Bonner. Take shortcut north to Oak Hill and from there follow Canberra Centenary Trail west to One Tree Hill and on to Hall. A scenic 16 km walk with some moderate climbs. Afternoon tea at Hall. Car shuffle involved.

Map: Hall 1:25,000 or Canberra Centenary Trail map, Sections 1 and 2.
Grading: 3 A
Leader: Brian Slee
Contact: 6281 0719 or
brianslee@iprimus.com.au

**17 March Sunday sculpture walk
Northbourne Avenue to Glebe Park**

Meet in the London Circuit car park (entry near the Reserve Bank) opposite the Commonwealth Bank. Parking is free on Sundays. This will be a gentle 3–4 km level walk. We will visit some 40 sculptures and have lunch/coffee at the Canberra Centre during the walk. After lunch/coffee continue the walk to Glebe Park and then return to the cars.

Grading: 1 A
Leader: Col McAlister
Contact: cvmac@grapevine.com.au or
6288 4171



**23 March Saturday work party
Briar control – Sawpit Creek area**

This work party will be our first in the Sawpit Creek area (Orroral Valley). The location of the task is along the Smokers Trail not far from its crossing of the Orroral River. Cut/dab equipment will be provided but your own secateurs would be handy. Meet at Kambah Village shops at 8:30 am.

Drive: 93 km, \$36 per car.
Leader: Martin Chalk
Contact: 0411 161 056

**27 March Wednesday walk
Joint NPA / BBC / CBC activity**

Details are emailed to those on the Wednesday walks email list. Otherwise contact the leader.

Leader: Barrie Ridgway
Contact: 0437 023 140 or
brdr001@bigpond.net.au

**30 March Saturday walk
Mount Palerang**

A lovely walk to a high summit with great views. Off-track there and mostly track back. Good vegetation mix. Some easy rock scrambling. Some light scrub. About 10 km and 483 m climb. We will need high clearance vehicles. Contact leader by Thursday 29 March for start time and meeting place.

Drive: 100 km, \$40 per car.
Map: Bombay 1:25,000
Grading: 2 A/B/C
Leader: Barrie Ridgway
Contact: 0437 023 140 or
brdr001@bigpond.net.au



A big welcome to the Sydney-to-Kosciuszko walkers outside Mr Barilaro's office in Queanbeyan on 22 November (see page 4).

Photo by Sabine Friedrich.

Ordinary versus dynamic bushfire behaviour*

Bushfires are a natural hazard but, according to the ACT Strategic Bushfire Management Plan¹, Australia has experienced a growing number of extreme bushfires since 2001.

Common bushfire behaviour

Some 95 per cent of bushfires burn along the ground in a *long, thin front* that passes quickly at a relatively constant rate of spread. Property tends to catch fire by radiant heat from one burning item igniting another; a 100-m setback from vegetation is generally adequate protection for property in this situation². This type of fire occurs on slopes under 20 degrees and the current Australian Standard was designed for this situation using the McArthur Forest Fire Danger Index (FFDI) developed in the 1960s. This index combines drought level with wind speed, temperature and humidity.

Australian Standard 3959 covers the bushfire safety requirements of *building in a bushfire prone area*, along with the methodology for calculating the relevant bushfire attack level (BAL). There are six bushfire attack levels based on the severity of the building's potential exposure to ember attack, radiant heat and direct flame contact. These are determined by the regional location, the vegetation type and its distance from the building, and the slope on which the vegetation is located.

Bushfire damage in this scenario can generally be reduced by creating an *asset protection zone* (APZ), free from flammable material, around a property. The minimum distance recommended is 20 m but, in a highly forested area, a greater distance is needed, generally up to 100 m³. Nevertheless, according to the AS 3959 2009 Edition, Scope section, there can be no guarantee that a building complying with the standard will survive any particular bushfire⁴. In 2003, 50 per cent of the 500 houses lost in Duffy were more than 100 m away from the forest edge.

Extreme bushfire behaviour

The greatest amount of damage comes from the 5 per cent of fires whose behaviour is dramatically different from the norm, as was the one that devastated Duffy. Records from Canberra Airport show that the majority of high FFDI days come from the north and west, i.e. largely from the Brindabella Range, which attracts a lot of lightning strikes. How a bushfire behaves in these higher slope conditions is not fully described by the four FFDI factors listed above⁵.

Recent research has shown that dynamic fire behaviour can occur on steep slopes of over 24–26 degrees. Areas downwind of these slopes can be exposed to a much greater risk of damage than normal, due to the occurrence of dynamic fire propagation and the development of catastrophic *firestorms*. One example of dynamic fire behaviour (eruptive fire spread) is illustrated in Figure 1.

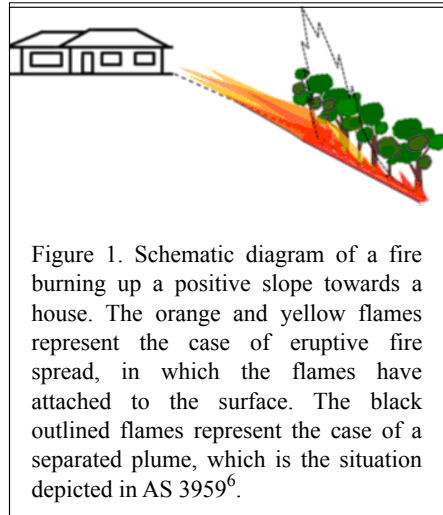


Figure 1. Schematic diagram of a fire burning up a positive slope towards a house. The orange and yellow flames represent the case of eruptive fire spread, in which the flames have attached to the surface. The black outlined flames represent the case of a separated plume, which is the situation depicted in AS 3959⁶.

In the case of eruptive fire behaviour, the spread will be dominated by convective heat transfer (by strong air movement) rather than radiant heat transfer. In addition, such eruptive fires produce a larger area of active flame than the standard fire front, which makes containment of a bushfire more difficult and has implications for determining the appropriate size of APZs.

Whirlwind-driven sideways spread

The 2003 Canberra fires revealed the existence of another unusual mode of fire spread (see Figure 2), in which the interaction of winds, terrain and fire causes the generation of significant fire eddies on lee-facing slopes, which carry the fire sideways instead of straight ahead. This results in extreme wildfires, with a *large area of land being alight* at any one time, in contrast to the relatively thin line of a normal fire.

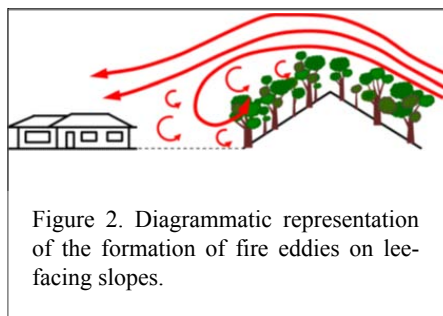


Figure 2. Diagrammatic representation of the formation of fire eddies on lee-facing slopes.

Mass spotting

Under most burning conditions, spot fires, largely caused by airborne embers, can be put out easily and do not contribute much to propagation of the fire. Under extreme conditions, however, spot fires are so numerous that they become the dominant propagation mechanism and the fire spreads as a cascade of spot fires forming a 'pseudo' front. Fire intensities increase greatly when spot fires join together. Dynamic interactions between different parts of the fire and the atmosphere cause the individual fire fronts to accelerate, with a consequent increase in fire-line intensity. *AS 3959 is fundamentally flawed* because these increases in intensity are not currently considered.

