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- NPA ACT named environment group of the year
- Hut loss dilemma for parks authorities
- Escapee horses sighted in south-eastern Namadgi
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conservation education protection

December 2020 – Volume 57 – Number 4

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conservation education protection

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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 below).

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Back: Gold-tipped Leafcutter Bee. By Lora Starrs (2nd prizewinner of the NPA Environmental Photography Competition 2020 in the category Flora, fauna and landscapes, subcategory Flora and fauna)

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



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From the President

NPA ACT named environmental group of the year

Good news – NPA ACT has been selected as the ACT Conservation Council Environmental Group of the Year.

The award was based on our two-and-a-half year feral horse lobbying campaign which resulted in the completion and release of the updated ACT 2020 Namadgi National Park Feral Horse Plan of Management (2020 PoM) (see p. 9) by Minister Mick Gentleman in September.

The 2020 PoM clearly states that all Namadgi is covered and that all humane removal methods are allowed. This sets a high standard for our neighbours whose parks are currently overrun by thousands of feral horses while they are removing very few.

During the campaign we generated some very positive articles in the media. Many members donated time and money to make possible this campaign spearheaded by Di Thompson. Thank you all.

The 60th Anniversary Young Photographers Competition was a great success with many excellent entries and good media coverage (see p. 6). Many thanks to Ed Highley who suggested it and Allan Sharp who ably assisted him.

The awards ceremony luncheon at the Canberra Southern Cross Club, Woden, was attended by winners, MLAs, local press and members,



NPA president Esther Gallant (right) and Reclaim Kosci organiser Linda Groom present ACT Minister Mick Gentleman with a painting of a Black Cockatoo for his support of the Reclaim Kosci campaign. In return, Mr Gentleman surprised Esther and Linda by presenting them with the final version of the ACT 2020 Namadgi National Park Feral Horse Management Plan.

The painting, by Leonie G. Bell, was one of a number of new artworks created for and donated to the Reclaim Kosci Campaign. The various pieces of art were given to politicians in NSW and the ACT who supported the Reclaim Kosci cause.

happy to finally get together again. Photographs were displayed electronically in the foyer of the Canberra Museum and Gallery during October, and the winning prints will be on display at the Namadgi



Visitor Centre until the end of January.

The 60th anniversary nature walks and art events have proven to be popular and have attracted many non-members, some of whom subsequently have joined. Our membership is now over 300 and we have many followers on social media thanks to determined efforts by Cynthia Burton.

Art Week at Gudgenby Cottage was very wet but productive (see p. 26). Many thanks to Adrienne Nicholson and Hazel Rath for once again organising and hosting it. The results will be on display at the Namadgi Visitor Centre.

There was also an opportunity to explore nearby areas. The Rendezvous Creek walking track amply demonstrated the devastation by first fire and then flood. It is a very sobering sample of what must have happened throughout Namadgi.

The Committee has now welcomed a 12th member, Mike Bremers as Outings Convener. Thanks to Brian Slee who filled in until Mike could take on the role.

We were saddened by the death of Dr Graeme Worboys AO (see p. 14). He was one of our greatest supporters who always provided helpful advice and encouragement. He will be greatly missed in the environmental community.

Members are reminded of the annual Christmas party to be held at the Namadgi Visitor Centre picnic area on 13 December (see details on p. 30). It will be an opportunity to see the refurbished Visitor Centre and the Art Week and Photo Competition displays.

Happy Holidays to all from the Committee.

Esther Gallant

A quiet achiever Ian McLeod 1931 – 2020

NPA members were saddened to hear of Ian's death in September. He was one of our very early members and remained a supporter of the association until the very end.

He was a quiet achiever and not one to blow his own trumpet, so even though I had worked in the same division at the Bureau of Mineral Resources in the 80s it was only after reading his obituary in *The Canberra Times* that I realised what an interesting and full life he had led. He had always loved the outdoors and the Australian bush and was among other things a geologist, glaciologist, keen bushwalker and skier.

Just before he joined NPA in 1960 he had spent the summer in Antarctica (where he had already overwintered in 1958 and was to return to several more times) and had played a major part in the rescue of two injured colleagues who had survived a nasty helicopter crash.

Later he became one of Australia's leading experts in Antarctic geology. After retirement he was active as an explainer at Questacon and as a long-standing member of the Canberra Alpine Club.

We extend our condolences to his wife Beverley and the family, and especially to his daughter, NPA member Jenny McLeod.

Sonja Lenz for the NPA ACT Committee

Report from the Environment Subcommittee ACT election result boosts prospects for woodlands reserves

In the lead-up to the recent ACT election, NPA ACT strongly supported the Conservation Council's election ask for the creation of new reserves at Bluett's Block and Newline.

These areas are important woodland sites, with Bluett's being located on the western edge of Denman Prospect and Newline to the east of the airport. Both sites are hotspots for woodland bird species, and the protection of Bluett's would strengthen the connection of the Kama Woodland Reserve with the woodlands to the south of the Molonglo River.

The ACT election has seen a significant increase in the Greens representation in the Assembly and it is likely that this will assist in the conservation of these two important woodland areas. In addition, there is the potential to expand ACT grassland reserves as a result of the ACT Labor and Greens parliamentary agreement.

The election results should be good news for the ACT's urban forest, with all three major parties having strong policies in this area. Just before the election, NPA ACT made a submission on the ACT's draft Urban Forest Strategy 2020–2045 (see below). The submission recognised the importance of the urban forest in providing connectivity between the ACT's conservation reserves.

The ACT Government is examining the potential to expand mountain-bike access between Mount Stromlo and Blue Range, and specific funding for this was an election pledge by ACT Labor. Members of the environment subcommittee are included in the reference group looking at this proposal and continue to champion the conservation values of areas under consideration.

NPA ACT has also noted that the Murrumbidgee River Corridor Plan of Management was last updated in 1998 and has limited reference to cycling. We have started lobbying Parks and Conservation to revise the plan, given the potential impact of both cycling and the Ginninderry residential development on the river corridor. The effects of both developments should be considered in light of updated assessments of the environmental values in the river corridor.

Following a successful recent work party to assess the impact of horses in the Clear Range (see p. 9), NPA ACT has raised with Parks and Conservation the obvious environmental damage that was found and is lobbying for the removal of horses from this area.

Don't forget that the NPA is interested in your suggestions for updating our environment policies. Commentary on climate change is obviously missing, but what else is missing or controversial?

The golden mile on the Mount Ainslie trail, Canberra. Photo by Sam Payne



The policies can be

found at https:// www.npaact.or.au/index.php/ pages/our-policies or via links on our Facebook page. A formal process for member input is being devised but preliminary comments can come to me on 0410 875 731 or rod.blackdog@gmail.com.

> Rod Griffiths Convener, Environment Subcommittee



NPA ACT questions timing of tree canopy goal

NPA ACT has questioned the ACT Government's timeframe for achieving a goal of 30 per cent tree canopy cover over the next 25 years.

In a submission on the ACT Draft Urban Forest Strategy 2020–2045, NPA ACT said it strongly supported the government for setting the target and believed the strategy set a sound framework for this to be achieved.

However, given the ACT's recognition of a climate change emergency and the important role that an urban forest can play in mitigating climate change effects, NPA ACT would question whether the time frame for achieving this goal was too long.

'The NPA ACT would therefore recommend that the government prioritise achieving the goals and other climate change mitigation actions within a much shorter time frame,' the submission said.

Expressing the NPA ACT's particular interest in conservation reserves, the submission noted the importance of the connectivity between reserves in keeping them healthy.

The submission noted the strategy's recognition of the importance of understory plantings and no-mow areas to increase biodiversity.

'In particular, restoration of habitats and tree planting on leased and public land should be planned to take into account the need for connectivity through corridors and other linkages between reserves.' Given the potential impacts of climate change, the choice of trees to be planted and their ongoing care would be critical to the success of the strategy.

NPA ACT supported the use of offsets covering the removal of trees. It argued, however, that while the 30 per cent canopy target included the whole urban area, this should not be achieved by allowing some suburban areas to have a very small canopy cover while other areas had much greater cover.

Offsetting this was the need to recognise that some areas such as important grasslands should be relatively treeless.

In supporting the direction of the strategy, NPA ACT recommended that current and future governments adequately resource the strategy.

The submission was prepared by the Environment Subcommittee. The full submission can be found on https://bit.ly/36GHua2.

Rosenberg's goanna project – October 2020 update Patrols reveal new active goanna nests

The NPA-supported Rosenberg's goanna project team finds itself still on a steep learning curve, writes Don Fletcher

A project which has run for a few years is expected to have settled into a routine (a good thing in science terms) but this one has felt different every year. I greatly enjoyed helping with the hatchling patrols. Naas Valley is an interesting and lovely area when you get away from the fire trail. It is rich in bird life and other fauna and provides scenic views of the Booth and Clear ranges from most ridges. A bonus for patrollers on warm days are close observations of the delightful hatchlings when they are outside the mound.

The hatchling patrols attracted new people to NPA and enabled

That is only partly due to changing conditions, first drought, then park closure, then bush fire, then Covid, and now flooded river crossings. Also it is partly because new

activities are being attempted, such as the mapping of termite mounds this winter by groups of people on 'sweep counts' and the checking of mapped mounds for goanna nests this spring by individual walkers on 'hatchling patrols'.

But the main reason for the constant feeling of novelty has been our 'learning curve'. For example, finally this spring for the first time we have trapped multiple female Rosenberg's



New team members Paul Davies and Julie Crawford on hatchling patrol. Photo by Don Fletcher

Goannas and successfully attached GPS packs.

To add females to the project was just a simple matter of when we trapped, and in which part of the valley, but no-one knew that before. When finally we learnt to trap the females, they needed their own harness design for the GPS. Last year my small-size male harnesses were quickly shed, and by then it was the wrong time of year to trap females. So, yes, a steep learning curve.

Each time when the 3-day weekly trapping was cancelled due to cold weather or flooding,

'The ability to find so many nests of this species is an unprecedented research resource' occasional social interactions. But more importantly, the patrols also revealed 16 active goanna nests in the first 5 weeks (at the time of writing). The ability to find so many nests of this species is an unprecedented research resource.



Don Fletcher and Kevin McCue measuring a goanna while attaching a male-sized GPS pack. Photo by Lois Padgham

We will investigate the possibility of an Honours project to take advantage of it in a future year. This resource exists only because of the efforts of the people who volunteered for winter sweep counts, and those who are doing the hatchling patrols.

To gain immediate research benefits from the nests (not just waiting for an Honours project) two activities have commenced. Cameras were placed on most nests within a week of finding them. The best are two time-lapse cameras that take pictures every 5 seconds in daylight (over 10,000 photos per day). The other cameras are triggered by movement of medium-size animals and do not reliably record every tiny hatchling.

It will take time before all the images have been inspected, but already we know that around half the nests have been visited by an adult goanna. I speculate that this is mostly due to protective maternal

An adult goanna visiting a nest



behaviour, rather than cannibalism, but such maternal behaviour is previously unknown in this species. To prove it would require both more observations of visits without predation of hatchlings, and DNA from both the adult and hatchlings.

Hatchling DNA is already being collected by tricking the hatchlings into falling into pitfall buckets. But to catch a wary adult female will not be easy. Another result from the cameras is realisation that hatchlings can be active at night, also previously unknown behaviour.

Meanwhile cage trapping has been underway. By the end of the first week in November, 26 individual goannas had been trapped a total of 32 times. Four goannas were



Top: Afternoon tea after the third hatchling patrol. Photo by Don Fletcher Rosenberg's goanna hatchlings photographed during patrols by (left) Paul Davies and Julie Crawford

recaptures from previous years and 22 were new.

All six 'femalesize' GPS packs have been fitted and both GPS packs designated for 'lower valley males'. This performance can be compared to our first year, when we captured 13 goannas in the



entire season, and fitted two GPS packs, and also is comparable to our second year when we captured 32 in the entire season.

At the time of writing, we were about to move traps from the lower valley to seek certain known individuals in the upper and middle valley, as well as some new goannas. In studies of animal movements, sample size, i.e. the number of individual animals tracked, is almost always a challenge. So new animals to track are always desirable.

A competing demand for the tracking devices is to place them on the same animals in order to consider behavioural change between years. Hence our intention is to recapture some goannas from previous years while also adding new ones. The between-year data can be applied to questions like, do goannas



- just happen to remain in the same general area between years, gradually drifting away due to the statistical effects of chance; or do they
- (ii) consistently occupy the same home range, as if they are deliberately seeking out known resources which they have used in the past, such as burrows or rabbit colonies; or do they
- (iii) actively take up new home ranges each summer? How does this same question apply to the long movements made by some males at mating time and to their 'subsidiary' or 'breeding' range, which they occupy at mating time? Are they moving consistently to the same 'breeding range' each year (and the same females perhaps) or do they actively seek to spread their reproductive effort to new areas and new females?

