



NPA *Bulletin*

Volume 45 Number 1 March 2008

National Parks Association of the Australian Capital Territory Inc



**Orchids thriving in
the Budawangs**

**Adventures in NZ
and Chile**

**Bushfire
Management Plan
progresses**



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

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From the President



Welcome to the first regular colour-covered *Bulletin*, the result of a lot of hard work by our Publications Sub-committee. Now those wonderful photos which have always been a feature on our front cover can be published in glorious colour. It is no coincidence that we

are also holding a photo competition, so your entry could end up on the cover of the *Bulletin* if it does not make it into the 2009 calendar.

Many of us have been out in Namadgi this summer trying for that winning photo and enjoying the wonderful display of wildflowers. The trigger flowers, vanilla lilies and hyacinth orchids along Orroral Ridge were wonderful this year, maybe a little thank you for the hard work we did last year to protect it from the bulldozers. What is surprising is how little promotion the ACT government gives to Namadgi, given how lovely it is looking now. When the temperature in the city was 35 degrees, we were walking along the Bendora track in comfortable shade and a cool breeze. How many of the tourists trying to find a bit of shade around the lake would have preferred to have been up in our mountains enjoying the views and the wildflowers?

Tourism in national parks and reserves has been on our minds since the new Minister for Tourism, Martin Ferguson, announced in December that he wanted to see more tourism

infrastructure built in national parks to attract international tourists. When we dug a little deeper, we found a strong lobbying effort from organisations like the Transport and Tourism Forum to alter legislation to increase private enterprise in national parks. The federal government may have changed but the lobbyists barely drew breath before clothing their demands in the colours of the new government.

It seems to me that the ACT also hasn't resolved this conflict between generating income from parks and reserves and protecting their role in conserving our native flora and fauna.

The government has designated Tidbinbilla Nature Reserve as its key tourism venue and revenue raiser with over \$3 million spent in recent years on the new wetland discovery centre and a children's playground. The idea is that Tidbinbilla would act as an entry-level experience for visitors who are unfamiliar with the Australian bush. It would be a shame, however, if that was the full extent of visitors' experience of the Bush Capital but we are unaware of any plans to link the promotion of Tidbinbilla to the rich natural and cultural treasures of Namadgi. It's a bit like taking your children to a water slide at the coast but not taking them to the beach.

There is a lot more the private sector could be doing without having to build private facilities in our parks and reserves. Tharwa, as the gateway to southern Namadgi, has tremendous potential to provide such services but is hamstrung by a lack of promotion of the park and the problems with the Tharwa Bridge. In the meantime, we can enjoy Namadgi's treasures and take award winning photographs to our hearts' content.

Christine Goonrey

Welcome to two new Committee members



At the NPA's Annual General Meeting last August two new members were elected to the NPA Committee. They are Annette Smith and Mike Bremers. Both have been actively involved in several aspects of the NPA's operation for some time (in Annette's case for decades!). Both are keen walkers and campers, and

Mike is also a keen kayaker, well known for his long-distance journeys on the rivers of the Murray-Darling Basin. For Annette, NPA is very much a family concern: husband Mike Smith was Treasurer for many years and is currently our Outings Convenor.

If you are interested in becoming

involved on the committee, give it some serious thought between now and next August. It can be a very rewarding experience, the company is excellent, and new blood is always very welcome!

NPA publishes historic sites monograph

Hot on the heels of NPA's new edition of its *Field Guide to the Native Trees of the ACT* (published October 2007) comes Colin McAlister's NPA monograph *Twelve historic sites in the Glenburn and Burbong areas of the Kowen Forest, Australian Capital Territory* (published December 2007).

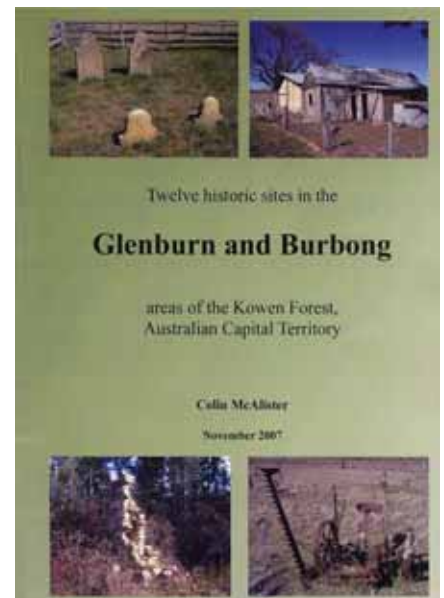
In her foreword to the monograph NPA President Christine Goonrey comments that we often come across old ruins when we are out walking: slabs of timber, old fences, bits of iron. We know they are the remnants of people's lives and we sometimes speculate about the stories behind the weathered remains lying in the grass.