Fire thunderstorms

Under conditions of extreme and dynamic fire behaviour, the very large amounts of heat and moisture released from a fire can cause its plume to rise up to several kilometres into the atmosphere. In such a situation, the fire's plume can transition into a towering cumulus cloud – a *pyrocumulonimbus* (Figure 3), a fire thunderstorm which can



Figure 3. Pyrocumulonimbus cloud generated over the ACT during the January 2003 bushfire. Credit: NSW Rural Fire Service.

cause more damage than the fire itself. The combination of strong winds and such dynamic fire behaviour drives embers vast distances that make 20–100 metre APZs totally ineffective.

Current science can identify those areas at greatest risk of catastrophic damage from such extreme fires, which should assist *decision-making on protection versus avoidance* in vulnerable areas. The next step is to determine how close to areas with potential dynamic fire characteristics it is reasonable and responsible to establish urban settlements.

For references for this article see page 22.

* Summary by Ginninderra Falls Association, of the presentation by Assoc. Prof. Jason Sharples at their Spring 2018 Public Meeting.

Bushwalk reports

South Ramshead Range

Date: Wednesday, 22 August 2018.

Participants: Brian Slee (leader), Margaret Power, Max Smith.

Weather: Foggy low cloud and brief snowfall in morning; white mist, high cloud and increasing patches of blue sky in afternoon; mild temperatures; slight breeze.



Snowshoeing along the ridge. Photo by Brian Slee.

Travellers on the Alpine Way from Jindabyne to Dead Horse Gap see bulky Ramshead Range to their right most of the way. The range's southern end, however, can be appreciated from only further east on Cascade Trail – three grand peaks, the first and second unnamed (2,020 m, 2,040 m); with the third, South Ramshead (1,951 m), the

range terminates. Although Ramshead (2,190 m) is a snowshoeing favourite, the range south of it has never been an NPA destination. Like Etheridge Ridge (NPA *Bulletin*, September 2017, p. 26), it has been overlooked too long.

We had set out at 9:15 am from Dead Horse Gap (1,582 m) with the intention of climbing Ramshead, but the weather was bleak. It seemed unlikely there would be any views from the summit, so when the snowboarders' track we were following veered south-west, we continued in that direction. It started to snow, tinselly little shards, then flakes. Ghostly gums shrouded in snow framed the landscape.

Having climbed 400 m, morning tea was declared at 11 am on the crest of the range, south of Peak 2040. We were in a wonderland of snow-blasted rocks. Despite the drought, 2018 is a big snow year and Abbots Ridge on the horizon was buried in snow and bathed in shifting silvery light.

The cloud was lifting, so before climbing Peak 2040, we made an

excursion to South Ramshead. In summer it would have been a bushbashing slog but snow simplifies and turns scratchy obstacles into ice-encrusted works of art. The trig on the peak is a mere post but offered great views of Thredbo River and Chimneys Ridge.

We had earned lunch by the time Max had kicked a path for us up the steep slope to the pyramid trig on Peak 2040. Sitting on a narrow summit in the Snowy Mountains in winter usually means a preoccupation with staying comfortable. But there was no wind and we sat quietly, like we were on the bow of a great ship, contemplating Kosciuszko and Ramshead phasing in and out of brightly lit white mist. Remarkably beautiful.

Departing at 1:15 pm, our attempt to reach the top of Peak 2020 was blocked by difficult terrain. So we headed back downhill, sinking nicely into softening snow, reaching the car at 2:30. 7 km. Little ravens were still clucking about.

Noted in Jindabyne were temporary traffic lights at the Kosciuszko Road – Barry Way intersection and duplication of Kosciuszko Road from there to the Alpine Way, putting an end, one hopes, to morning hold-ups. After the usual stop at 'Sundance', we were back at Calwell at 5:30 pm, having departed at 6:30 am. South Ramshead, we will be back.

Brian Slee

Guthega Ridge and Valley

Date: Thursday, 2 August 2018.

Participants: Mike Bremers (leader), Peter Anderson-Smith, John Evans, Stephen Marchant, Michaela Popham, Margaret Power, Brian Slee.

Weather: Blue sky; cold; breezy in exposed areas.

This was a walk replacing the 15 July NPA outing to Tate West Ridge. Back in the 'noughties' we seldom saw snowshoe tracks, other than our own, in Kosciuszko National Park. It started to change in 2015. On this walk, our first for 2018, the only pronounced tracks seen were those left by 'bushwalkers in snow'.

We departed Calwell Club at 6:15 am in Peter's Subaru and John's Mazda and could not but be made alert to kangaroos by the number of spectacularly bloody carcasses on the Monaro Highway.

Kosciuszko Road, between Barry and Alpine Ways, has been duplicated, hopefully reducing traffic delays in Jindabyne. Also noted: Paddy Pallin has left West Jindabyne. Continuous snow cover began at 1,600 metres; further up there was a solid depth. A breeze wafted through the more-empty-than-full Guthega car park. Magpies are uncommon here but one came a'begging.

Setting out at 9:10, our first section was the routine 400 m trudge up Guthega Ridge. Where the slope flattened out, wind-driven snow, turned to ice, clung to the silver-grey remains

Iced branches, Guthega spur. Photo by John Evans.

of trees burnt in 2003. The antler-like encrustations are not rare, but under a blue sky, in groves of snow gums, there was magic about having our first break among them. More were encountered as we proceeded.

(continued next page)



The Paralyser and Illawong Lodge

Date: Thursday, 9 August 2018.

Participants: Mike Bremers (leader), Peter Anderson-Smith, John Evans, Brian Slee.

Weather: Sunny; high thin cloud later; warm in sheltered areas; windy on ridge.

On 29 August 2015, Max, Peter and I had set out from Guthega with the aim of crossing Spencer Creek and heading further south. However, the creek was impassable and we returned instead via The Paralyser trig, the descent from which was spectacular. This walk was a repeat, in the opposite direction. The descent toward Spencer Creek proved to be equally impressive.

We set out from Calwell at 6:15 am in Mike's Prado, dodging a roo on the way, and arrived at 8:50. 2018 was becoming a big snow year. More had fallen in the week since we last visited Guthega. Complete coverage started at Wilsons Valley and overnight cars at Guthega were half buried. We were on untracked snow, crossing the bridge over Farm Creek, at 9:30 am.

The 400-m climb to Paralyser trig (1987 m) was a bit of a slog in the relatively soft conditions and we did not arrive until 11:30 am. To the north-west, almost the whole route taken on 2 August could be seen. The wind arrived at 11 am but never approached the forecast 55 kph max. A Sydney couple at the trig were skiing from Perisher to Guthega.

Heading south on the broad saddle of Perisher Range, the surface was icy; we climbed rocky tors for views of the Main Range, which looked like smoothed meeringue. From the heights Mike swept us west down to a spot sheltered by healthy young Snow Gums.

During lunch John tried to toboggan on a pack liner but the slope was too soft.

Next was the delightful descent, beginning across an open valley, then through trees where the snow was powdery. We were banging accretions from our snowshoes further down. The Main Range loomed dramatically and Guthrie Ridge (tree-clad and north-sloping, with a straight edge down to the Snowy) began filling the foreground. We veered right before reaching Spencer Creek and picked up a ski track, following it around the base of Perisher Range to Illawong Lodge.

After a break we stopped to talk to two guys heading for the Lodge (two teenagers in tow) and then continued to Farm Creek and back to the car, arriving



Near The Paralyser. Photo by Mike Bremers.

3 pm. 11 km.

Soon after leaving Guthega, we passed a wombat studiously nibbling roadside tufts. At the usual stop at 'Sundance' it was decided that a knife and fork could be used if a pie was too hot (the NZ view was that it was permissible in all circumstances). Interesting to note a batwing-doored Tesla? being connected to one of the NRMA EV chargers at Kalkite Street car park. Back at Calwell at 6:20 pm. Beaut outing.