I look forward to the return of students to the project in coming weeks after exams are over to balance the efforts of oldies like Kevin McCue, John Brickhill and me and not-so-old worker Enzo Guarino. My fingers are crossed for fine weather during the students' post-exams camp in the last week of November.

> After that we expect to return to the routine radio tracking of each goanna to check its harness, intervening whenever re-glueing is needed. I will report on the summer activities in a future update.

This October 2020 update is the eighth about the NPA project, 'Conservation Biology of Rosenberg's Goanna', with previous ones being in Mar 2018, Jun 2018, Mar 2019, Jun 2019, Sep 2019, Dec 2019, and June 2020.

Don Fletcher is the project manager for the Rosenberg's Goanna project, which aims to improve understanding of habitat use and movements of Rosenberg's Goanna in Namadgi

Goanna 'Three over Five' was trapped on the edge of cleared land where he is seen being released by Evelyn Wu, Don Fletcher and Victor Gao. Photo by Lois Padgham





Our 60th anniversary environmental photography competition has revealed impressive levels of talent, ingenuity and empathy for the natural world among younger people, writes Ed Highley

Back in 2019, when we were a mere 59, we were thinking about what we might do to celebrate turning 60. We wanted to promote our objectives and achievements, and to put out the message that there is always rewarding work to be done to protect the natural environment.

But who is going to do that work as time passes? It was clear that we needed new blood, and finding that was a primary aim of our 2020

From left to right – top row: Tim Burgess, Anna Sreatfeild, Richie Southerton, Tyrie Starrs, Lora Starrs, Lachlan Read, Sam Payne, Miah-Tya Nungheena-Gowland, Charlotte Stone Bottom row: Stefan De Montis, Timothy Richardson, Joel Davis, Leandro de Souza



First prize in category Flora, fauna and landscapes, subcategory Flora and fauna: Lachlan Read, Superb Fairywren

environmental photography competition for younger people aged between 15 and 35.

We found, through the competition, that many younger people do have strong empathy for the natural environment and that, with the right approach, we can enthuse them to sign up and participate in our activities.

ACT Natural Resource Management and Icon Water joined us as financial sponsors of the competition, enabling us to offer, in addition to kudos, significant cash prizes to the winners. We were fortunate too to engage PhotoAccess, the ACT and region's centre for photography, film and video, and media arts, as a sponsor. Its professional advice and access to facilities proved invaluable.

Following delays due to the bushfires and pandemic, we opened the competition on 31 July. Over the 6 weeks until the closing date of 11 September, we received almost 200 entries from some 80 entrants; a strong response, given the impediments of closed parks and restricted travel faced by our keen young photographers.

The judging panel – visual artist Sammy Hawker, landscape photographer Glenn Martin, PhotoAccess director Kirsten Wehner, and ecologist and photographer David Wong – described many of the images as inspiring and said they faced a complex task in choosing winners. '... many younger people do have strong empathy for the natural environment ...

> with the right approach, we can enthuse them to sign up and participate in our activities'

A major avenue for promoting the competition to younger people was the strong social media campaign driven by Cynthia Burton and supported by the Promotion and Outreach Subcommittee headed by Allan Sharp. That campaign attracted not only many of the entries to the competition, but also the greatest single influx of new members we have seen for many years.

The awards were presented to the winners at the Canberra Southern Cross Club, Woden, on 9 October (see photos pp. 7–10).

The winning entries were shown electronically on screens in the foyer of the Canberra Museum and Gallery during October and the prints are on display at the Namadgi Visitor Centre until 31 January 2021. They can also be viewed on our website.

The entries encourage confidence that there are enthusiastic supporters of the environment waiting in the wings and that we now have the tools to engage them.

> Ed Highley initiated the photography competition and headed the team that ran it



First prize in category Box-gum woodlands of the Australian Capital Territory, *subcategory* The big picture – perspectives of our woodlands: *Richie Southerton*, Lunar skeleton trees



First prize in category Flora, fauna and landscapes, subcategory Landscapes: Stefan De Montis, Snow Gum on the Scabby Range



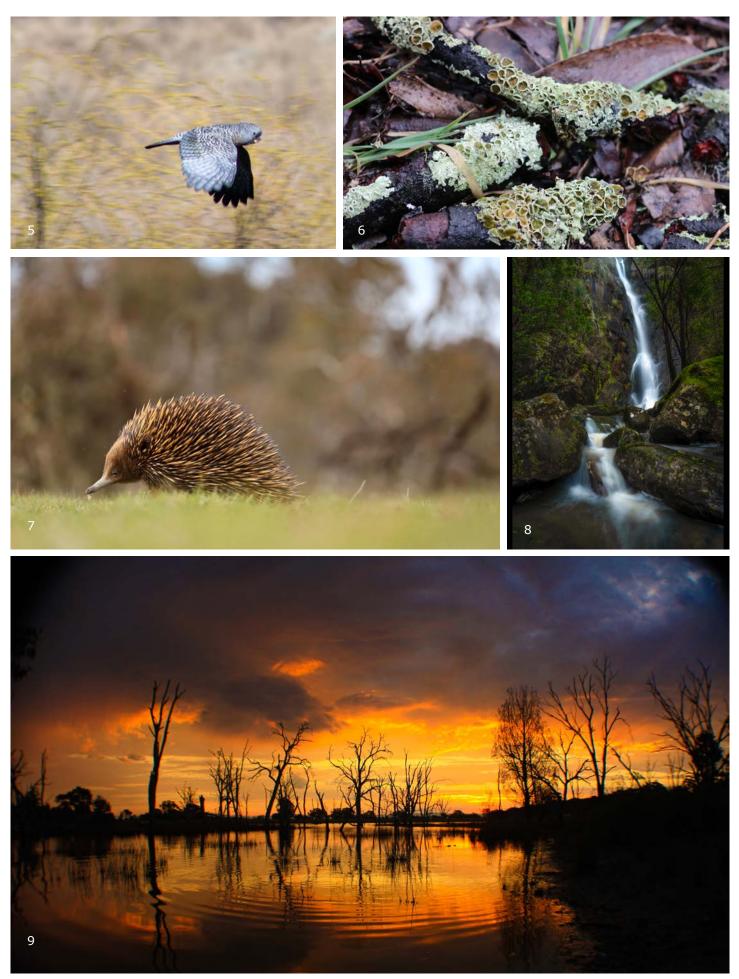
First prize in category Box-gum woodlands of the Australian Capital Territory, subcategory Fine detail – getting close-up and personal in the woodlands: Lora Starrs, Peron's Tree Frog



First prize in category Conserving our water supply: Joel Davis, A murder of crows







Further prizewinners: 1 - Cooma - cold and clear by Tim Richardson. 2 - Dusky Woodswallow by Tyrie Starrs.
3 - Spotted Pardalote by Lachlan Read. 4 - Winter daybreak by Sam Payne. 5 - Gang-gang Cockatoo by Anna Streatfeild. 6 - Lichen by Miah-Tya Nungheen Gowland. 7 - Woodland wandering by Charlotte Stone. 8 - Coree Falls by Andrew May.
9 - Mulligans Flat Woodland by Tom Corra.













Presentation of photo competition prizes

More than 60 people attended the presentation of prizes to the winners of NPA ACT's environment photography competition 2020 at the Canberra Southern Cross Club, Woden, on 9 July.

Guests included ACT government ministers Mick Gentleman and Shane Rattenbury, MLA and now leader of the ACT Liberal Party Elizabeth Lee, representatives from our sponsors, Icon Water, ACT NRM Management and PhotoAccess, and a good turnout of NPA members.













Escaped horses spotted in south-eastern Namadg But it was the smell of horses that assailed our senses, and we found out

A NPA ACT work party makes an unwelcome discovery - Kevin McCue reports

The work party, on Saturday 19 September, was organised between NPA ACT's work party coordinator Martin Chalk and ACT Parks ranger Nick Thorne to

extent of long-escaped stock and their offspring and

observations indicated that horses are established in

the area, but those observations had not extended to

the grassland. On a recent visit by Nick, the stallion

with GPS to download horse-dung markings directly

to the rangers' database. Unfortunately, the software

failed to work on most of the devices, so the rangers

had threatened him, so he backed off and left.

and work party participant Sonja Lenz, whose

smartphones did work, rushed around logging

The signs were ominous as we drove towards the

everyone's sightings of horse dung.

fire trail. Descending by foot into the

starting point for the walk, piles of horse

out forest, we found dung and horse pugs even though there was little grass.

At the on-site briefing by rangers Nick and Mark Elford, we were issued with a smartphone or tablet

their likely permanency on the site. Recent

map horse-dung sites on a small but significant grassland site on the Clear Range.

The aim was to establish the

'He started to head for us but must have been spooked by our numbers and veered off'

The horses have obviously been there a long time judging by the density of dung heaps, some almost disintegrated, some

quite fresh and stinking – almost unbelievable amounts.

We learned to quickly identify large dung piles by the light-coloured fungi growing from them. But even the bogs and creeks were suffused with dung, the stream banks trodden down, wallows in the pools. Sad really. I wondered how long the frogs, skinks and rarely seen ground bird like the Spotted Quail Thrush would survive this level of pollution and physical threat.

why when we arrived at the clearing: horse dung and pugs everywhere. We then spotted a herd of about eight horses with a dominant stallion.

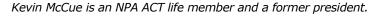
He started to head for us but must have been spooked by our numbers

and veered off, and all of them soon trotted away out of sight.

On our way out we saw another herd of five or six horses at the top of the range as the firetrail descended into Naas Valley.

I do wonder how many horses are living in Namadai National Park. They are a threat to the waterways as well as bushwalkers and researchers like us conducting a citizen-science project in the Naas Valley. The longer action to remove them is deferred the bigger the problem will become.

Best to act now as another generation will soon be joining the herds.





New plan retains zero tolerance of feral horses in Namadgi

The ACT Government has maintained its zerotolerance policy on the presence of feral horses in Namadgi National Park (NNP) in its latest plan for managing feral horses in the park.

The 2020 Namadgi National Park Feral Horse Management Plan warns that, without population control in the ACT and under current control regimes in Kosciuszko National Park (KNP) and Victoria, feral horses would likely move into substantial areas of Namadgi.

The plan's goal is to protect the natural and cultural values of NNP by preventing feral horses from entering and establishing there. This will be achieved through surveillance, rapid responses to sightings, working with NSW authorities and rural landholders, and fencing.

The plan calls for the rapid and humane eradication of all feral horses entering NNP. This would be by passive trapping and humane destruction on site, and by aerial and ground shooting by qualified and experienced shooters.

The plan says early eradication is critical to prevent populations from establishing, and would reduce the need to cull large numbers of animals. Initiating humane control techniques while horse numbers are low also increases the chance of keeping NNP permanently free of feral horses.

The plan also stresses the importance of maintaining community support for ensuring Namadgi remains free of feral horses.

It also warns of the potential for domestic horses to stray or be deliberately released from properties in the ACT and NSW bordering the park [see above]. Domestic horses have entered Namadgi in the past from freehold properties in the Clear Range area, and cooperating with NSW agencies and neighbouring landholders is critical to reducing the risk.

Hut losses pose dilemma for parks authorities

With the loss of many alpine huts to bushfires, parks authorities are facing some tough choices, says Rosemary Hollow

The 2020 bushfires across the NSW and ACT alpine regions severely damaged the natural and cultural heritage of the alps. The devastation felt after the fires continues, as walks through eucalyptus trees, alpine heaths and stunning vistas have been replaced by walks through blackened trees, burnt-out grasslands and vistas of never-ending burnt trees.

There was also the tragic loss of huts, 13 in Kosciuszko and 2 in Namadgi. The devastation felt is not just about loss of the buildings; it is about the loss of shelters, places of comfort and places of memory.

On the morning of 31 December 2019, after six mostly glorious days of trekking in the Jagungal Wilderness of Kosciuszko National Park (KNP), we walked from Derschkos Hut to our car at Round Mountain carpark through haze, the smell of smoke and falling burnt leaves. When we had mobile access our phone buzzed with messages from the family; till then we had no idea of how close the fires were. It was a sobering end to our walk, and we were relieved when we reached our car.

We could see the flames below as we drove down to Kiandra; at 1pm it was nearly dark. It was only days later that we learnt that NSW Parks had evacuated walkers on New Year's Eve from the area we walked through, and that many of our beloved huts had been lost: Happy's Hut, where in late 2017 we rested on the verandah in the shade reading the logbook in the afternoon when walking the Australian Alps Walking Track (AAWT); Four Mile Hut, visited on circuits out of Kiandra, and on the AAWT – we were awed by the history, the construction, and the links with Klaus Hueneke's writing; and Round Mountain Hut, which we first visited after the devastation of the 2003 fires, and on subsequent trips enjoyed camping nearby with views of Jagungal

The restoration of huts after bushfires became a major issue for the NSW National Parks and Wildlife Service (NPWS), Victorian Parks and ACT Parks after the loss of many huts in the bushfires in the alpine parks in 2003. The decisions across all the Park agencies on which huts were to be rebuilt were taken after consultation across stakeholder groups and the preparation of conservation studies on the huts.