This monograph documents the rich history of 12 of the sites at Glenburn and Burbong, and suggests routes for a

couple of walks to visit the various sites. The area is coming under increasing pressure for development, and significant changes are in prospect. Christine notes that if we don't care for these sites we risk losing not only a noteworthy bit of our own history but also an awareness of how people lived and what was important to them. Colin's work reminds us that the preservation of our history is in our own hands.

Copies are available from the NPA office at a cost of \$15 each.

NPA's next publication will be its field guide to the native orchids of the ACT. It is planned to release this at the May Symposium (see the back page of this *Bulletin* for information about the symposium).



Reminder ! NPA ACT Symposium

Corridors for survival in a changing world

Friday and Saturday 9 and 10 May 2008 at the CSIRO Discovery Centre
See the back cover of this *Bulletin* for full details.

Website

www.npaact.org.au

Make sure our Website is on your Favourites List. The website contains full and up-to-date details of all activities and issues NPA is involved in. It has very useful links to a wide range of related sites.

Emergency Services Commissioner revisits NPA

Since the 2003 fires there has been a number of inquiries into what went wrong, and how such catastrophic events may be avoided in the future, or at least how their worst impacts may be avoided. These issues naturally impact upon management regimes for public and private lands in the ACT, and especially for Namadgi National Park. NPA has been very vocal in putting its case for ensuring that the environmental and conservation values of the park are protected and not compromised, and its involvement in this process has been well documented in preceding issues of this *Bulletin*.

In recognition of NPA's role and concerns, the ACT Emergency Services Commissioner, Mr Gregor Manson, came along to the July general meeting of the association to answer members' questions, and also agreed to return and make a more formal presentation to a later meeting. This happened at our November general meeting, when Mr Manson came with the ESA's Manager Strategic Planning, Mr Nick Lhuede.

Mr Lhuede commenced the presentation with a review of progress to date of the Strategic Bushfire Management Plan (SBMP). Version One of the SBMP was released in January 2005, and grew out of the McLeod Report (August 2003), and the House of Representatives Select Committee Report (November 2003).

The Coroner's Report on the January 2003 Canberra Firestorm (released December 2006) contained 73 separate recommendations, including one (R 21) that Version Two of the SBMP be completed and introduced without delay. In its response in February 2007 the ACT Government agreed — the review was to commence in 2007–08, with a draft by June 2008 and completion by 2009.

Mosaic burning

Among the Coroner's other recommendations was that a hazard-reduction program be introduced, involving regular and strategic burning in all areas of the ACT — including the catchment areas — with a view to having fuel reduced areas in a pattern across the landscape, excluding only small areas of particular ecological or conservation importance. The Government's response was qualified agreement.

The review of the SBMP will include

fuel management strategies to address bushfire risk. The Bushfire Operational Plans will describe a desirable pattern of mosaic burning to achieve fire prevention and ecosystem management objectives for the ACT, including catchment areas. The Government does not agree that all areas should be subject to hazard reduction burning.

Mr Lhuede reported that work on the new SBMP is well advanced. Involvement and consultation with stakeholders is an important feature of the process. ESA has set up a Bushfire Management Plan Committee to provide advice on the content, structure and objectives of the review as well as advice on the progress of working groups. The committee is chaired by Commissioner Manson and includes representatives of interested community and conservation groups as well as TAMS and the various fire services. NPA President Christine Goonrey is the Conservation Council representative.

Key themes

Eight key themes have been identified, two of which are Environmental Recovery and Government Managed Lands. A writing team has been established to address these themes, and working groups, involving non-government bodies such as NPA as necessary, will be set up to report on some of the more complex issues raised.

With regard to Government Managed Lands, Mr Lhuede noted that a number of "core principles" had been considered by the Bushfire Management Plan Committee. Although still in draft form, these principles are as follows:

- The protection of landscape, environmental, production, indigenous and cultural heritage values will be integral to asset protection.
- Fire management needs to recognise that the dynamic nature of natural ecosystems requires clear, agreed objectives and an adaptive approach to fire and environmental management.
- European land use management is likely to have already altered the natural fire regimes in many areas of the Territory. Although we lack the knowledge of the exact impacts of these changed fire regimes on our natural ecosystems, fire managers will use the best available knowledge to determine the fire regimes thought

necessary to maintain the ecological integrity of these systems.

- In order to protect built, natural and rural production assets in the ACT from unplanned fires, planned fire regimes will be applied in carefully selected places to manage fuel loads in natural areas. In some parts of the Territory, the planned fire regimes may be similar to ecologically-based fire regimes desirable to regenerate the bush. In other areas the planned fire regime will be different from the natural regime, and likely to cause changes in the natural ecosystems present. Such choices will be made in light of the relative importance of the assets to be protected and changes to the overall bushfire risk assessment.