Brian Slee

Guthega Ridge and Valley

 (continued)

After crunching across open spaces to the peak of the ridge (1,993 m), with expansive views along the range from Mount Tate to Tate West Ridge, we descended to Consett Stephen Pass and sheltered below the embankment to its west for lunch, during which time some

of the group continued further west to a rise for great views as far as Victoria.

The return route was new: down Guthega Valley instead of sticking to the ridge on either side. Deterrents in the past have been the narrowness of the valley and the steepness of its tree-studded sides where the river nears the pondage. It was hoped solid snow would ameliorate these difficulties.

Indeed, the first three-quarters was a dream descent. From Consett Stephen we kept right of the river, crossing a low ridge into a sweeping valley coming down from

Mount Tate. Snow bridges allowed us to keep crossing the Guthega as we continued further down. The river became more exposed, with lovely views along it to Perisher Range.

There were two options from here: stick to the river or contour high on the left slope. We did the latter. While this did not present unusual challenges to the hulkier members of the group, the lightweights were left floundering. It was nice to get back to our starting point above Guthega Pondage, and to the cars soon after 3 pm. 13 km.

After feeding our faces at 'Sundance', we were in Calwell at 6:15 pm. A walk worth repeating, particularly exploring lower-level routes out of Guthega Valley.

Brian Slee



Snow blasting.
Photo by Mike Bremers.

Fiftieth anniversary of the first Moon landing

The first image of Man stepping on the Moon was broadcast by Honeysuckle Creek Tracking Station in what is now Namadgi National Park on 21 July 1969.

In 1960, the United States of America and Australia signed an agreement under which Australia established and operated a number of tracking stations as part of worldwide networks under the control of the National Aeronautical Space Administration (NASA). Two tracking stations and a geodetic observatory were located in the ACT within the park area.

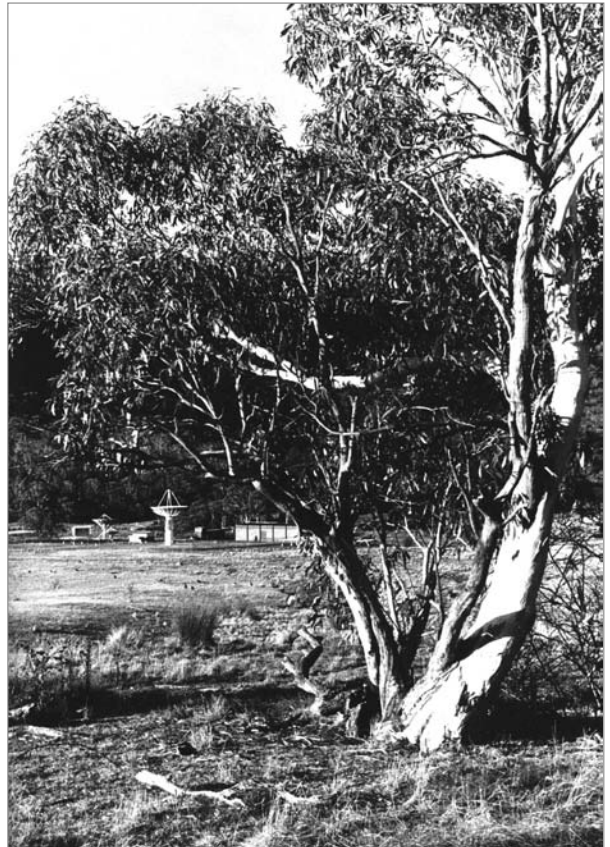
The three sites are now on the ACT Heritage Register:

- Honeysuckle Creek Tracking Station (1967–1981) was used for the Manned Spaceflight Network. It is most famous for receiving and broadcasting footage of the Apollo 11 Moon landing and the first images of human footsteps on the Moon in July 1969.
- Orroral Valley Tracking Station (1965–1985) was the largest tracking station in the Southern Hemisphere with a workforce of about 200. Used for the Space Tracking and Data Acquisition Network, it tracked satellites 24 hours a day every day for 20 years.
- Orroral Geodetic Observatory (now decommissioned) was one of two geodetic observatories in the Southern Hemisphere between 1974 and 1999.

Its functions were transferred to the Mount Stromlo Observatory in 1999. It was Australia's primary geodetic facility, boasting caesium atomic clocks providing Australia with its official time, and a range of sensitive instrumentation catering to Satellite Laser Ranging and Global Positioning Systems, enabling measurement of the Earth's geoid with millimetre accuracy.

The 50th anniversary is expected to draw many visitors to the former space sites within Namadgi. The ACT Parks and Conservation Service has been successful in securing funds for a capital works project to upgrade and enhance the visitor experience at these historic precincts. This project will see upgrades at the three sites and recognise the key role played by the former Honeysuckle Creek Tracking Station through:

- a permanent memorial at Honeysuckle Creek to celebrate the 50th anniversary of the Apollo 11 mission and Man's first steps on the Moon



Orroral Tracking Station. Photo by Fiona MacDonald Brand.



The geodetic dome above Orroral Valley.

- telling stories of the long history of Aboriginal habitation in the area, through looking at how the stars have shaped culture, with relevant Indigenous storytelling integrated within the works and a storytelling phone app.
- improving the visitor experience at the former Honeysuckle Creek Tracking Station, the former Orroral Valley Tracking Station and at the Geodetic Observatory
- highlighting the relevance of the sites to each other, showing their geographical relationship, and improving wayfinding at the sites.

The works will be completed in time for the celebrations on 21 July 2019.

Brett McNamara

Ordinary versus dynamic bushfire behaviour *(References for the article on page 19)*

- 1 <http://esa.act.gov.au/wp-content/uploads/The-ACT-Strategic-Bushfire-Management-Plan.pdf>
- 2 ACTPLA, Planning for Bushfire Risk Mitigation General Code: March 2008.
- 3 <http://www.as3959.com.au/bushfire-attack-level/>
- 4 https://infostore.saiglobal.com/en-au/Standards/preview-122340_SAIG_AS_AS_275109/
- 5 Ibid.
- 6 Sharples, J.J. Risk implications of Dynamic Fire Propagation – A case study of the Ginninderra region, 2017. <http://ginninderra.org.au/Sharples-Fire-Report> Most of the section on extreme bushfires is from this work.

Conservation issues in the Marquesas Islands, French Polynesia

This is not an account of a heroic tramp in remote terrain, compass in hand. Indeed, we travelled in some luxury. Our vessel did, however, berth alongside some of the world's smallest quays, as we travelled, metaphorically, in the wake of countless island-hopping schooners (*goélettes*) of earlier years, loading bags, sacks, drums and crates of produce from tiny villages, and delivering essential supplies unavailable in any other way. Where no quay existed, barges and lighters handled the freight, and once we were ourselves manhandled like sacks of copra as we struggled to get on and off the barge in heavy swells.

We travelled to the Marquesas Islands in the Tahiti-registered *Aranui 5*. The 15 Marquesas Islands, six of which are populated, are part of the autonomous overseas territory of French Polynesia. All inhabitants are French citizens. The islands lie 1,500 km NE of Tahiti, and it took us two days sailing to get there from Papeete. There were 9,346 Marquesas islanders at the August 2017 census, making their living from farming, sending surplus produce by the *Aranui 5* or her sister freighter for sale in Tahiti. They make and sell beautiful handicrafts (bone, stone and wood carvings and printed *tapa*), to the tourists who disembark to a genuinely warm and musical welcome at each stop.