Right: The loved and lost Four Mile Hut in January 2017

The Burra Charter

A key document used by all agencies in the preparation of the conservation studies on the huts is the Burra Charter.

This charter – originally developed by Australia ICOMOS (International Council on Monuments and Sites) in 1979 – provides guidance on the conservation and management of places of cultural significance. Since the 1980s the Burra Charter has been used by heritage practitioners, park management agencies, heritage site managers and private consulting firms as a guide to the management of Australia's significant cultural places.

The Burra Charter does not recommend places not be rebuilt; what it does is provide a process for considering whether they should be rebuilt, including consultation with affected communities. The NPWS Kosciuszko National Park Plan of Management refers to the Burra Charter as one of the important national overarching principles considered in its development.

Hut replacement in KNP

In the 2020 fires in KNP, 15 huts and buildings were lost, including all the buildings in the Kiandra precinct. This loss comes after the devastation of the 2003 fires, where 13 intact huts and a standing ruin were destroyed.

The Kosciuszko National Park Plan of Management (2006, amended in 2010 and 2014) states:

Decisions on the reconstruction, replacement or commemoration of huts destroyed in the future will be made on a case-by-case basis through the application of the Hut Rebuilding Guidelines and the provisions of the Kosciuszko National Park Huts Conservation Strategy.

Reconstruction of destroyed huts will usually only be considered if it is the best means of conserving the individual and collective significance of the building(s).





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The plan also took into account other considerations, such as the recreational use of the hut, its location, its interpretive or educational role, environmental issues associated with the structure and use, visitor safety and liability risks, and the financial costs of reconstruction and ongoing maintenance.

Huts reconstructed and repaired in KNP after the 2003 fires included those regularly used by walkers and ski tourers and recreation users, including Doctor Forbes, O'Keefe's and Pretty Plain. Huts not replaced included Burrungubugee.

NPWS is still considering and consulting on how to respond to the huts lost in 2020. Klaus Hueneke wrote a tribute to Four Mile Hut on the KHA website.

It was built by Bob Hughes in about 1937, in part from slabs at the Elaine Mine. Its unique, almost iconic feature was hundreds of rusty strips of iron fastened over many cracks with flat head nails and leather washers.

From a heritage perspective, it would be hard to reconstruct Four Mile Hut. The original materials from the mine are no longer available, and perhaps neither would be the

skills required? Using Burra Charter and KNP Management Plan guidelines, an option could be to construct a hut nearby that provides shelter for

bushwalkers and ski tourers, and tells the story in words and pictures of the original hut. The narrative would include the sad story of its sudden destruction in 2020 and how people responded, including the poem Klaus Hueneke wrote as a tribute.

Hut replacement in Victoria's Alpine National Park

In the 2003 bushfires fires 29 huts in the Alpine National Park in Victoria were destroyed. The guidelines and processes used by Parks Victoria in considering restoration of these huts were similar to those adopted by NPWS. It carried out extensive consultation with key interest groups including bushwalkers and ski tourers. Just six of these huts were replaced: two management huts, Mt Benambra Fire Tower and Bogong Aqueduct; two previous cattlemen's huts with social value, Roper and McNamara's; and two refuge huts, Mitchell and Federation.

Franklin Chalet

In the ACT the most significant hut lost in the 2003 bushfires was the Mt Franklin Chalet, built in 1937–38 and operated by the Canberra Alpine Club. The chalet was not rebuilt: instead ACT Parks constructed a large, corrugated-iron survival and interpretive shelter at the site. Some of the footings of the old chalet and remnants of the original ski tows are still visible. There are interpretive panels with information on the chalet's history and the local fauna and flora.

Options

'... only days later we learnt that NSW

Parks evacuated walkers on New Year's Eve

from the area we walked through, and that

many of our beloved huts had been lost'

ACT Parks is still considering options for the lost huts in Namadgi and has consulted with the Kosciuszko Huts Association and the families of the original hut owners. In a submission to ACT Parks, NPA ACT said:

Ideally, it would be good to replace these huts with bush huts of a more contemporary design and fabric, so it is clearly evident they were built in 2020, close as practical to the original location. Ensure design and fabric used is as fireproof as possible. Include interpretation on original huts, and information about 2020 fires.

However, we are well aware that based on the ACT Parks response to the loss of the Franklin Chalet in 2003, and the NPWS and VicParks response to huts lost in the alpine areas in the 2003 fires, where recreational use, visitor safety and cost were key criteria considered for replacing huts, it is unlikely that these two huts would be replaced.

The cultural values of these huts as identified in the ACT Heritage Register listings are significant. It is recommended that the stories behind these values, and how the huts came to be destroyed in the 2020 fires should be told on site. The installation of interpretive shelters with panels telling these stories of the huts, their original builders and uses, and their loss, is our next preference if the huts cannot be replaced.

To conclude, the words of Mathew Higgins in the Canberra Times in January 2020 are appropriate:

While a rebuilt hut cannot be the original building, its social values for the community can and do continue. After the ashes, the places of the high country can live on. Some will live only in memory and photographs, but some will live again as structures in the landscape.

Rosemary Hollow is convener of NPA ACT's Cultural Subcommittee and spent over 20 years working for the Tasmanian and Australian governments in environment and heritage departments.



The Namadgi huts

Two huts, Demandering and Max and Bert Oldfield's (also known as The Banks Hut), were lost in the fires in Namadgi National Park (NNP) in January 2020. Both are on the ACT Heritage Register.

Demandering Hut (also known as Curtis or Mt Clear Hut) is linked to the Cotter family, and Max and Bert Oldfield's Hut to the Oldfield family. This

hut was built by Max and Bert in 1967, using some stones from an earlier hut built before World War One. Only a few stones of the earlier hut remain. From about 1955 to 1991 the hut was not visited. It became known following an oral history project and interviews undertaken by Matthew Higgins 1990.

ACT environment head looks to young on climate action

The ACT's new Environment Commissioner is enthusiastic about the contribution young people can make to climate change and environmental strategies, reports Allan Sharp

Organisations such as NPA ACT that contribute to environmental wellbeing should be taking the opportunity to channel the passion of young people into local endeavours, says the ACT's new Commissioner for Sustainability and the Environment, Sophie Lewis.

Congratulating NPA ACT on 'reaching 60', Dr Lewis praised the contribution of volunteers, citizen scientists and natural resource managers and the 'richness of local knowledge' that they brought.

A climate change expert, Dr Lewis is a lead author with the International Climate Change Panel assessment reports that are used to develop policies around climate change. She was ACT Scientist of the Year in 2019 for her research in helping to better understand the impact of climate change on the ACT.

Since her appointment as commissioner in May, she has found herself managing an array of environmental issues of pressing concern to the region.

Dr Lewis said she stepped into her new job in a 'strange time', between the environmental catastrophe of the bushfires and the disruption of the COVID-19 pandemic.

Abiding interest

Since then she has been working on issues identified in the latest State of the Environment Report (https://apo.org.au/node/275401), including policies to adapt to and mitigate climate change, and to incorporate Indigenous knowledge and science into environmental management, assessments and reports.

But her abiding interest is in the contribution young people can make in generating ideas and solutions to environmental problems.

In her acceptance speech after being named ACT Scientist of the Year, Dr Lewis spoke of her excitement at being more involved with school groups and

visiting a wider range of schools and age groups. She said she would use the prize money to develop programs for high school and college-age young people in

'Canberrans are very switched on to the challenges of climate change. We have ambitious emissions reduction targets and were at the forefront of declaring a climate emergency back in May 2019'

Canberra to develop their interests in climate change and empower them 'to help us make positive action on climate change'.

'This will invest in our young people and allow them to teach their peers elsewhere in Australia,' she said. 'Canberra's students are incredibly passionate and socially engaged on issues such as sustainability and climate change.'

Dr Lewis said children and young people are passionate about the environment. And while organisations like NPA ACT are highly relevant, a few factors are at play in getting younger people involved in them.

'Our kids are so busy these days and often volunteer in an ad hoc way,' she said. 'They also communicate with each other in different ways and on different platforms to adult,' she said.



'The main thing is that kids are very concerned about the environment and the big issues of their futures, so there is a great opportunity to channel that passion into local endeavours.'

Dr Lewis said her office was committed to working with children and young people and firmly believed that environmental data and information should be widely available, including to children.



Dr Sophie Lewis

Shared wisdom

The office is developing a children's state of the environment report and visiting schools and talking to educator and parent groups about the project. 'We're also very keen to hear directly from young people, in their words, about their environmental thoughts and concerns,' Dr Lewis said. 'Our children are so empowered and capable and have great wisdom to share with us.'

Dr Lewis said various environmental pressures were affecting Canberra.

'After last summer I think we're all aware of our vulnerabilities to extreme weather and climate events and the challenges of climate change. Many of the issues identified in the State of the Environment Report are linked to or affected by climate change.

'As a small jurisdiction leading the way in reducing greenhouse gas emissions but affected by national

and international policies, we're in a specific situation in the ACT. We must be thinking now about how we set the standard for low-emissions approaches and prepare for future change.' The Office for Sustainability and the

Environment has clear legislation to address these challenges. These include identifying issues and making

recommendations to the ACT Government through the State of the Environment Report and special and annual reports, as well as through investigations.

'A key part of our role is to enhance knowledge on the environment and sustainability and work with our wonderful Canberra community,' Dr Lewis said. 'There is immense value of talking to and working with community members and groups.'

'Canberrans are very switched on to the challenges of climate change. We have ambitious emissions reduction targets and were at the forefront of declaring a climate emergency back in May 2019.

'But there is always more to do. We have a long way to go to reduce our transport emissions and those associated with food and goods that are brought into Canberra. We can really be doing more to set ambitious targets for more sustainable lives.'

Allan Sharp is convener of the Promotion and Outreach Subcommittee

NPA members at the Climate change rally, Glebe Park, March 2019

NPA people

NPA has much to offer, says enviro student Lisa

Environmental science student Lisa Jokinen explains how she came to her calling in a roundabout way.

Since joining NPA ACT earlier this year, environmental science student Lisa Jokinen has thrown herself into the work of the association.

A member of the Promotion and Outreach Subcommittee, Lisa has been a keen participant in the Rosenberg's goanna project, and recently did a video editing course sponsored by NPA ACT to encourage the production of short promotional videos on our website, Facebook and Instagram pages.

Before beginning her studies, Lisa had a variety of jobs after completing her HSC in 2013.

After a stint as a personal assistant to a legal aid solicitor, she moved to Canberra from the South Coast in 2014, had a brief career in retail and as an ACT government admin assistant before deciding to study environmental science at the University of Canberra.

'I think environmental science picked me,' she said when asked why she had chosen this field. 'I had tried jobs in fields that I thought I wanted to work in, but I found law too scary and I didn't want to work in retail, and even less in the public service.'

'I had always found science interesting, so I applied for a bachelor of forensics, science, and environmental science, then also a diploma in science. I was accepted for bachelor of environmental science first, so I took it.

Lisa has her sights set on Honours when she finishes her bachelor's degree, which she is studying part-time and, ultimately perhaps, a PhD. She is majoring in Applied Ecology Environmental Genetics.

'Applied ecology is about understanding ecosystem services, processes, interactions, and conservation,' she said. 'Environmental genetics boils down to DNA being everywhere and in everything. It can be used to enhance an ecosystem, identify individuals and taxa in an environment, analyse taxa divergence or convergence, or save a species.'

'I would like a career in research, maybe starting as a field assistant and working up to lead my own research teams, preferably in herpetology or ornithology,' she said.

Lisa was attracted to NPA ACT through the Rosenberg's goanna project after seeing a notice on the university notice board. She inquired, was told she needed to join NPA ACT to participate, and did.

'I've had lots of fun learning about goannas – they're strong, mystical and elusive creatures. And I love being in the field and around the team and learning how to use different equipment' she said.

'There are so many interesting things to see and learn about, and lots of opportunities to learn about research projects and how they run. I've enjoyed learning about what goes on behind the scenes, like project planning and proposals, and applying for grants. I feel fortunate to be involved in the project.'

Lisa believes the NPA has a lot to offer everyone, including young people.

'It's companionship, education, outdoor activities, visiting places you haven't seen before, opportunities, a sense of belonging to



Lisa would like a career in research. Photo supplied by Lisa Jokinen

a community, and giving back to the environment. It's advocacy, it's a laugh, it's mixing with diverse yet likeminded people.'

She also reinforces the importance of social media in attracting more younger people to the organisation.

'It's critical' she said. 'It's an extremely efficient, effective and fast way to reach a very large and varied audience with a range of different types of media – audio, video, photo, text, etc. – especially now that we are in the social media age where fewer people read a newspaper or watch the news. It also gives the impression of being a more modern organisation.'