We travelled with 160 other passengers, from France, Germany, Australia, New Zealand and a dozen other countries. Through our daily organised trips on-shore, we managed to learn enough about the natural environment, and the agricultural economy, to realise what a lot we didn't know. For example, we had expected lush tropical vegetation, but this was mostly limited to the deep river valleys.



Dawn light, Hiva Oa.

We later learnt that this is because the prevailing easterly trade winds have passed over the cold Humboldt Current. We surmise that the air mass is cooled and therefore cannot pick up sufficient moisture (see 'Marquesas Islands' in Wikipedia).

We had stocked up in Papeete's single but excellent bookshop with books on the bird life and settlement history of the Marquesas. The *Aranui 5*'s library supplied other invaluable material. This included Herman Melville's fictionalised autobiography based on his month as a fugitive sailor on the island of Nuku Hiva in 1842¹, and Thor Heyerdahl's account of his stay during 1937–8, on Fatu Iva².

Peopling the Marquesas

The first people to arrive in what the islanders call 'the land of men' were Polynesians from further west, continuing the migration that had originated from Southeast Asia. They arrived about one thousand years ago, in double-hulled canoes that could sail against the prevailing easterly winds by the process of shunting, i.e. changing the position of the inverted V-shaped sail³. They brought with them their food plants (e.g. breadfruit, taro, coconut and plantain), their dogs, pigs, chickens and the Polynesian Rat, *Rattus exulans*. These mammals were the first to arrive in these islands, and undoubtedly the rat in particular had a devastating effect on indigenous birds and other fauna.

From 1774, further ecological transformations were associated with the arrival of European explorers, whalers, and traders in sandalwood. The Spanish were the first Europeans to reach the Marquesas, from Peru in 1595. It's not clear which European visitors introduced goats and sheep. Goats are today hunted on horseback, and are a standard part of the islanders' diet. Horses were introduced from Chile in 1857 and are relied upon to bring coconuts down from upper hillsides to dry for copra.

Exposure to unfamiliar diseases was among the causes of the huge decline of the



Loading people and produce, Fatu Hiva.

human population of the Marquesas, from an estimated 75,000 at the time of Captain Cook's visit in 1774, to only 2,256 in 1926. There is ample archeological evidence in the Marquesas of much larger, now abandoned, human settlements. Indeed, overgrown foundations of buildings and carved stone *tikis* abound. Today the population has recovered to exceed 9,300 Marquesans living on the Islands, with perhaps a similar number living elsewhere.

Alongside this resurgence has come a cultural renaissance, inspired by Monsignor Hervé-Marie Le Cléac'h, appointed Catholic Bishop of the diocese of Taiohae in 1970. He recognized the rich culture of the Marquesans, which had been suppressed by earlier missionaries. Keen for young people to rediscover their heritage, he introduced the Marquesan language into the liturgy. The distinctive nature of church interiors, redolent with local sculptures, reflects his commitment.

The indigenous Polynesian population of the Marquesas had occupied their lands for 600 years before the arrival of the Europeans, whereas the Indigenous people of Australia had occupied their continent for some 60,000 years. Nevertheless, the effect of the first contact with the Europeans has striking parallels.

But in Australia, the European settlers became numerically dominant, and now form the great majority of a much larger population (the continent had a population of around one million

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Conservation issues in the Marquesas Islands, French Polynesia (continued)

inhabitants in 1788, and has 25 million today). By contrast, in the Marquesas, while there has been some intermarriage, the size of the present, predominantly Polynesian population is much smaller than that of a couple of hundred years ago.



Fruit for tasting, Ua Pou.

The largest settlement is Taiohae on the island of Nuku Hiva. It's the administrative seat, with just under 3,000 people. But most people live in small villages dotted around the coasts, where young people have to learn to live an isolated life with very limited opportunities. Nevertheless, all are linked to Facebook, and the implications of this are not easy for outsiders to comprehend.

Ecological changes after Polynesian settlement

The history described above has left the islands with a variety of ecosystems. These include the almost bare rock of volcanic plugs, and steep scree slopes, to the lush tropical forests in the valley bottoms. Ua Huka has extensive grasslands, while grey-green acacias have taken over extensive stretches of hillsides on several islands. We don't know the origin of this shrub, but were told it had been introduced.

Nevertheless, the deep valleys of Ua Pou remain clad with fruit-bearing trees, and the women of the village of Hakahou put on a generous spread of many different fruits for us to taste. Among others were Tahitian mango, guava,

Explanatory sign about endangered Blue Lorikeet, Fatu Iva harbour.

pawpaw, limes, bananas, starfruit, pomelo, pineapple, noni (Indian Mulberry) and of course the staples breadfruit and coconut. This wide range of fruits includes those introduced and successfully acclimatised during the last two centuries. Market stalls have all sorts of jams, pickles and honey for sale.

An unexpected source of information about the original vegetation is Melville's *Typee*. After jumping ship in Nuku Hiva, Melville set off inland with a fellow deserter in 1842. After a gruelling few days struggling through steep, forested mountain gorges, they spent some weeks with the then occupants of one of the river valleys. His descriptions of the villagers, still in their dignified and tattooed splendour are unforgettable and uniquely valuable. Whether his descriptions of tame and colourful 'bright and beautiful birds' (Chapter 29) is reliable is dubious.

A search of websites indicates that there were fifteen endemic terrestrial bird species in the Marquesas. Of these, three are already extinct; three are endangered, and five are critically endangered⁴. In part, this is because of introduced birds. The Black Rat, *Rattus rattus*, known as the ship rat, is also to blame.

To take one example, the Blue Lorikeet, *Vini ultramarina*, once widespread throughout the archipelago, is now limited to the island of Ua Huka. Yachties who land are faced with an outsized poster warning them to take precautions to prevent rats accessing the shore. Here, we watched a little, specially trained terrier sniffing around the unloaded cargo, on the lookout for the Black Rat. We met a young woman from Oxford University, visiting as part of a research project investigating the adequacy of current measures to exclude the Black Rat.

Elizabeth's heart-stopping experience was on Ua Huka. After visiting three small museums (one on wood crafts, one on petroglyphs and one on sailing craft) our party was returning to the harbour in

a convoy of 4WDs. Gazing from the car over grassy hills towards the ocean, she spotted a kingfisher 200 metres away, unmistakable in size and shape, its bright blue back glinting in the sun, flying parallel to our vehicle. The rare Marquesan Kingfisher, *Halcyon godeffroyi*, is known only from restricted habitats and is critically endangered. But it wasn't a mirage, since her companion spotted it too. Our bird books list this type of locality as one of its habitats.

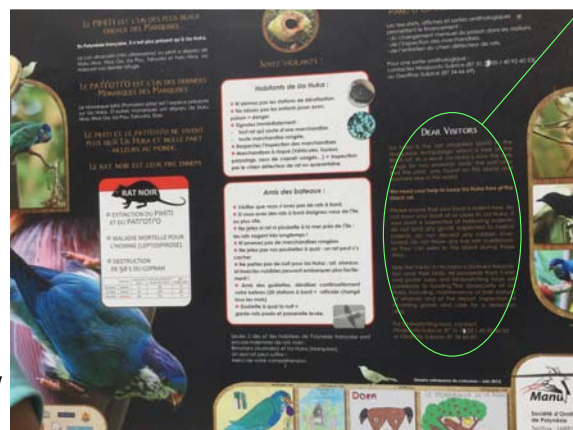
Implications for conservation, of nature and heritage

The poster campaign to save endangered bird species from extinction was the most obvious example of raising public awareness of conservation issues.