It's companionship, education, outdoor activities, visiting places you haven't seen before, opportunities, a sense of belonging to a community, and giving back to the environment'

As well as her involvement with NPA ACT, Lisa is active in several other conservation organisations, including Friends of Mount Majura and the Centre for Applied Water Science.

Allan Sharp

An inspirational leader Dr Graeme Worboys, (1950–2020)

Many NPA members made their first contact with Graeme Worboys around the mid 1980s when he was the Executive Director of the National Parks and Wildlife Service's South East Directorate based in Queanbeyan. This was a period when conservation management of parks and natural areas became more formal and professionalised. Non-government organisations such as NPA ACT started working more closely with governments and found both a mentor and tough taskmaster in Graeme in the decades that followed.

Graeme was always known as a tireless worker and became an internationally renowned specialist on protected areas through the International Union for Conservation of Nature (IUCN). Of particular note was his leadership in co-authoring the publication Protected Area Governance and Management. However, Graeme's true passion and commitment lay in the safeguarding of his beloved Kosciuszko National Park (KNP). Unfortunately, environmental protection, especially in KNP, has suffered significantly over the past 20 years. During Graeme's so-called retirement he first gained a PhD, maintained a prodigious output through the IUCN, partook of many major projects across Australia, and finally settled, despite ill-health, to commit to recording and co-authoring with Deirdre Slattery the history of KNP and the Snowy Mountains in the recently published Kosciuszko: A Great National Park.

Throughout these periods Graeme maintained contact with a swathe of both professional and amateur conservationists. Even from a distance, he mentored, guided and encouraged so many, and brought many of us into bodies that are today working collaboratively together. He was kind and inspirational.



Graeme Worboys and Di Thompson celebrate Graeme's Order of Australia, replete with 'fake' gong, awarded on Australia Day 2020.

However, he never lowered his standards and we were expected to rise to the occasion. How could we not? It was a privilege to have his wisdom, knowledge and experience to guide us through those times, and we have that legacy to guide us into the future.

His last message to NPA ACT on the successful passage of the Namadgi National Park Feral Horse Plan, which confirmed the ACT's zero tolerance of feral horses, was to Esther Gallant on 8 September 2020:

Esther, This is great feedback. Great work Thank you! I appreciated receiving this All the best Graeme

Di Thompson

Bushfire royal commission recommends national approach to disasters

The Royal Commission into National Natural Disaster Arrangements, set up following the calamitous bushfires early this year that burnt over 24 million hectares, including 80 percent of Namadgi National Park, has recommended a national approach to dealing with natural disasters.

The report, tabled in Parliament on 30 October, contains 80 recommendations to improve Australia's national natural disaster arrangements and make the nation safer.

It notes that although state and territory governments have primary responsibility – and accountability – for emergency management, Australia needs 'whole-of-nation', whole-of -government and whole-of -society cooperation and effort' to deal with emergencies.

This calls for greater cooperation and coordination across governments and agencies in sharing resources, responding to emergencies and recovery, and in the use of skills and technology to help manage and mitigate disaster risk efficiently and effectively.

The report said a national approach did not mean that the Australian Government should 'take over' from state and territory governments. However, it calls for the Australian Government to play a greater role than it currently does. Generally, the Australian Government should complement, enhance and support the role of the states and territories. It should continue to be focused primarily on areas requiring national consistency and coordination.

It noted that the Australian Government has at its disposal valuable capabilities and capacity, including those provided by the Australian Defence Force, to support the efforts of the states and territories in responding to, and recovering from, natural disasters.

Among the report's recommendations is a call for an Australianbased aerial firefighting capability in to be developed by Australian, state and territory governments and tasked according to greatest national need.

The Commission's broad terms of reference required examination of, among other things:

- the responsibilities of, and coordination between, Australian, state, territory and local governments relating to natural disasters
- Australia's arrangements for improving resilience and adapting to changing climate conditions
- what actions should be taken to mitigate the impacts of natural disasters, and
- whether changes are needed to Australia's legal framework for the involvement of the Commonwealth in responding to national emergencies.

The full report is available online at https://naturaldisaster.royalcommission.gov.au/

NPA outings program

		mbox 2020	
Bushwalk	grading guide Dece	mber 2020 – <i>N</i>	Iarch 2021
	Distance grading (per day)	Terrain grading	Sociatio
	1 up to 10 km	A Road, fire trail or track	E Rock scrambling
	2 10 km to 15 km	B Open forest	F Exploratory
	<i>3</i> 15 km to 20 km	C Light scrub	
	4 above 20 km	D Patches of thick scrub, regrou	wth
Day walks	Carry lunch and snacks, drinks, protecti	ive clothing, a first aid kit and any r	equired medication.
Pack walks	Two or more days. Carry all food and ca	amping requirements. CONTACT LE	ADER EARLY.
Car camps	Facilities often limited. Vehicles taken to	o site can be used for camping. CON	ITACT LEADER EARLY.
Work parties	Carry items as for day walks plus work	gloves and any tools required. Wor	k party details and location sometimes
	change, check NPA website, www.npaa	ct.org.au, for any last minute chang	jes.
Other activitie	es include ski trips, canoe trips, nature ra	ambles and environment or field gu	de studies.
Wednesday w	valks (WW) Medium or somewhat harde	er walks arranged on a joint NPA, E	BC (Brindabella Bushwalking Club) and CBC
		•	
	- ,		- · ·
_			
Transport		•	-
		- ·	•
Other activitie	change, check NPA website, www.npaar es include ski trips, canoe trips, nature ra valks (WW) Medium or somewhat harder (<i>Canberra Bushwalking Club</i>) basis for f members registered for WW. Only NPA- current Outings Convener at https://ww The NPA suggests a passenger contribu- by the number of occupants of the car	ict.org.au, for any last minute change ambles and environment or field gui er walks arranged on a joint NPA, E fit and experienced club walkers. No -hosted WW are shown in this prog ww.npaact.org.au/index.php/npa-co ution to transport costs of 40 cents including the driver, rounded to th	ges. Ide studies. BBC (<i>Brindabella Bushwalking Club</i>) and CBC otification and details are only emailed to ram. For WW email registration, contact the

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* 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 current Outings Convener at https://www.npaact.org.au/index.php/npa-contacts.

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 Brian Slee, contact 6281 0719 or brianslee@iprimus.com.au

COVID-19 arrangements

The following information sets out the current arrangements for outings in the NPA ACT walks program under restrictions on community activities introduced by the ACT Government aimed at reducing the risk of transmission of the COVID-19 virus. Walk descriptions will not always contain a meeting place or time, with this information being made available by contacting the leader. Walkers wishing to participate in a walk need to read these arrangements and the risk waiver on the Attendance and Risk Waiver form available at https://www.npaact.org.au//res/File/2017/Attendance%20Form(2017).pdf, then contact the leader to register, providing their name and a contact phone number.

Walkers are advised that they should not register with the leader (or attend the walk) if they have or have had flu-like symptoms such as a fever with a cough, sore throat or shortness of breath in the previous 2 weeks. For further information see the ACT Government COVID-19 website (https://www.covid19.act.gov.au/)

Walkers will need to arrange their own transport prior to the walk as the walk leader, because of social distancing and hygiene requirements, will not be facilitating ride sharing. Walkers are reminded that social distancing requirements will be in force on the walk and they are expected to practise good hygiene.

Participation in the walk will be considered acceptance of these arrangements and the risk waiver.

NPA outings program December 2020 – March 2021 (page 2 of 4)

5–8 December Pack walk	Snowy Mountains The High Country in early summer: clear streams, wildflowers, great views. The walk will go from Munyang to Schlink Hilton Hut (first night), Mawsons Hut (second night), Kerries Ridge, Gungartan back to Whites River Hut (third night) and Munyang. Dates may change by a day or two to accommodate bad weather. Limit of 8. Bookings closed 30 November.	Drive: 445 km, \$180 per car Maps: Geehi, Jagungal 1:25,000 Grading: 4/A/C/D/F Leader: Barrie R. Contact: brdr001@bigpond.net.au
12 December Saturday work party and Christmas Party	Gudgenby Bush Regeneration Group Assessment and control of re-sprouting woody weeds and other exotics along the mini-gorge near Gudgenby Homestead. Car-pooling available for the journey there and tools will be provided. Contact leader for registration arrangements and details of meeting place and time. Note: At time of publication this part of Namadgi is closed to the public and GBRG work parties are being held by permission of Park management. Work party will be followed by Christmas Party at Gudgenby Cottage. Please bring something to share for lunch.	Leader: Doug Brown Contact: 6247 0239 or kambalda@tpg.com.au
13 December Sunday	NPA Christmas Party Outdoors picnic at Namadgi Visitor Centre, Naas Rd, Tharwa, from 11:30 am. Bring picnic lunch and folding chair. Check website for more details and any changes closer to the date.	Contact a committee member (listed on inside of back page) if transport is required.
14-16 December Pack walk	Sassafras Trig This walk is from the Nerriga entrance to Morton NP, crossing Running and Sallee Creeks en route to a base camp near Quiltys Clearing. From here climb Sassafras Mountain and look for its elusive trig. On day 3 return to cars via Red Grounds Track. Rock scrambling, patches of regrowth and cliff-lines to negotiate. Limit of 8. Contact leader, preferably by email, by Friday 11 December.	Drive: 275 km, \$120 per car Map: Endrick 1:25,000 Grading: 2/A/D/E Leader: Philip Gatenby Contact: 0401 415 446 or philip.gatenby@gmail.com
28 December Monday holiday walk	Mullangarri Grasslands Meet 8:30 am at carpark (free) on corner of Northbourne Ave and London Circuit (western side). Catch tram to Gungahlin terminus and have coffee at adjacent café. Walk south into grasslands and complete circuit to Gubur Dhaura Hill. Catch tram at Mapleton Ave back to Dickson for sit down lunch. Return to city by tram. Less than 5 km, mostly flat route. Outing will not proceed if forecast max is above 28°. Check with leader beforehand.	Map: UBD street directory map 29 Grading: 1A Leader: Brian Slee Contact: 6281 0719 or brianslee@iprimus.com.au
3 January Sunday walk	Southern Ramsheads Depart 6:30 am and drive to Dead Horse Gap. Steep 600 m climb on footpad and off track to South Ramshead and then Ramshead before returning to cars. Afternoon tea in Jindabyne or Cooma. Book with leader by Saturday morning for weather check and departure point.	Drive: 420 km, \$168/car + Park entry fee. Maps: Chimneys Ridge, Tom Groggin 1:25,000 Grading 2B/C Leader: Mike Bremers Contact: 0428 923 408 or mcbremers@gmail.com
10 January Sunday walk	Bruce Ridge and O'Connor Ridge loop Meet 8 am at Park and Ride car park on the left just inside entrance to Canberra Uni on College Street (opposite Radford College). An easy- paced walk of about 14 km through Gossan Hill and Bruce Ridge Nature Reserves and O'Connor Ridge, returning via parklands and open grasslands in Kaleen and Lawson. Walk follows foot trails and bike ways through dry forest areas around and through the Uni of Canberra. See places you have often driven past but never visited. About 250 m climb.	Map: Canberra UBD Grading: 2A/B Leader: Steven Forst Contact: 0428 195 236 or steven.forst@iinet.net.au
13–16 January Pack walk	Boolijah and Bundundah From Sassafras descend east to the headwaters of Boolijah Creek and then to its junction with Danjera Creek. Pass through a saddle to Bundundah Creek and follow it upstream to its headwaters near Sassafras. This walk is partly exploratory in an area affected by recent fires. Patches of thick regrowth, rock scrambling and cliff-lines to negotiate. Almost all off-track. Only for fit and experienced walkers. Limit of 8. Contact leader, preferably by email, by Sunday 10 January.	Drive: 300 km, \$120 per car Maps: Sassafras (mostly), Nerriga 1:25,000 Grading: 2A/D/E/F Leader: Philip Gatenby Contact: 0401 415 446 philip.gatenby@gmail.com

NPA outings program December 2020 – March 2021 (page 3 of 4)

16 January Saturday Butterfly walk	Aranda Bushland NPA member and author of the <i>Field guide to the Butterflies of the ACT</i> will lead a morning nature walk to observe butterflies. Numbers limited.	More details on p. 35 Contact: 0457 380 860 or sonjalenz67@gmail.com
17 January Sunday walk	Watsons Crags Depart 6.30 am and drive to Charlotte Pass. Walk starts on the Main Range Track, across the Snowy River and up to Blue Lake Lookout. From there we proceed off-track, across open alpine slopes. After a break we continue off-track to a high ridge and then north-west to Watsons Crags. Some steep climbs. Possibly afternoon tea in Jindabyne. Book with leader by Saturday morning for weather check and departure point.	Drive: 420 km, \$168/car + Park entry fee. Map: Perisher Valley 1:25,000 Grading 3A/B Leader: Margaret Power Contact: 0448 924 357 or power000@tpg.com.au
24 January Sunday morning walk	Denman Prospect vistas Meet 8:30 am. Route will take in hills west of Denman, Butters Bridge across the Molonglo, and Ridgeline Park, with coffee at "Morning Dew" at the shops. Great views, interesting new suburb. 9 km, easy but with some steep grades and a fence to climb over. Brunch for stayers at "Sakeena's", Cooleman Court. Walk will not proceed if forecast max is above 28°. Contact leader by Saturday morning for meeting place.	Map: 2021 UBD street directory maps 56, 57 Grading: 1A/B Leader: Brian Slee Contact: 6281 0719 or brianslee@iprimus.com.au
27 January Wednesday walk	Joint NPA / BBC / CBC activity Details are emailed to those on the Wednesday Walks email list. Otherwise contact leader.	Leader: Philip Gatenby Contact: 0401 415 446 philip.gatenby@gmail.com
31 January Sunday walk	The Pyramid Meet 8:30 am at Tidbinbilla Visitor Centre carpark. Walk 2 km up Devils Gap fire trail and then steeply through bush for about 1 km to the top of The Pyramid on the southern boundary of Tidbinbilla Nature Reserve. 370 m total climb. Expect some thick regrowth if it was burnt last summer. Expect to be back in Canberra by early afternoon.	Map: Tidbinbilla 1:25,000 Grading: 1A/D Leader: Mike Bremers Contact: 0428 923 408 or mcbremers@gmail.com
31 January Sunday nature walk	Shepherds Lookout photography Meet 5 pm. One for photographers. Join a 1 st prize winner in NPA's Young Photographers Competition for a short walk in the Shepherds Lookout area, West Belconnen. Catch the late afternoon light and sunset in this idyllic spot, overlooking the Murrumbidgee. Share ideas and tips with other photographers. Limit of 10. Book for details at npa60thinfo@gmail.com	Leader: Stefan De Montis Contact: npa60thinfo@gmail.com
7 February Sunday walk	Callum Brae and West Jerrabomberra Nature Reserves A walk starting at 8:30 am from Callum Brae entry on Narrabundah Lane, Symonston. Walk past the old Mugga Explosives Stores, Icon's Pump Station with murals and down to near Callum Brae homestead. Continue to West Jerrabomberra Grasslands. Lunch on hilltop near boundaries of Mugga Tip and Boral Quarry. Return similar route but more direct nearing the cars. Walk is mostly on vehicle tracks, usually lots of birdlife and kangaroos as well as interesting trees and other flora.	Maps: Canberra, Tuggeranong 1:25,000 Grading: 2A/B Leader: Mike S. Contact: 0412 179 907
14 February Sunday walk	Square Rock and Smokers Trail loop Meet 8 am at Kambah Village shops carpark. A short walk with a few gradual and few testing climbs 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. Distance about 12 km, total climb 480 m.	Drive: 75 km, \$30 per car. Map: Corin Dam 1:25,000 Grading: 2A/B Leader: Steven Forst Contact: 0428 195 236 or steven.forst@iinet.net.au
21 February Sunday walk	North Canberra parks and ponds Meet 8:30 am. Route takes in Haig Park and a series of ponds and wetlands in Dickson, Lyneham and O'Connor. Ice blocks at Dickson pool, sit down lunch at Braddon, coffee at Ainslie. 9 km, mostly level, easy grade. Walk will not proceed if forecast max is above 28°. Contact leader by Saturday morning for meeting place.	Map: UBD street directory map 49 Grading: 1A Leader: Brian Slee Contact: 6281 0719 or brianslee@iprimus.com.au
24 February Wednesday walk	Joint NPA / BBC / CBC activity Details are emailed to those on the Wednesday Walks email list. Otherwise contact leader.	Leader: Mike S. Contact: 0412 179 907
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NPA outings program December 2020 – March 2021 (page 4 of 4)

27 February Saturday work party	Pine control near Snow Gum Arboretum Meet 8:15 am at Dillon Close, Weston (across Namatjira Drive from McDonald's). This is a new work site for NPA. The arboretum is located 100 m on the NSW side of the border but the wildings are blown into the ACT. This work party will locate and/or remove the wildings (depending on the size of individual trees). Hand saws and loppers will be provided, just bring gloves.	Drive: 100 km, \$40 per car Leader: Martin Chalk Contact: 6292 3502 (h)
28 February Sunday walk	Corang Peak, Budawangs Meet 7:30 am at Spotlight carpark, Bungendore Rd (at Ellerton Dr), Queanbeyan East. Long drive and longish walk, hence early start and probable late return. A walk from Wog Wog entrance of Morton NP to Corang Peak, with 360° views. Then on to Corang Arch for lunch. Same route return. Generally all on track with about 300 m climb. If weather hot, may go to Corang Lagoon instead. Register with leader prior to event.	Map: Corang 1:25,000 Grading: 3A/D Leader: Mike S. Contact: 0412 179 907
6–8 March Pack walk	Upper Naas Valley A 3-day easy pack walk up Naas Valley along the old Boboyan Rd and Sams Creek fire trail then crossing the ridge by the site of the Lone Pine homestead ruin before turning back down Grassy Creek. Campsites will depend on conditions, with the second night likely to be near Westermans Homestead. Contact leader before 3 March for transport arrangements.	Drive: 160 km, \$64 per car Maps: Yaouk, Shannons Flat 1:25,000 Grading: 2A/B Leader: Steven Forst Contact: 0428 195 236 or steven.forst@iinet.net.au
11–14 March Pack walk	Ettrema Gorge A relaxed and relatively easy introduction to the fabulous Ettrema Gorge and an excellent intro to pack walking. Day 1 walk in (about 4 km with full pack) and set up camp at Ettrema River, Days 2 and 3 exploratory walks (day packs) up and downstream, involving wading, swimming across pools and scrambling, Day 4 walk out. Contact leader for more details and book in no later than 1 March, providing full name and mobile number. Limit of 8.	Cost: about \$125 per car Map: Nerriga 1:25,000 Grade: 2/B/C/D/E/F Leader: Barrie R. Contact: brdr001@bigpond.net.au
13 March Saturday nature walk	Birdspotting at McQuoids Hill Meet 9 am. Join family-friendly excursion (1.5–2 hours of gentle walking) in Kambah to look for some of the ACT's wonderful birds. Walk leader is a highly knowledgeable 'birder'. Meet up location to be advised. Places limited, bookings required at npa60thinfo@gmail.com	Leader: Michael Robbins
13 March Saturday work party	Gudgenby Bush Regeneration Group Treatment of woody weeds in Gudgenby Valley at a site to be determined in light of level of fire recovery within the regeneration area. Car-pooling available for the journey there and tools will be provided. Contact leader for registration arrangements and details of meeting place and time.	Leader: Doug Brown Contact: 6247 0239 or kambalda@tpg.com.au
21 March Sunday morning walk	Australian National University sculptures Meet 9 am in carpark near Reserve Bank Building at the city end of University Avenue. An easy stroll through the ANU grounds to view some of the wonderful sculptures. A complement to the October 2020 walk led by Jan Morgan to view the ANU's trees.	Leader: Col McAlister Contact: 6288 4171 or cvmac@grapevine.com.au
24 March Wednesday walk	Joint NPA / BBC / CBC activity Details are emailed to those on the Wednesday Walks email list. Otherwise contact leader.	Leader: Barrie R. Contact: brdr001@bigpond.net.au
27 March Sunday work party	Pine control near Pryors Hut Meet 8:15 am at Dillon Close, Weston (across Namatjira Drive from McDonald's). NPA last visited this site in 2014. The old pine arboretum adjacent to Pryors Hut continues to be a source of wildings. This work party will locate and/or remove the wildings (depending on size of individual trees). Hand saws and loppers provided, just bring gloves.	Drive: 130 km, \$52 per car Leader: Brian Slee Contact: 6281 0719 or brianslee@iprimus.com.au
31 March Wednesday walk	Joint NPA / BBC / CBC activity Details are emailed to those on the Wednesday Walks email list. Otherwise contact leader.	Leader: Margaret Power Contact: 0448 924 357 or power000@tpg.com.au



Bushwalk report Spectacular views reward hard climb Mount Domain via Snowy Corner

Date: Wednesday, 29 July 2020

Participants: Philip Gatenby (leader), Greg Buckman, Mark Connolly, Paul Ellis, Jan Gatenby, Linda Groom, Leon Pietsch, Mark Rogers, Jacqui Rosier, Mike Smith

Weather: Sparkling, sunny, cool at first, windless.

The Tidbinbilla Range to the west of Canberra runs north to south from Pierces Creek to Fishing Gap. Mount Domain (1,506 m) is the range's third highest-peak and sits near its southern end.

We gathered early at the gate of Tidbinbilla Nature Reserve, but some not as early as others. The unforeseen closure of Point Hut Crossing with the Murrumbidgee in minor spate meant a few were a bit late. After being given the wrong directions for the shortest way to get to Tidbinbilla when the crossing closes, fewer were even later. Once together, 10 of us in 9 vehicles, COVID-19 compliant, convoyed to Mountain Creek to park at the base of the Tidbinbilla Range.

The walk starts on the new Lyrebird Trail, crossing creeks flowing well and beautified by recent rain, and leaves the track as it crosses the bottom of a spur off the main ridge of the range. There's a developing footpad on the spur to the ridge above, a 500-m climb in about 1.5 km. The pad starts in granite but soon hits shale with its accompanying scree. Halfway



up the spur is a seat with a spectacular view of the nature reserve, the Bullen Range and various points north-east. There was speculation as to how the seat got there – helicoptered in or carried up and assembled. Some years ago a bottle of furniture oil was secreted in the rocks in front of the seat for any walker who felt the urge to rejuvenate its timber.

An hour or so from Mountain Creek we enjoyed morning tea at Snowy Corner surrounded by acacia regrowth and an eclectic collection of rock cairns. The precise location of Snowy Corner is a bit vague. Where we were was neither snowy nor a corner, more of a T-junction, about 2 km

north of Mt Domain (our objective).

Many years ago I recall a footpad along the entire Tidbinbilla Range, from Camels Back Fire Trail in

'We turned left, southwards on the ridge in the Domain direction, hoping for the best ... but prepared for the worst'

the north to Fishing Gap in the south, which was obliterated in the 2003 bushfires. Efforts in recent years to restore a pad, particularly by members of Canberra Bushwalking Club (with Park Service approval), are showing progress.

At the junction we turned left, southwards on the ridge in the Domain direction, hoping for the best (a footpad to the summit) but prepared for the worst (thick scrub). As it turned out, part of the route had a developing footpad indicated in places by weathered pieces of tape draped in occasional trees. Care was needed not to lose the pad and its presence made reaching the summit of Domain possible in the time available. There were bits where the pad was less obvious or seemingly non-existent, but these often coincided with open grassy or rocky areas.

Cascade on Lyrebird Trail. Photo by Philip Gatenby

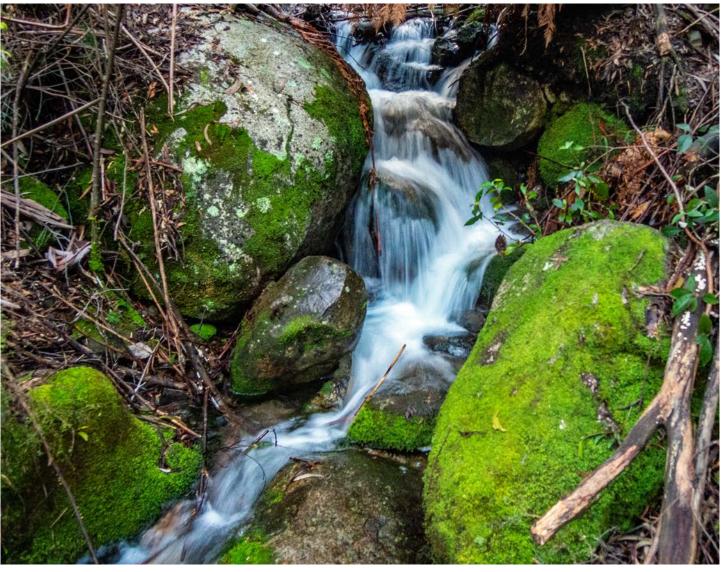
A couple of knolls along the way offered spectacular views of the Brindabellas to the west, south a multitude of Namadgi's many rocky outcrops and east, Canberra's urban sprawl in the distance and the Tidbinbilla Valley in the foreground. Tidbinbilla Mountain loomed large behind us. This must be one of the best views of the mountain. The ridge has a few ups and downs. The largest, when walking south, at about halfway along the ridge involves a descent of 100 m then a 200 m climb to Mt Domain.

A small rock cairn marks the summit in a copse of trees without a view, but 30 m to the north an area of exposed rock afforded lunch with a view.