The further spread of Black Rat may also disrupt existing ecosystems in other ways. It's been suggested, for example, that the disappearance of trees from Easter Island was not caused by the overuse of this resource by humans, but by the consumption of tree seeds by plagues of rats.

A wide range of tropical fruits and vegetables is produced for local use, and some we saw being carried between islands by the *Aranui 5*. On Ua Huka we tasted many different fruit in an arboretum set up by a former mayor, run on a shoestring and now somewhat neglected. We saw plantations of a variety of mangoes and of citrus fruits, necessarily fenced from goats. Vanilla had been recently established in a couple of small enclosures.

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DEAR VISITORS

Ua Huka is the last inhabited island in the Marquesas Archipelago which is free of the Black rat. As a result, Ua Huka is now the only refuge for two endemic birds: the *piti'oti'o* and the *pihiti*, only found on this island and nowhere else in the world.

We need your help to keep Ua Huka free of the black rat.

Please ensure that your boat is rodent-free, do not moor your boat at or close to Ua Huka, if your boat is suspected of harboring rodents; do not land any goods suspected to harbor rodents; do not discard any rubbish overboard; do not throw any live rats overboard, as they can swim to the island during three days.

Help the 'Vai ku' i te manu o Ua Huka Association save their birds: All proceeds from T-shirt and poster sales and birdwatching tours will contribute to funding the biosecurity of Ua Huka, including, maintenance of bait stations at wharves and at the airport, inspection of incoming goods and care for a detection dog.

For birdwatching tours, contact Hinapootu Sulpice: 87 31 7 05 / 40 92 60 53 or Geoffroy Sulpice: 87 34 66 69.

Conservation issues in the Marquesas Islands, French Polynesia (continued)

Articles in magazines published elsewhere in French Polynesia advocate the development of high value agricultural and horticultural produce for export, as well as for the local cuisine, and emphasising the clean, green characteristics of the environment⁵.

Clearly the conservation of specific ecosystems in the Marquesas will need to go hand-in-hand with other uses of the land and marine environments, and to take account of local cultural practices. For example, the popular practice among young Marquesan men of hunting goats brings to mind the power of the hunting and fishing lobby in the Australian High Country, and of the commercial interests of deer farmers in the Southern Alps of New Zealand!

Conservation issues in the atolls

We should briefly mention the atolls that we called at on the way to and from the Marquesas. Fakarava is the second largest atoll in the vast Tuamotu Archipelago: 60 km by 21 km, with a land area of merely 24 sq km. Three small villages are confined to the north-

eastern edge of the lagoon. Fakarava benefits from EU-funded conservation for both natural and cultural heritage. One third of Fakarava's total area is a UNESCO Biosphere Reserve.

Fakarava's unspoilt tranquillity contrasts with the intrusive exploitation of Rangiroa atoll and of Bora Bora. We took an outrigger canoe through the extensive lagoon within the reef which circles Bora Bora's massive volcanic rock core. Five tourist hotel complexes occupy much of the inland shore of the atoll, consisting of overwater *fales*, some two storeys high. They are ugly symbols for one of the main sources of income throughout French Polynesia: tourism. Yes, the swimming, alongside stingrays and sharks, was wonderful, and although the coral was predominantly grey, many colourful fish were managing to survive.

In conclusion

Paul Gaugin spent his last years on Hiva Oa, and although he found it inspiring and magical, it was no paradise for him. The Marquesas Islands are unutterably beautiful, but in their conservation issues, they share problems that are familiar to places close to home.

Elizabeth Teather and David Teather

Photos by Elizabeth and David Teather:



Acacia-clad hillsides, Oa Pou.



Volcanic peaks, Nuku Hiva.

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All that's white ...

...may not be a Cabbage White.



Cabbage White, *Pieris rapae*.

Caper White, *Belenois java*.

Photos by Rupert Barnett.



PARKWATCH

*News from state-based associations
and agencies.*

About wilderness

Why wilderness?

Time and again, surveys have shown that Australians overwhelmingly support the protection of our wilderness. Yet even with a magnificent system of national parks, much of the nation's wild country is still exposed to 'development' of all kinds. Because governments and industry cling to the suspicion that our wilderness must hold latent opportunities for financial gain they are reluctant to stand these lands aside from commerce. Setting wilderness apart is a gesture of humility and respect towards the greater world: it honours nature. In the market place of our consumer culture, fuelled by hubris, it is remarkable that it has been done at all.

What we need is a reminder that our human nature was forged when nature dominated our daily existence. By psychology and by temperament we are poorly suited to the rapidly changing technological world that we have so recently constructed around us. Even now, when humans are fast changing most of the Earth, we still like to have plants and pets in our homes, we love gardening and being outdoors, we thrill to films, images and books of nature and adventure, we crave 'peace and quiet'. Nature remains a counter to materialism and vital to our spiritual well being.

As the American philosopher Henry David Thoreau wrote: 'We need to witness our own limitations transgressed, and some life pasturing freely where we never wander'. Wilderness is where we came from; we sever the connection at our peril. And yet the connection is threatened. Our remaining wilderness is indeed the 'last of lands', since the most fertile soils, the most productive forests, the most useful coasts, the most accessible waters and the richest rocks have all been harnessed for our practical wants. To be effectively conserved, Australian landscapes, ecosystems and biodiversity will need to be protected across all lands and waters, even those already highly modified. But if we seek to live in harmony with our world then wilderness, occupying the most natural end of the environmental spectrum, will remain the rock to which other conservation initiatives are anchored. We have the power to bend the whole planet to our will, but wilderness is the only land use where we choose to say: this is for nature, first and always.

Irreplaceable benefits

Our ability to retain wilderness is a key indicator of whether our management of the Australian environment is ecologically sustainable. We have lost so much, but there is hope, if only we can get governments, citizens and opinion leaders to understand the undeniable and irreplaceable benefits of wilderness.

Wilderness holds a genetic store of unimaginable wealth. Only in wilderness could the Wollemi Pine (*Wollemia nobilis*) remain unknown for 200 years of European occupation. In the relative stability of the deepest canyons of our largest forest wilderness, these 30-metre trees survived 100 million years of climate change. Their discovery brought home to the world that Australia's wilderness contains biological treasures of great importance to science and society. Opportunities yet to be grasped in our wild places include examination of the medicinal properties of native plants known to Aboriginal people, such as certain grevilleas, and opportunities for improving pasture contained in the genetic resources of our rapidly diminishing native grasslands.

The significant variation in altitude, soil and terrain in the wilderness areas on Australia's eastern seaboard may provide the essential opportunities for wildlife to relocate in response to global warming. The rare and isolated plant populations and ecosystems of today are the survivors of previous warmer and wetter climatic conditions. They may be essential to the ecosystems of tomorrow.

Wilderness provides opportunities to study responses to climate change in environments where other types of disturbance are minimal. Such studies may enable scientists to recommend appropriate measures for wildlife survival in fragmented habitats where extinctions are likely, and how to adapt fire management and farming practices to a warmer world.

To cease building wilderness-flooding dams, Australians need to stop wasting fresh water. It is more important than ever to stop clearing native vegetation, reverse soil erosion, tree dieback, river salinity and salt scalding of agricultural lands, to cease pesticide contamination of food crops and contain urban pollution and sprawl. Wilderness, the ultimate self-sustaining natural system, provides the necessary inspiration for an ecologically sustainable society. Its undisturbed catchments supply a higher quality, more constant water yield than disturbed

catchments. Wilderness also reinforces the viability of freshwater native fish populations and other aquatic life.