The return journey involved retracing our prelunch steps, at least for most of us. Three of the party (one injured, one exhausted) returned via Fishing Gap. Just 8 hours after setting out in the morning we were back at the cars at the Mountain Creek car park. Our intention had been to then drive to the start of the Fishing Gap Fire Trail, about 4.5 km away, to pick up the three who'd taken the alternative (easier but longer) route but just as we were driving out of the car park our 3 companions strode in.

A pleasant ending to a day in which I think it's fair to say we all felt well exercised.

Philip Gatenby



Work party report

Bracing time for fence party Stony Creek Nature Reserve – fence removal

Date: 22 August 2020

NPA has held several work parties to remove pine wildings from the southern end of Stony Creek Nature Reserve but this was our first in the northern end.

The fence to be removed edged a track for part of the way down to an unnamed creek that runs into the Murrumbidgee. It consisted of star pickets to which barbed wire and netting were attached. Following a recce on 30 July, Martin Chalk and I thought the job could be completed in a day but adverse weather cut us short.

Eight members met at Dillon Close, Weston, at 8:30 am, and we were joined by a ninth and the ranger when we arrived via Brindabella Road at the gate to the 'Nerreman' property at 9 am. Snow had fallen overnight on local hills and a very cold wind was blowing. The work site was 1 km north of the locked gate and beyond a pine plantation.

With some enthusiastic newcomers we got stuck into the section lining the level part of the road and had it completely removed by morning tea. Having been wrongly advised by me beforehand that none was buried, a good job was done uprooting most of it. On advice from our new ranger Lizabeth Collier, we began rolling the netting in shorter lengths to facilitate later collection by solo rangers. It should become our practice in future work parties.

Next the group scattered out along the whole of the lower section of fence. Some of that on the gentler slope was removed but at noon it began to rain and sleet and it became too cold and wet to continue. A group had advanced down the steepest slope to the creek, removing everything except the netting. Well done. Wire and pickets were left in piles next to the track.

We cleared 350 metres and just a half-day of work remains to remove a dozen star pickets and 300 metres of netting. It is a scenic spot with much replanting, to which I am sure members would be happy to return. Early Nancys were flowering and a Wedge-tailed Eagle soared in the strong wind. Kevin McCue reported many fine grass trees near the creek.

Thanks to Russ Ayres, Mike Smith, Sonja Lenz, Kevin McCue, Ian Bell, Rupert Barnett, James Volk and Cynthia Burton for your determined efforts in bracing conditions. Also to Lizabeth Collier for working with us for most of the morning.

Brian Slee



Top: Ian Bell rolling wire. Photo by Cynthia Burton Bottom: Great balls of wire. Photo by Kevin McCue



NPA work party summary – Q4 2019 to Q3 2020

Month	Activity	Agency	Participants
November 2019 to May 2020	No work parties due to weather, fire and pandemic.		
June	Murrumbidgee River Corridor fence removal. Approximately 300 m of fence in the vicinity of western end of Tuggeranong dry stone wall removed – posts left in place. Also some briars close to tree plantings cut and dabbed.	PCS	10
July	Pierces Creek rehabilitation area – Lower Cotter Catchment. Removed redundant tree guards and stakes and replaced sprinkler risers and supports over 390 m of rehabilitated forestry road.	PCS	9
August	Stony Creek Nature Reserve fence removal. Approximately 350 m of stock fence removed with 300 m remaining.	PCS	9
September	Clear Range: stray stock survey. Multiple scat sites identified along the protected grassland located 4.1 km northeast of Horse Gully Hut.	PCS	8



Down the Darling with a paddle

With water flowing in the Darling River again, Mike Bremers takes the opportunity to fulfil a longtime ambition

Having paddled the Murray and Murrumbidgee Rivers over the past 25 years, I had a desire to add the Darling to the list.

According to *Murray-Darling Journeys*, of which I am co-author with my daughter, Angela, journeys down the Darling are few and far between. There are published reports of people travelling long distances in canoes or makeshift boats as far back 1864 but there is no doubt that the history extends back thousands of years.

In early 2020, torrential rain in Queensland sent floodwaters down the Culgoa River into New South Wales. The confluence of the Culgoa and Barwon rivers forms the start of the Darling River upstream of Bourke and then flows for about 1,570 km to meet the

Murray River at Wentworth. These waters provided a great flush to the dry Darling and resulted in enough water to be stored in the Menindee lakes system, about 1,100 km downstream, to ensure that the lower Darling would flow for at least the next 12 months with controlled releases from the lakes.

COVID-19 struck with lockdowns in early 2020 but NSW restrictions were eased so that regional travel was allowed from early June. By this time, the Bureau of Meteorology was forecasting a wet spring so the chances were that the Darling, which had almost ceased to flow again, would get fresh inflows, making a kayak trip possible.

I spent much of June getting my gear and food supplies sorted so that I was ready to go once good flows started coming down the river. Since towns are few and far between along the Darling, I decided to divide my food into parcels that could be posted ahead to localities or farm-stay stations along the river. Each parcel would be sufficient for 7-10 days to cover the 200-300 km between locations where I could resupply. I had decided that I would start my journey at Brewarrina on the Barwon River about 100 km upstream of the official start of the Darling River.

Derek Synnott paddling the Barwon River on a foggy morning. All photos by Mike Bremers

In mid to late July, a series of rain events in New South Wales resulted in a significant flow of water, mainly from the Castlereagh River, into the Barwon River upstream of Brewarrina. I could predict when the flow would arrive at my start point by careful analysis of the data from the river gauging stations and, as a result, the start date was set for 11 August 2020.

Derek Synnott was interested in paddling with me for the first week to Bourke and Kevin Frawley had volunteered to drive us to Brewarrina. In the weeks before the trip I had developed some soreness in my wrist, so

instead of my usual

fibreglass sea kayak I

opted to start with a

Hobie Revolution 16

pedal kayak. This

option of either

would give me the

'We covered the 205 km section from Brewarrina to Bourke in 7 days. While there are properties along the river, we did not see anyone else for 5 days'

> pedalling or paddling and an opportunity to build up strength in my wrist. I hoped that the water flow of 900 ML/day at the start would give me enough depth for the fins of the pedal drive mechanism to operate under the kayak hull without obstruction.

> A tour of the Brewarrina Fish Traps seemed an appropriate way to start the journey. These traps are believed to be many thousands of years old and they were the first of many reminders of Aboriginal habitation along the river that I would see over the following 2 months.

Brewarrina to Bourke

We covered the 205 km section from Brewarrina to Bourke in 7 days. While there are properties along the river, we did not see anyone else for 5 days. Apart from the trees lining the riverbank, much of the countryside goes unseen from river level due to the steep banks. It rained on the 4th day but cleared in the afternoon in time for setting up camp. The banks were sticky, resulting in thick clods of mud sticking to the bottom of our boots. At one point I lost my spectacles and after wandering around trying to find them I realised they were embedded in the mud stuck to the sole of my boot. Fortunately, no serious damage was done.

We passed the Bogan River confluence and the Culgoa River neither of which were contributing much flow. This was in contrast to earlier in the year when the Culgoa River was contributing 10,000 ML/day. One of the enduring memories of this section was the large number of Red-tailed Black Cockatoos seen and another was the number of shallow rocky bars across the river, especially just downstream of Brewarrina and on the approach to Bourke.

Bourke to Louth

My wrist had fared well in the first week and the water levels remained steady so, after a rest day in Bourke, I continued down the river alone. The 205 km section from Bourke to Louth took 6 days.

There were several cold days with strong headwinds but the Hobie pedal kayak performed well into the wind. I stayed a night at Rose Isle Station along the way. I particularly enjoyed spending the afternoon of the windiest day in the camp kitchen beside the open fire.

There also were three weirs to portage, each taking about an hour of hard work. Two of the weirs required unpacking all of the gear, carrying it up a steep bank then down another before repacking. Sandy beaches were becoming more common, which is great for camping. The ideal site was where I could pitch my tent within a few metres of my kayak. The water rose no more than a centimetre overnight and I knew from the river gauge data, via my mobile phone, that there was no significant increase further upstream.

I had planned to have a rest day at Shindys Inn in Louth but, unfortunately, it had not reopened after COVID-19 restrictions were lifted. Instead, I headed for Dunlop Station 40 km downstream. Dunlop Station was at one time a million acres and, in the 1880s, was the first to convert its shearing shed to mechanical shears. The shearing shed and shearers' quarters are in the process of being restored by Kim and a dedicated bunch of volunteers who were very welcoming.

The Murray Turtle likes to bask on logs in the sun



Louth and Tilpa

Typical red gum forests along the river flats

A few days later I had another rest day at Kallara Station (17 river km upstream of Tilpa) which was another friendly stopover with many relics of past farming days. I completed the 170 km Louth and Tilpa section in 7 days and it included another two weirs that required portaging.



Dunlop Station shearing shed was the first to convert to mechanical shears

When I arrived at Tilpa it just happened to be lunchtime, so I ordered lunch at the hotel. After 3 weeks of muesli bars and dehydrated food the burger did not last long on the plate!

The next section down to Wilcannia was the longest at 272 km. It was a bit daunting leaving Tilpa and heading alone downstream into such a remote area alone.

To be concluded in the next issue

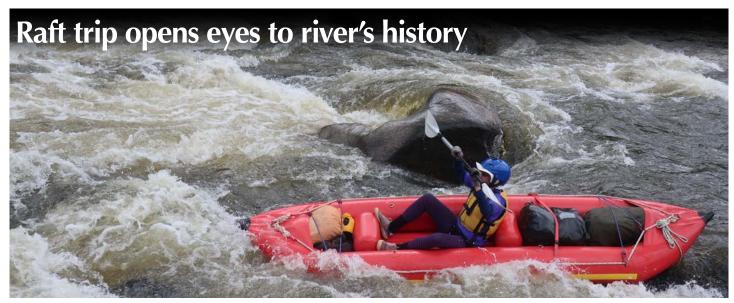
Mike Bremers has been an NPA ACT member for over 30 years.

Feral goats are a common sight along the Darling





NPA Bulletin - Vol. 57, No. 4 - December 2020



On a rafting trip down the Snowy River, Linda Groom finds beauty – and evidence of the damage being done by feral animals

In October, I rafted the Snowy River with a group of Canberra Bushwalking Club members – many of them also NPA members – and professional guides from Alpine River Adventures. We took 9 days, from Duncans Fire Trail near Delegate to Halfway Flat in the Barry Way, traversing the wonderful Byadbo Wilderness. This less-visited section of Kosciuszko National Park contains exciting rapids, Indigenous sites, and environmental wonders and warning signs.

The rapids dominated our consciousness for the first couple of days. Some of us had no prior paddling experience of any kind. It was one person per raft, so there was no-one else to blame. The instruction that we should lean heavily towards a looming rock took a little getting used to. Four of us (40 per cent) suffered the indignities of being hurled from our rafts mid rapid. But, as the trip progressed, we found ourselves capable of steering our rafts to that sweet spot where a glossy triangle of water indicates a good entry point for a rapid, and then enjoying the bounces as we hurtled through waves to the next pool.

Chief guide Richard Swain, an Indigenous man who grew up in the Snowy Mountains, opened our eyes to the history of the river. Thousands of generations had visited the Snowy Valley, with its plentiful food, including fish, water birds, yam lilies and yam daisies. I had expected the Indigenous history to be confined to one or two sites, but once Richard had shown us what to look for, we found artefacts such as grinding stones and hand-chipped blades at most of our camp sites, along with trees bearing the outlines of canoes and coolemans. Some older trees had possum-smoking holes. Richard explained how tools were made, and showed us string made from the bark of kurrajong trees.

While we traversed the pools or explored our camp sites, we had time to absorb the beauty of the place – red and grey cliffs curbed with synclines and anticlines, the graceful Snowy River wattles (*Acacia boormanii*), mature kurrajongs, and the wonderful *Callitris* that caused Banjo Paterson to write of 'pine-clad ridges' raising 'their torn and rugged battlements on high'. Much of the beauty was in the little things – lichen on granite, raindrops on the glossy leaves of yam lilies, and the sound of a Reed Warbler sheltering in a bed of reeds taller than any person.

Leaping the gap during the portage past Snowy Falls



But some of the beauty is, sadly, only remnant beauty, and carries warning signs of further environmental decline. The reed beds below Snowy Falls are now few and far between. Richard explained that feral animals, mainly horses, had killed them by eating their seed

Jan Gatenby negotiates a rapid above Snowy Falls. All photos by Linda Groom

heads. In the last 6 days of the trip, the only reeds we saw were in places where they were protected by fallen timber, deep water or rocky outcrops. The absence of the Snowy's once mighty reed beds is contributing to erosion of its banks. In Richard's knowledge of the river, most of this damage has only become apparent in the past 5 years.

Richard challenged us to find any kurrrajong trees that were not browsed up to horse height, or that had any seedlings near them. I found only one young kurrajong, growing in the middle of a large horse-unfriendly outcrop of boulders. It carries a big responsibility for seeding new kurrajongs! Similarly, the yam lilies, which had once been such an abundant food source, are now restricted to areas inaccessible to horses.



Deer and pigs also cause damage to vegetation. But NPWS are managing their numbers through aerial culling. In early spring, NPWS had successfully shot 2,000 deer in this area. Though the Snowy Valley had many signs of horses, especially dung, there were few signs of deer and pigs.

I can highly recommend this trip to any NPA members who are comfortable with bouncing around in rapids and who are fit. This part of Kosciuszko National Park is just as beautiful, and just as deserving of protection, as the 'postcard' alpine areas.

Linda Groom is a member of Canberra Bushwalkers and coordinated the Save Kosci 560 km protest walk from Sydney to Mount Kosciuszko in November and December 2018.

Spring rain brings blessings - and curses

Ed Highley reports on the invasion of two colourful pest plants and asks, what can we do about it?

It was a very colourful spring in Canberra and surrounds this year, the major hues being purple and yellow. I'm referring of course to the bloomin' Paterson's Curse and Capeweed, their explosions of colour brought on by the glorious abundance of rain that we had.

Letters to the editor of the local paper also proliferated, some decrying the invading weeds, others extolling their vivid painting of the landscape.

Paterson's Curse (*Echium plantagineum*) is an established weed right across southern Australia. The WA Agriculture website pulls no punches:

Paterson's curse is a declared plant (noxious weed) and is a target for biological control. **Paterson's curse** is an annual plant native to the Mediterranean region. It is a classic 'garden thug' having been introduced via mail order gardening catalogues in the 1840s, then rapidly invading agricultural land.

It's a thug because, when conditions favour it, it bullies useful pasture species, native grasses and forbs into submission. In its home range in Europe there is a large suite of insect species that make a living on Paterson's Curse and keep it under control.

Not so here. Couple this with the potential for swards of the plant to produce up to 30,000 seeds per square metre that can remain viable in the soil for up to 7 years, and one has the makings of Australia's worst broadleaf temperate pasture weed.

Stock animals will eat Paterson's Curse but it may harm them because the plant contains liver toxins. This is especially so for monogastric animals such as horses and there are numerous reported incidences of equine death. Ruminants such as cattle and sheep are not so prone to toxicity, presumably due to the extra processing capability of their multiple stomachs.

Paterson's Curse, nevertheless, has its friends. In South Australia, for example, it is known as Salvation Jane because its presence as the only fresh feed in the early spring can be a saviour for sheep farmers. Bee-keepers like it too, because its flowers are a good source of pollen for building up the strength of hives in the early spring.

Given the presence of an enormous, long-lived seed bank, eradication of Paterson's Curse is not feasible. Can it be controlled? On economic and environmental grounds, broad-acre chemical control is not an option. Biological control is the only possibility.

In the late 1980s, following rigorous safety testing, CSIRO began releasing Paterson's Curse biological control agents: insect species from its home range that feed on various parts of the plant. Some of these agents have established and there is evidence of their effectiveness in some locations, but it will be many more years before any level of overall success can be claimed.

The 'cape' in Capeweed (*Arctotheca calendula*) is Cape Province in South Africa from whence it stowed away to reach our shores. To date, at least, it is generally considered as more of a nuisance than a threat. A recent article tantalisingly titled 'Capeweed indicative of a larger problem', in the *North-East and Goulburn– Murray Farmer* (farmernews.com.au), for example, notes that:

[**Capeweed**] is a common weed of habitation and though increasingly becoming a problem in natural areas posing a threat to the integrity of plant communities, it is classified as merely [!] an environmental weed in Victoria and treated accordingly.



Fields of gold: Capeweed, at present, is generally considered as more of a nuisance than a threat. All photos by Graeme Taylor



Paterson's Curse: a thug when conditions favour it

Control of Capeweed over small areas by physical and chemical means may be feasible, but ongoing management is required. Some years ago, in a previous wet spring, we made a grand physical assault on the Capeweed in our local community garden at Kambah, putting paid to it, we thought, though at the cost of much soil disturbance. In the dry years between then and now we saw little of it but, following the rain, it came back this year with a vengeance.

Amazingly, if there is a dry spring next year, it and its purple associate will again pale into insignificance ... but only for a while.

NPA member Ed Highley has a particular interest in spreading the word on matters affecting the natural environment.

Paterson's Curse is recognised as Australia's worst broadleaf temperate pasture weed



Book review Black Mountain: a natural history of a Canberra icon

by Ian Fraser and Rosemary Purdie, Friends of Black Mountain, 2020, 155 pp, RRP \$35.

Black Mountain sits in the heart of Canberra, being one of the major landmarks, seen from the city and all our national institutions. If you want to know anything about the bush on Black Mountain, then this book is the essential introduction.

The book is published to mark 50 years since the area was declared a conservation reserve. This declaration followed many years of public lobbying for such a reserve, by community groups and especially NPA ACT.

The book is based on a symposium held in 2018, organised by the Friends of Black Mountain, and the subsequent published proceedings of that symposium. The great benefit to the knowledge of the natural history of Black Mountain is that the Australian National Botanic Gardens and several divisions of CSIRO sit at the foot of the mountain. Thus, many expert scientists could 'jump the fence' whether for a lunchtime walk, or more serious study, and accumulate much of the knowledge presented in this book.

The chapters cover all the required fields, starting from the ground up, with geology, vegetation, plants (including lichens and fungi), and animals. Not only does it describe what is there, but also analyses what has disappeared, and how Black Mountain compares with the other prominent hills in Canberra. The important subject of fire management and its implications for the vegetation is well covered.

An especially interesting chapter covers the people who have contributed to our knowledge of the mountain: plant and animal collectors, both professional and citizen scientists, and friends groups.

The book is an easy read, but packed with information, and well illustrated with photos from a long list of contributors. Special pages with distinctive orange borders cover topics such as mistletoes, scribbly gums and termites. A chapter on walks gives descriptions of four walks that would each give a different sample of the natural attributes of the mountain.

The great strength of this book is that it highlights the diversity of the bush that is within the centre of the city. Several species, such as orchids and insects, have been described following their discovery on the mountain, with some named after the mountain itself. It is expected that many more species will be found in this relatively small reserve, despite the extensive sampling already done. This book highlights the value of



Black Mountain

citizen science and the role of community groups such as the Friends of Black Mountain.

A few quibbles: the font is interesting, but with some numerical digits extending below the line, dates such as 1970 look a little 'ragged'. And an error in history, with Governor Arthur Phillip described as naming 'gum-trees' in 1770, 18 years before he landed in Sydney Cove. All in all, however, a great book to have as a reference to remind us of the diversity of the bush on our doorstep.

Copies can be purchased at FoBMPublicationSales@gmail.com or at selected bookstores.

John Brickhill is a member of NPA ACT and several Friends groups, and previously worked for NPWS in western NSW for 38 years.

New fossil emblem for ACT

The ACT has a new emblem – a 430 million-year-old trilobite fossil called Batocara mitchelli.

Canberrans were asked to vote on five fossils found locally, a graptolite, two trilobites and two brachiopods, to be the fossil emblem. All the contenders, chosen by an expert committee of geoscientists, palaeontologists, and science communicators, were marine invertebrates that lived in the Silurian oceans over 430 million years

ago. About 1100 people cast a vote, with the winner being announced by ACT

environment minister Mick Gentleman in October. The ACT Division of the Geological Society of Australia was instrumental in establishing the emblem.

The winning specimen was found in cores from geotechnical drilling during the construction of what is now known as the John Gorton Building in Parkes.

One of the most common fossils found in the ACT, *Batocara mitchelli* will be the fourth emblem for the territory. The ACT already has floral, faunal and mammal emblems.

The ACT is the fourth Australian jurisdiction to have a fossil emblem, following NSW, Western Australia and South Australia.



Trilobite—Batocara mitchelli

Gudgenby Art Week 25 October – 1 November

Moody October stirs creative juices

The creativity of NPA members was in strong evidence during Art Week at Gudgenby Cottage in October, says Adrienne Nicholson

The variable October weather with its moody variations of light and cloud during the annual Art Week at Gudgenby Cottage provided lots of scope for arty inspiration.

During the week the weather ranged from overcast, rainy, showery, sunny, windy, gusty, still, and cool – good for wandering about outside, sitting by the fireside, relaxing on the veranda and enjoying the ever-changing outlook and the wildlife going about its daily activities.

An Art Week had been arranged for May until circumstances overtook us, so it was great for a group to be able to go to Gudgenby, thanks to the generosity of Namadgi National Park management.

With all the rain, the rivers and streams rose and coalesced, and the torrents running through the gorge above the cottage were easily seen because the fires had devastated the big old eucalypt trees and dense tea-tree between the cottage and the gorge.

The starkness makes the reshooting hawthorns very obvious, and it would be a good time to try for a control program. Wildflowers put on a fine display across the grasslands and among the

Mating pair of Common Grass-blue butterflies



Gudgenby Homestead. All photos by Esther Gallant

rocky tors. Mushrooms sprouted aplenty and appeared in both the art works and our cuisine.

Birdwatching occupied much time, both in compiling a bird list and observing their interactions and daily lives. Dingoes were heard howling across the valley, and four were seen sauntering around. A goanna took to shelter under a rock when disturbed by a surprised passer-by.

The mellifluous sounds of classical guitar gently reverberated through the cottage and photographers provided some wonderful images that became the basis for the drawings, paintings and collages of others.

Others finished off writing projects or wrote about their stay or accomplished some basic weaving.

As well as seeing some of the old hands, it was good to welcome some new participants.

Participants. Adrienne Nicholson and Hazel Rath (leaders), Esther Gallant, Eleanor Cotterell, Filomena Barzi, Ian Kershaw, Rosemary Hollow, Sonja Lenz and Kevin McCue.

Adrienne Nicholson is an NPA ACT Life Member and organiser of many Art Weeks.

Leopard orchid (Diuris semilunulata)



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Gudgenby Art week

The overcast weather was ideal for photographers. Both photos by Adrienne Nicholson





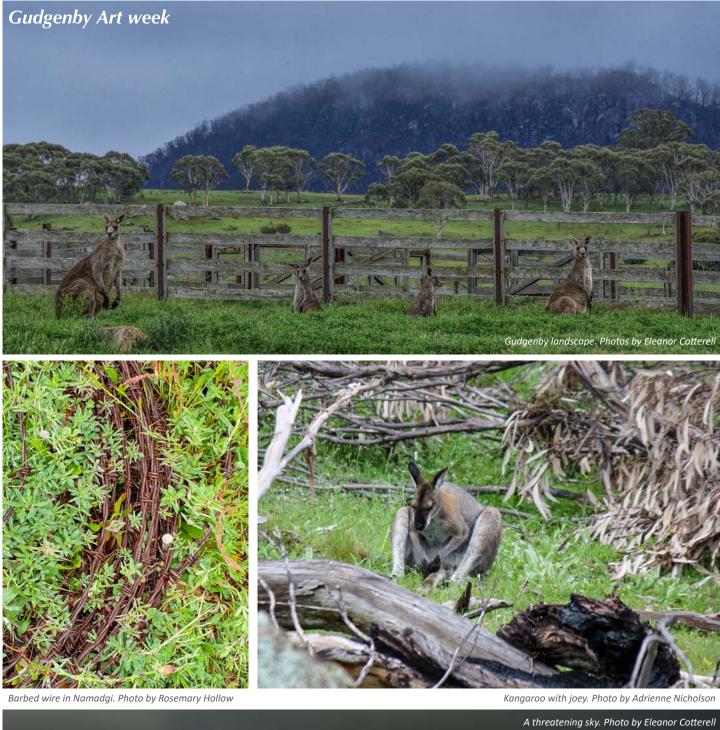














PARKWATCH

Radical change in Victoria park management

Victoria has been quietly undergoing a radical change in management arrangements for our finest remaining 'natural' areas. Most of our national parks now have formal, or sometimes informal, joint management agreements with Victoria's various traditional owner groups.

In August this year, the Victorian Government reached a settlement agreement with the Taungurung people of central Victoria. It gives the traditional owners the right to jointly manage one of Victoria's oldest national parks, Mount Buffalo National Park, as well as part of the Alpine National Park and Kinglake National Park, all of Heathcote Graytown National Park, Lake Eildon National Park, Mount Samaria State Park, Cathedral Range State Park, and some smaller reserves.

Parks Victoria has simultaneously produced, as required under the Ramsar Convention, a plan for Barmah's extensive Ramsar-listed wetlands. The two plans are in strong agreement, and might, in time, achieve a return to a more natural seasonal flooding regime for the park.

The Gunaikurnai people of Gippsland now jointly manage many parks: The Lakes National Park, Gippsland Lakes Coastal Park, Lake Tyers State Park, Mitchell River National Park, and Tarra Bulga National park among them.

While their traditional land takes in a southern section of the Alpine National Park, the settlement agreement doesn't include joint management there. And while it also takes in part of Snowy River National Park, a joint management arrangement exists over only a small but highly vulnerable, culturally sensitive area.