The best opportunities for solitude and peace are found in wilderness. Wilderness has an enviable track record as a source of spiritual renewal and in providing insights into humanity's place in nature. Wilderness offers protection to the 60,000-plus years of Aboriginal history by helping to keep cultural heritage sites protected, isolated and secret, in their original context. Wilderness has enriched and continues to enrich all our lives.

Wilderness and the future

In April 1851, giving a lecture in Concord, Massachusetts, Thoreau put the case for 'Nature, for absolute freedom and wildness', crystallising his message near the end with these famous words – 'in Wildness is the preservation of the World'.

What Thoreau was talking about was the way he believed wildness could provide balance in the lives of a people whose environments were increasingly being affected by the unrelenting march of progress. Tapping into the wildness he believed was within us all, could provide relief from the blighted urban and rural landscapes of industrial civilisation. Having vehemently argued how important wildness was Thoreau urged its protection in parks and preserves for inspiration and our true recreation. A century and a half later the need for the balancing role of wildness in our lives in the sense argued by Thoreau is greater than ever. But, in our current situation, where environmental modification threatens to destroy our ecological life support systems, has wilderness even more to offer?

The burgeoning industrial society from which Thoreau suggested we should seek relief has now reached a serious stage in terms of its impact on the physical environment, the impoverishment of the social environment of many and our prospects for survival. Can wilderness now play a wider role in preserving humanity by helping to fundamentally change its values and goals?

The matter is urgent because our dominant policies and institutions are based on endless consumption and population growth that drive rapid deterioration of the environment. Growth has been viewed as a means to improve living standards but it has become an end in itself, with little

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PARKWATCH (continued)

consideration of the need for the sustainable outcomes we need to survive. We now have little time in which to make an orderly transition to a society in which the aim of growth is replaced by the aim of achieving harmony with the Earth and with each other. Wilderness, a temporary antidote to the ills of our 'civilisation' since the time of Thoreau, now has the potential to be part of its cure!

Colong Bulletin,
No. 272 (October 2018)

The National Parks and Wildlife Service we want to have

Whether we are cross-country skiing through snow gums not far from the source of the Snowy and Murray rivers, sitting among the giant blue gums in the Grose Valley, or looking across the rainforest listening to the birds at Dorriggo, there is a group of people we should thank for managing and protecting these areas – the people who work for the National Parks and Wildlife Service (NPWS).

After 10 years of lobbying by NPA (NSW), the National Parks and Wildlife Service was established by the Liberal Askin government in 1967, with responsibility for the care, control and management of national parks. At that time about 1 per cent of NSW was protected within parks such as The Royal, Ku-ring-gai Chase, Bouddi, New England, Morton, Kosciuszko, Dorriggo, and Brisbane Waters. Since this start, NPWS, with support from both Labor and Coalition governments, has grown the national parks estate to 9 per cent of NSW, established ecological research capabilities, developed innovative fire-fighting and pest management strategies, and managed access to these precious areas by millions of people.

NPWS has also developed partnerships with Aboriginal people to protect cultural heritage and jointly manage significant parks. This joint management has helped bring deeper insight and feel for country. *'We don't own the land ... the land owns us'*. These arrangements mean Aboriginal experience, insight and knowledge become part of park management.

We are fortunate in NSW to have had capable people with passion and dedication for their job managing our national parks. Yet support for the NPWS is ebbing, making it increasingly difficult for the service to fulfil its purpose. Restructures, staff losses and budget cuts have left our parks vulnerable. Commercial and development interests are threatening

biodiversity and landscapes. It is incomprehensible that we now have legislation that prioritises an introduced species over our native plants and animals. This is highlighted by, not only the damage being done to Kosciuszko NP by feral horses, but also the undermining of the NPWS by new wild horse heritage legislation. We are also seeing the stalling of the establishment plan for national parks and the additions to the protected land areas we need for the future viability of our wildlife are just not happening.

Are all our conservation efforts getting us nowhere? Sixty years after NPA started advocating for well-managed protected areas we need to redouble our efforts and perhaps find new ways to advocate for government support and respect for a professionally run national park system. It's time to turn back the tide of indifference and disrespect for country. It's time to take pride in the plants, animals and landscapes that exist alongside us. It's time for effective protection of nature. And as a first step, it's time to restore the National Parks and Wildlife Service to being one of the world's leaders in protected area management. The people and wildlife of NSW deserve nothing less.

Nature NSW,
Vol. 62, No. 3 (Spring 2018)

What's the buzz this Spring?

With the assistance of citizen scientists, we have been surveying pollinators and butterflies in South Western Sydney to monitor the effect of bushcare and restoration. Bringing Back the Buzz has now been running for 2 years in Spring and Autumn, across 6 sites. What follows is an overview of our findings so far.

- By an order of magnitude, the most commonly found pollinator species were Hoverflies (Syrphidae family) and European Honey Bee (*Apis mellifera*).
- We observed 19 butterfly species throughout the first 2 years of the project.
- In general we tended to find more butterflies than pollinators at each monitoring plot.

Nature NSW,
Vol. 62, No. 3 (Spring 2018)

Walking the Beeripmo clearfell trail?

Mount Cole State Forest was identified as having high conservation values under VNPA's Small Parks Project in 2010. There are 130 species of birds, 9 threatened fauna species and 13 threatened flora species occurring in

the forest. Eighty-seven per cent of Ecological Vegetation Classes (EVCs) in the forest are under-represented in the Central Victorian Upland Bioregion.

In 2014, the former Napthine government controversially gave the government logging agency VicForests control of logging operations. VicForests licensees are currently harvesting around 1,000 cubic metres in Mount Cole as part of its 'community forestry' program.

A team of VNPA staff recently travelled to the site and found at least five of the 17 clearfell coupes have been logged in the past few years, two have been logged in the past 6 months with at least one just finished. Some of the future areas flagged for clearfell logging have significant conservation values. The VEAC recommendations for Mount Cole fall short, with much of the area left open to intensive logging, and the Wimmera River headwaters lacking any protection.

Park Watch (VNPA),
No. 274 (September 2018)

Plucking the goose that lays the golden egg?

In early August, the Coalition announced that it would create a new Great Ocean Road Authority 'to manage designated Crown Land along the Great Ocean Road. This new authority will replace existing organisations including local governments, Parks Victoria, Dept. of Land, Water and Planning and the Great Ocean Road Coast Committee that currently manage Crown land along the coast.'

There are around 110,000 ha of public land within 5 km of the coast (both land and sea) between Geelong and Warrnambool. The bulk of this is managed by Parks Victoria, of which 80 per cent is protected under the National Parks Act. The rest is a range of smaller coastal bushland and nature conservation reserves protected under the Crown Land (Reserves) Act.

VNPA would be deeply concerned and opposed to any change of tenure or management responsibility for 'designated crown land' in high conservation areas. This would include reserves under the National Parks Act, Crown Land (Reserves) Act, and other coastal reserves.

Of the almost \$1 billion in economic benefit generated in the region, much can be attributed to its natural values – the vast majority managed by Parks Victoria. Surely some of the revenue generated from these natural drawcards

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PARKWATCH (continued)

should be invested back into park management. Instead of duplicating Parks Victoria, it would be better to fund the existing park management body properly. A healthy, well looked-after goose will continue to lay golden eggs for many decades to come, as well as ensuring our great natural heritage is protected.

Park Watch (VNPA),
No. 274 (September 2018)

We can deal with deer

It seems an insurmountable problem: up to a million deer in Victoria, the population growing by 200,000–300,000 a year, and an apparently powerful lobby group demanding protection for a ‘quality hunting experience’. But two things are emerging to change this situation.

First, widespread dismay over the many impacts of deer is growing. Secondly, effective control methods either exist or are well into development. Farmers across Victoria, from far East Gippsland to the Mallee, are dealing with large numbers of deer invading their land. That invasion is attracting a plethora of rogue hunters after an easy ‘drive by’ hunt. And they, in turn are placing a burden on country police who are now being called out at night to deal with them.

Landcare groups, working for many years replanting creek-sides and natural corridors with native species have seen their hard-won gains trashed by feral deer, and peri-urban councils are uniting against the growing menace on Melbourne’s fringe. Deer are causing road accidents, and due to their size, the accidents are serious.

In the Alpine National Park, aerial shooting (already employed for deer in South Australia, Canada and New Zealand) should be used to keep deer from Victoria’s High Plains. But the ultimate control tool is a targeted and humane bait. It will enable strategic action across the landscape, potentially removing deer from many areas, decreasing impacts on others, while still allowing recreational hunting. A number of researchers are already working on this, supported by some federal funding. What is needed now is a funding boost, maybe \$1 million a year for the next 3 years, to enable the control we need.

Park Watch (VNPA)
No. 274 (September 2018)

‘Parallel Parks’

A founding purpose for NPAQ (National Parks Association, Queensland) was to grow and protect national parks and appreciation for nature. Where once this

was reflected in photography and sketches, new technology is opening different frontiers for the sharing of our precious natural places. ‘Parallel Parks’ is one example of this.

Technology, Virtual Reality, is being used in a new way, to allow more people to access nature, and increase their wellbeing.

More than a billion people have some form of disability. New Horizons have a bold mission; to harness the power of VR to remove barriers and create opportunities to explore the world that millions could once have only dreamt of. And they’re helping to do just that through their Parallel Parks initiative.

Parallel Parks is using VR to transport people to places they may not otherwise be able to visit, from Uluru-Kata Tjuta to Murray River. Gathering HD 3D footage is challenging. Filming in remote and sometimes inhospitable areas isn’t easy, nor is it cheap.

The second challenge is building the virtual reality apps. This requires specific skills and unique technology. There are no off-the-shelf solutions, which means custom-making to requirements. The final challenge is ensuring people have access to the necessary equipment. People with disability are among the most disadvantaged of all Australia. Smartphones, and VR headsets are still out of reach for many. New Horizons hopes to raise awareness of the issues people with disability face and address the challenges through fundraising for Parallel Parks and through engaging new partners for the project across Australia.

Protected (QNPA)
Issue 22 (Spring 2018)

Is Tasmania’s iconic park being loved to death?

Visitor numbers at Cradle Mountain are surging, with 1.26 million people coming from far and wide to visit the island state last year.

Rapidly growing visitor number – from 200,000 in 2014 to 250,000 in 2017 – has prompted Parks and Wildlife Service to ban private vehicle access to Dove Lake during peak periods, to ease congestion and improve road safety.

At peak times, like the Easter long weekend, there is a steady stream of people heading in both directions around Dove Lake. Tourists are able to stand on Glacier Rock and take in the view, but it can become overcrowded and precarious to visit. The state and federal governments have committed about \$86 million to a total overhaul of facilities at Cradle Mountain. Part of the redevelopment includes a new viewing shelter at Dove Lake, an amenities

building, bus shelter, parking and a viewing platform near Glacier Rock.

Premier Will Hodgman said restrictions on the number of tourists entering Tasmania would ‘hurt’ the state. ‘If we send a message to the rest of the world that we no longer want tourists here they’ll get it, and that will damage and hurt Tasmanian businesses right across the state. It will cost jobs and we want to see growth in our tourism industry continue.

www.abc.net.au/news 2018-10-09

Iconic species – brush-tailed rock-wallaby conservation program

Numbers of brush-tailed rock-wallabies have dramatically declined after habitat loss. It once lived between Queensland, Grampians in Victoria and west as far as the Warrumbungle Ranges. A NSW recovery plan for the brush-tailed rock-wallaby was created in 2008. Following on from this, Saving our Species is a conservation program designed to ensure the rock-wallaby remains healthy and wild. Captive breeding is already underway in partner zoos and sanctuaries. The program aims to supplement this effort by reducing pest animals (foxes, cats, and goats) and monitoring wallaby populations to further our understanding of the threats it continues to face.

www.nationalparks.nws.gov.au/conservation-programs
accessed 27/10/2018

World record feral cat eradication for Dirk Hartog Island

Dirk Hartog Island National Park, off Western Australia’s Mid-west coast, has become the world’s largest island to have cats, sheep and goats eradicated, paving the way for extensive threatened animal reintroductions over the next 12 years. Announcing the second stage of the ground-breaking ‘Return to 1616’ ecological restoration program, Environment Minister Stephen Dawson today declared the 63,000 hectare island cat, goat and sheep free.

Dirk Hartog Island is the State’s largest island and is home to the first known European landing on WA soil by Dutch explorer Dirk Hartog and his crew in 1616. Since the introduction of grazing animals, cats and weeds, 10 native mammal species have been lost from the island. More than 5,000 sheep and 11,000 goats have now been removed, resulting in improved vegetation and habitat for native species. Following extensive baiting, trapping and monitoring, no feral cats have been detected on the island since October

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PARKWATCH (continued)

2016, making it the world's largest island-based feral cat eradication project.

Stage 2 will see the reintroduction of 10 native mammal species and of bird species that were known to exist on the island. In addition, two native mammal species that were not known to exist there, Rufous hare-wallabies and Banded hare-wallabies, are being introduced. To start stage 2 of the project, a team of Dept. of Biodiversity, Conservation and Attractions scientists have released more than 140 Banded and Rufous hare-wallabies onto the island over the past 2 weeks. The \$44.4 million project is funded by the Gorgon Barrow Island Net Conservation Benefits Fund and the Dept. of Biodiversity, Conservation and Attractions.

www.dpaw.wa.au/news/media-statements/minister-for-the-environment
published 15 October 2018

Compiled by Hazel Rath

Winter colours of a Snow Gum,
Kosciuszko National Park.
Photo by Mike Bremers.



Snowy 2.0 will prop up the coal industry[!]

Snowy 2.0 is a pumped hydro storage scheme proposed to be located in Kosciuszko National Park. It is planned to have 2,000 MW of capacity and enough stored water to operate continuously for 7 days when the Tantangara dam storage is full. Snowy Hydro's website features a report by consultants Marsden Jacob stating that Snowy 2.0 'would improve the economics of coal generation' by 'increasing the use of low-cost fuels' [i.e. coal].

Furthermore, 'The power losses during each pumping cycle would increase electricity demand, requiring additional generation and consequently CO2 emissions' and by '... increasing lower cost coal-fired generation'. Snowy 2.0 is a bad development in a national park propping up the coal industry. Side-deals (i.e. so-called environmental offsets), such as seeking catchment restoration, feral horse removal, environmental flows and rehabilitation of upland swamps to assist the recovery of endangered alpine species are in tricky political territory.

To transmit the power generated by Snowy 2.0, swathes of eucalypt forest must be cleared for new power transmission lines that will double the capital cost of the operating project to \$8 billion. This clearing will have serious impacts on Kosciuszko National Park. National parks should be sacrosanct and major infrastructure should be prohibited. Snowy 2.0 is emphatically not a modern engineering vision to reduce infrastructure impacts on, or improve the health of, Kosciuszko National Park while enabling a new green energy economy.