A similar planning process has taken place with the Dja Dja Wurrung, traditional owners of much of central Victoria. Their Dhelkunya Dja joint management plan takes in Greater Bendigo National Park, Kooyoora State Park, Paddy's Ranges State Park, Hepburn Regional Park and part of Kara Kara State Park, among others.

Park Watch (VNPA), No. 282 (Spring 2020)

Wait over: Kalbarri Skywalk opens

The highly anticipated Kalbarri Skywalk in Kalbarri National Park has officially opened, providing a major tourism boost for the Mid West region of Western Australia.

The opening of the universally accessible Skywalk marks the culmination of a \$24 million project to install two cantilevered platforms overlooking the Murchison Gorge, a kiosk, shade shelters, toilets, parking, 22 km of park roads, and upgrades to Meanarra Hill and Z Bend tourist sites. For the Nanda traditional owners, the facility showcases their culture and stories through interpretive and artistic elements. The state government is working with the Nanda people to explore opportunities for the management of the soon-to-open, environmentally friendly kiosk that will operate on low to nil emissions on an off-the-grid power system.

Kalbarri National Park is an iconic location, famous for its 80-kilometre gorge, coastal cliffs that plunge more than 100 metres to the ocean, striking wildflowers and many recreational activities. Annual visits to the national park have increased by almost 100,000 over the past 5 years to more than 450,000 last year.

> https://www.dbca.wa.gov.au/news/wait-over-kalbarriskywalk-opens

A national park named after Ben Boyd?

The Ben Boyd National Park was first reserved in 1971. Boyd was a well-known local figure, but more recently the name's suitability [Boyd saw blackbirding as the answer to his problems of finding workers] has been brought into guestion. Much-respected Aboriginal Elder, Uncle Ossie Cruse, says 'It's inappropriate. The name represents the genocide.' Traditional custodian Steven Holmes first called for the name change 2 years ago. Eden Local Aboriginal Land Council Chair, B.J. Cruse wants extensive consultation with the Aboriginal community before a new name is decided upon. The elders should be consulted first, but he would like to see the Aboriginal schoolchildren also involved The Ben Boyd National Park falls into two parts: one located south of Twofold Bay, the other to the north, to around the Pambula Inlet. They come within the Thaua language group and the Eden Local Aboriginal Land Council's area.

The Aboriginal community is looking forward to the consultations and might prefer different names for the northern and southern parts of the park. While many would happily see his name wiped off our maps tomorrow, it's not going to happen anytime soon.

The management plan is currently being reviewed to permit questionable developments along the Light to Light walk. Comprehensive community consultations will take quite a while. A formal resolution from Bega Valley Shire Council is required before it can be presented to the Geographical Names Board. By the same token, nobody's wanting to change the name of his tower, a folly, overlooking Twofold Bay. *Nature NSW* (Spring 2020)

Exciting find in Gippsland

The Conservation Regulator has made an exciting find in far East Gippsland, with a vulnerable frog species discovered during forest protection surveys, for the first time since the 2019–20 bushfires.

Almost 330 Giant Burrowing Frog tadpoles were found in ponds by Conservation Regulator contractors in the remote Maramingo area near Genoa as part of the Forest Protection Survey Program. Adult frogs were also recently seen and heard in forest areas near Nowa Nowa.

There were concerns the frogs, which are found only in Gippsland and parts of New South Wales, had been wiped out after most of their habitat was destroyed during the summer bushfires. Special protection zones have been created where the tadpoles and frogs were found, to safeguard the immediate habitat needs of the species from timber harvesting.

The Giant Burrowing Frog is one of six frog species protected under the Code of Practice for Timber Production. The Forest Protection Survey Program aims to protect animals and plants that are either threatened or of high conservation value in areas of state forests that are scheduled to be harvested. More information:

https://www.forestsandreserves.vic.gov.au/forestmanagement/forest-protection-survey-program.

www.delwp.vic.gov.au/media-centre/media-releases Bilbies return to Sturt National Park after 100 years

NSW Environment Minister Matt Kean has announced the successful reintroduction of the bilby into a large cat- and

fox-free area at Sturt National Park, more than a century since they were declared extinct in New South Wales.

Mr Kean said the bilbies, part of a new breeding program at Taronga Western Plains Zoo, will begin the process of returning the area to what it was before feral animals wreaked havoc on our native fauna.

'This is one of the country's most important threatened species initiatives. Australia has the worst mammal extinction rate in the world but we are turning back the tide of extinctions, reintroducing at least 13 mammal species currently listed as extinct in New South Wales by establishing a network of feral cat and fox-free areas,' Mr Kean said. https://www.environment.nsw.gov.au/news

New reserve: Wollemi State Conservation Area

The gazettal of the 2,300 ha Wollemi State Conservation Area (SCA) was announced in August 2019, along with other additions to Wollemi National Park.

This little-known new SCA is made up of formerly private land. The SCA land was part of the biodiversity offset lands that were transferred to National Parks and Wildlife Service (NPWS) in association with the planning approval for the Huntlee New Town development near Cessnock. Thus, it became 'Part 11 land' under the *National Parks and Wildlife Act*.

The Huntlee offsets came with a developer financial contribution to the NSW Office of Environment and Heritage to use in the management of the resulting conservation offset reserves.

A Nature Conservation Council report into biodiversity offsetting in NSW stated that the Huntlee development would clear approximately 421 ha of endangered ecological vegetation.

It is understood that the Huntlee offset land parcel has been added to the national park estate as a state conservation area because of its potential for mining. More specific information on the Wollemi SCA's particular conservation values as a stand-alone SCA should be available from NPWS soon.

Nature NSW (Spring 2020)

QPWS bushfire recovery program for threatened species

The Australian bushfire season of 2019–20 was unprecedented in terms of its scale and intensity. In Queensland, over 7 million hectares were burnt, including important habitats for more than 600 threatened plant and animal species

The fires burnt significant areas of fire-sensitive ecosystems, such as remnant semi-evergreen vine thickets at Oakview

National Park, and rainforests – including the high-altitude temperate rainforests of Mount Superbus in Main Range National Park.

The conservation status of the priority species in the QPWS projects vary from 'near threatened' in Queensland to 'critically endangered' at the national level. The Gondwana Rainforests World Heritage Area contains the most biota for post-fire evaluation, with 22 threatened plant species, and 13 vertebrates.

By working closely with QPWS, other Commonwealth grant recipients are delivering complementary activities to those underway on national parks to contribute to a more effective landscape-wide approach to wildlife recovery.

QPWS will continue to collaborate with organisations that can help the recovery of threatened species and protect them from the risk of future bushfires.

The proactive management of fire hazards or complementary pest control programs on properties adjoining protected areas, such as by private landholders and First Nations people will be an essential part of ongoing efforts to protect our unique biodiversity, especially those most at risk from the effects of a changing climate.

Protected (NPAQ), (Spring 2020)

AG criticises assessment process

The long-awaited report by the state's Auditor-General into the Tasmanian Government's call for expressions of interest for tourism investment opportunities (EOI process) was released on 22 September 2020.

Some media are describing the report as endorsing the state government's policy of unlocking our national parks. This is nonsense! The Auditor-General's inquiry was into the EOI process. This is the mechanism for implementing the unlocking policy, not the policy itself.

Careful reading finds that the report criticises both the EOI process and the Parks and Wildlife Service's Reserve Activity Assessment (RAA) process, most notably '(the) RAA is not geared to deal with more complex proposals received through EOI'.

The TNPA's plain English translation of this bureaucrat-speak is 'RAA is not fit for purpose', which is what we have been arguing ever since the EOI process was first announced.

The reform of both the EOI and RAA processes is essential if Tasmania is to achieve public confidence in decisionmaking.

> https://tnpa.org.au/news Compiled by Hazel Rath

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wo giants of the ACT/NSW border

peaks basking in the first light of the day. Photo by Stefan De Montis

Mount Murray and Bimberi F

NPA Bulletin board

National Parks Association of the ACT calendar



				117
	December	January	February	March
Public holidays	Friday 25 th – Monday 28 th Christmas	Friday 1 st – New Year's Day Tuesday 26 th - Australia Day	-	Monday 8 th Canberra Day
Committee meetings	Tuesday 1 st	-	Tuesday 2 nd	Tuesday 2 nd
GBRG*	Saturday 12 ^{th**}	-	-	Saturday 13 ^{th*}
General meetings	Sunday 13 th – Christmas Party*	_	Thursday 18 th	Thursday 18 th

* See Outings Program for details

** Work and Christmas party

NPA ACT welcomes the following new members

Daniel Charron & Helen Hunter Jenny & Graeme Barnes Paul & Anna Regan Lois Padgham & Bernard Morris Donna O'Brien Jenny Atton Julie Taylor & Mark Stevenson Susan Anderson & Madison Lam Boronia Halstead Peter Hutchinson Thea, Luke & Ash O'Loghlin Jodie, Craig, Thomas & Samuel Lewis Rob, Lisa, Sarah, Naomi, Elley & Brock Clements Julie Crawford & Paul Davies John Geasley Lynne Bentley Harry Needham Sammy Hawker

And complimentary memberships for the NPA photo competition winners:

Anna Streatfeild Joel Davis Charlotte Stone Stefan De Montis Leandro de Souza Richard Southerton Miah-Tya Nungheena Gowland Sam Payne Sam Provost

We look forward to seeing you at NPA activities.



NPA Xmas party

Sunday 13th December at Namadgi Visitor Centre

Weather permitting, we are having an outside picnic at the Namadgi Visitor Centre from 11:30 on. Should it rain we will move inside for our picnic.

Bring your own picnic lunch as well as a chair and picnic table if possible. Some drinks and cakes will be provided.

This is an opportunity to meet up with your NPA friends again (with social distancing!).

Please check the website for any changes and more details closer to the date.

GBRG Xmas party

Saturday 12th December at Gudgenby Cottage

Bring something to share for a festive lunch after a morning work party.

Please see the outings program, but check the website closer to the date for possible changes.

Open day at Namadgi Visitor Centre

Saturday, 23 January 2021

Parks ACT and the Namadgi Visitor Centre will have an open day to celebrate NPA ACT's 60th anniversary. NPA ACT members will be there to greet visitors, talk about our activities and show of our new information stall materials. We also expect that our new work party trailer with indigenous artwork will be on display.

Butterfly walk in Aranda Bushland

Saturday 16 January 2021

Leader: Suzi Bond, NPA member and author of the *Field Guide to the Butterflies of the ACT*

Join us at 10:00 am for a 2-hour walk to see what butterflies we can find, and to learn something about their caterpillars: what they eat and their mutual relationships with ants. We should see a good mix of woodland and forest butterflies, such as Common Brown, Marbled Xenica and the Imperial Hairstreak.

Bring binoculars or your camera to help with the identification of any butterflies we see. Numbers are limited. Contact for registration and details of meeting point: 0457 380 860 or sonjalenz67@gmail.com.

General meetings

conservation education protection

Third Thursday of the month, 8.00 pm, Uniting Church hall, 56 Scrivener Street, O'Connor

Please refer to Burning Issues or the website, in case the general meeting is online.

Thu 18 February Climbing and trekking in Pakistan

Zac Zaharias

Mountain climber and adventurer

Few Australians are aware of the incredible rugged beauty of Pakistan. Accomplished veteran mountaineer, Zac Zaharias, will share some of his experiences of climbing and trekking in this amazing country. Zac is one of Australia's leading high-altitude climbers and has summited six of the world's fourteen peaks above 8000 metres.

> Thu 18 March Speaker TBA Please have a look at our website closer to the date

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.

Office-bearers

Esther Gallant
Cynthia Burton
Sonja Lenz
Bernard Morvell
Debbie Worner



Committee mer **Mike Bremers** Chris Emery Rod Griffiths George Heins Rosemary Ho Kevin McCue Allan Sharp



Conveners

Bulletin Working Group	Kevin McCue
Cultural Subcommittee	Rosemary Hollow
Environment Subcommittee	Rod Griffiths
Outings Subcommittee	Mike Bremers
Publications Subcommittee	Kevin McCue
Promotion and Outreach Subcommittee	Allan Sharp
Work Party Co-ordinator	Martin Chalk

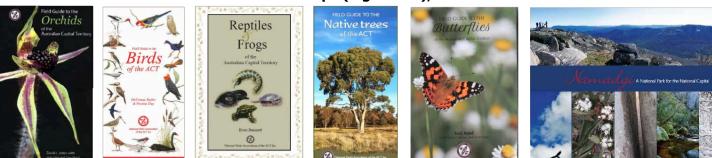
Membership subscription rates (1 July to 30 June)

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.

NPA books are available from some bookshops (e.g. ANBG), or contact the association office.



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For information on NPA ACT activities, please visit our website: http://www.npaact.org.au and follow us: Instagram: https://www.instagram.com/npa_act/ Twitter: https://twitter.com/Lovenature321 Facebook: www.facebook.com/NationalParksAssociationOfTheACT