Colong Bulletin, No. 270 (March 2018)

Deer culled in alpine aerial shooting trial

One deer was shot every 10 minutes, and 119 were killed over four days, during Victoria's first aerial deer cull last month. Professional shooters spent 20 hours in helicopters between October 16 and 19, as part of the Parks Victoria aerial shooting trial of deer in the Alpine National Park. The deer culled were almost all Sambar deer, with the exception of one Fallow deer.

Parks Victoria chief conservation scientist Mark Norman said the aerial cull trial was part of a three-year program to find the most efficient, cost effective and humane methods of managing deer in the Alpine National Park. The Victorian National Parks Association estimates the Victorian deer

population is growing at a rate of about 300,000 a year.

As part of its wider Alpine conservation strategy, in line with the Commonwealth *Environmental Protection and Biodiversity Conservation Act (1999)* and the Victorian *Flora and Fauna Guarantee Act (1988)*, Parks Victoria began the deer aerial shooting trial in the Mt Buffalo and Alpine National Parks. A Parks Victoria spokeswoman said the aim of the operation was to trial aerial shooting in spring at a range of elevations and in a variety of terrain and vegetation types.

Data collected from the trial will be reviewed to improve Parks Victoria's understanding of the technique and how it might be used as part of an integrated mix of strategies for managing deer to protect environmentally sensitive areas. A helicopter was used to target deer in areas around Mt Buffalo, Mt Feathertop and Mt Pinnibar, which included inaccessible and rugged terrain.

The spokeswoman said during the operation, air observers could identify significant track networks and large wallows that had been formed by deer across the park. To ensure the animals were killed humanely, an independent vet was employed to monitor the animal welfare outcomes. 'All carcass locations were recorded and 10 per cent were examined by the vet to ensure shooting was carried out humanely', she said. 'Those near waterways were visited and moved where required to prevent contamination of water catchments.'

Representatives from key stakeholder groups, including the Australian Deer Association, the Sporting Shooters Association of Australia, the Game Management Authority, the Harrietville Community Forum and the Department of Environment, Land Water and Planning, were briefed on the operation on Wednesday, October 17.

All data collected are now being reviewed, with the results combined with any from the ongoing ground shooting trial to find the best mix of methods to control the deer population. Parks Victoria has confirmed it will then determine the level of deer control needed to protect the environmentally sensitive areas, and the best combination of techniques to use.

'An ongoing, sustainable, landscape scale deer control action plan will be prepared in line with the recently released Draft Victorian Deer Management Strategy', the Parks Victoria spokeswoman said.

Gippsland Times, 5 Nov 2018

NPA notices



National Parks Association Calendar				
	December	January	February	March
Public holidays	Tues 25 Wed 26	Tues 1 Mon 28	—	Mon 11
General meetings	—	—	Thurs 21	Thurs 21
Committee meetings	Tues 4	—	Tues 5	Tues 5
Gudgeny Bush Regeneration ¹	Sat 8 ²	—	—	Sat 9
NPA Christmas Party	Sun 2 ³			

Further details: **1** GBRG. Meet at Namadgi Visitor Centre 9:15 am.
2 GBRG Christmas Party.
3 NPA Christmas Party.

The NPA welcomes the following new members
 Jan Morgan,
 James and Christine Volk.
 We look forward to seeing you at NPA activities.

This *Bulletin* was prepared by:
 Editors, Kevin McCue and Sonja Lenz
 Copyeditor, Ed Highley
 Presentation, Adrienne Nicholson.

Christmas party season

NPA, Namadgi Visitor Centre Sunday 2 December See Outings Program, page 16	GBRG Saturday 8 December See Outings Program, page 16
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NPA books available from some bookshops (e.g. ANBG), or contact the association office.

Call for volunteers

At NPA general meetings volunteer members set up the hall and the supper. We need more volunteers for 2019 as the roster is by no means full. Please contact Quentin Moran if you can help.
qmoran@webone.com.au Thank you.

Contributions for the NPA Bulletin

Contributions of articles, letters, poems, drawings and photographs are always welcome. If possible keep contributions to no more than 1,000 words. Items accepted for publication will be subject to editing and may also be published on the NPA website. Send all items to the *Bulletin* Team, email admin@npaact.org.au, or to the NPA ACT postal address (see page 27).

**Deadline for the March 2019 issue:
 31 January 2019.**

Cover photographs

Front cover

Main photo. Guthega Valley, Kosciuszko National Park. Photo by Mike Bremers. (bushwalk page 20).

Insets. Top. Art Week at Gudgenby Cottage (see page 8). Photo by Adrienne Nicholson.

Centre. Chris Emery receiving his Life Membership certificate (see page 11). Photo by Sabine Friedrich.

Bottom. Kosciuszko National Park, Main Range track. Photo by Kevin McCue.

Back cover

Kosciuszko National Park

Top left. Paddling the Snowy River, Byadbo Wilderness. Photo by Mike Bremers.

Top right. Main Range Track. Photo by Adrienne Nicholson.

Centre (left to right). Chequered Swallowtail (Adrienne Nicholson);
 A bird orchid (Adrienne Nicholson);
 A mountain skink (Kevin McCue);
 Mountain katydid (Adrienne Nicholson)

Bottom left. Summer daisies. Photo by Kevin McCue.

Bottom right. Thredbo River valley in winter. Photo by Brian Slee.

General Meetings

Third Thursday of the month, (not December or January)
8.00 pm, Uniting Church hall, 56 Scrivener Street, O'Connor



Thursday 21 February 2019

The wild things of Mulligans Flat Woodlands Sanctuary

Sam Nerrie

NPA member and accomplished photographer

Since moving to Canberra a few years ago, Sam has developed a passion for Mulligans Flat, regularly wandering the forests and grasslands. She has encountered many animals, insects, birds and plants there, each with a story to tell.

Mulligans Flat is a fascinating place and Sam, an experienced presenter, will share some of the delightful photographic moments she has experienced in the sanctuary. One of her photos gained an honourable mention in an international photography competition.

The management committee of the NPA ACT wishes all members and their families a happy Christmas/New Year break and all the best for 2019.

National Parks Association of the ACT Incorporated

Inaugurated 1960

Aims and objectives of the Association

- Promotion of national parks and of measures for the protection of fauna and flora, scenery, natural features and cultural heritage in the Australian Capital Territory and elsewhere, and the reservation of specific areas.
- Interest in the provision of appropriate outdoor recreation areas.
- Stimulation of interest in, and appreciation and enjoyment of, such natural phenomena and cultural heritage by organised field outings, meetings or any other means.
- Cooperation with organisations and persons having similar interests and objectives.
- Promotion of, and education for, conservation, and the planning of landuse to achieve conservation.

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The NPA ACT office is in Unit 14 / 26 Lena Karmel Lodge, Barry Drive, Acton, together with the Conservation Council. It is staffed by volunteers on an irregular basis. Callers may leave phone or email messages at any time.

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www.facebook.com/NationalParksAssociationOfTheAct

Membership subscription rates (1 July to 30 June)

The subscription rate is \$22, which includes a digital copy only of our *Bulletin*.

If you want to receive a printed copy of the *Bulletin*, the subscription rates are:

Household membership	\$44	Single members	\$38.50
Corporate membership	\$33	Full-time student/Pensioner	\$22

Note: All the above subscription categories reduce to \$11 if a donation of \$100 or more is made.

Advertising

The *NPA Bulletin* accepts advertisements and inserts. Contact the NPA office for information and rates.

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Kosciuszko. It's a park, not a paddock!



For information on NPA ACT activities, please visit our website <http://www.npaact.org.au>
and follow us at www.facebook.com/NationalParksAssociationOfTheAct