Mr Lhuede noted that the revised SBMP will be principally web based, and will include the use of interactive mapping with links to detailed supporting and background information. Mapping of base layers for Namadgi is nearly complete. The Commissioner favours the model of having base information agreed and then having particular people around the table to draw and agree on the best protection system for a patch (with assistance from professionals) so that you get down to a "gully by gully" map.

The Commissioner wants it to come through strongly that the environment is an asset to be protected along with Aboriginal sites, historic sites, etc. He is keen to have an implementation plan at the back of the revised SBMP with annual reporting on that plan. He wants to show that good hazard reduction with the right balance has a good direct cost–benefit outcome.

There was spirited discussion both during and after the presentation, and both speakers made it clear that active NPA participation in the process was to be sought and encouraged, and that they would be happy to come back and further report on progress at a later date.

Max Lawrence

(with thanks to Nick Lhuede and Michael Goonrey for their assistance)

Orchid car camp



The group of seven gathered for morning tea at Bungendore on the last Tuesday in October. It was an easy start to a leisurely four days camped on the Shoalhaven and testing routes in the Budawangs.

Despite concerns of the leaders Di and Gary about the general degradation of the Oallen Ford camping areas, a pleasant site was occupied on the riverbed stones with excellent access and views to the Shoalhaven River. Babette entertained us in the afternoon with stories and exploration of former mining sites that were in close vicinity to the Oallen Ford. The bird life was good and included two large flocks of black cockatoos, the flight of ducks going in both directions, gang gangs, the boobok owl each night, bower bird, swifts/swallows and parrots. We also heard a large lace monitor scurry up a tree and were then able to watch it, from a distance, for some time.

However, it was the following two days in the Budawangs which delivered the real highlights of the trip. A failed attempt to find an appropriate route to the Endrick River and Gilberts Gap from the Budawangs Nerriga entrance allowed Adrienne the opportunity to peruse the ground on the slopes close to the cars.

Better and better

The first sightings of duck orchids were made. Things got better and better, with Deidre discovering a veritable garden of 20 duck orchids. In between we “wowed” at donkey orchids, many more duck orchids, bearded orchids and, finally, when Di got the group to stretch their legs along the Alum Fire Trail, we were rewarded with a large and beautiful sun orchid.

The next day, we returned to the Budawangs, taking a different route off

the Nerriga Road and again saw many orchids. Whilst waiting for Debbie and Gary to undertake a road bash and to return with the cars, Esther and Adrienne re-explored our previous lunch spot beside the Corang River and were rewarded with further yellow and pink donkey orchids.

The two-night camp at Charleyong was pleasant — it has some huge sweeps of sandy beach and safe swimming. Camp fires and even platypuses on the second morning added to our success tally. However, the forecast of welcome rain (and good rains over the last night) led us to break camp early, and on the way home we visited one of the sectors of Nadgigomar Nature Reserve. Whilst at that time the nature reserve did not rate as the orchid capital of the district, it had its own beauty and like the Shoalhaven camps, especially Charleyong, it beckons us back.

Di Thompson



Above left. Lunchtime among the flies at the edge of the Budawangs (l to r) Gary Thompson, Di Thompson, Deidre Shaw, Adrienne Nicholson and Debbie Cameron.

Photo Esther Gallant

Above. Esther Gallant in photographer mode among the orchids at the Corang River picnic ground.

Photo Adrienne Nicholson

Below left. A beard orchid, Calochilus sp, near the Alum car park.

Photo Esther Gallant

Below. A sun orchid, Thelymitra atronitida, on the Alum Fire Trail.

Photo Esther Gallant



Revegetation of the Boboyan Pine Plantation

The Gudgenby Bush Regeneration Group (GBRG) was formed in May 1998 to involve the community in a Park Care Group with the job of rehabilitating 380ha of land that supported a pine plantation in the southern part of Namadgi National Park. The group has been meeting every month to do weeding, tree planting or seed broadcasting. Current membership stands at around 22 and we have between eight and 12 active members who attend most work parties.

The Boboyan Pine Plantation, consisting of *Pinus radiata*, was established in 1966 in an area which had previously been cleared and used for grazing. In 1979 the plantation was included in the Gudgenby Nature Reserve and in 1984 it was included in Namadgi National Park. The 1986 Plan of Management for the park recommended the removal of the pines and replacement with suitable native trees and shrubs.

After extensive lobbying from the National Parks Association of the ACT Inc (NPA ACT), the ACT government made a commitment in 1995 to harvest or remove the plantation and rehabilitate the site. The removal of the first pines began in 1997. The plantation was divided into compartments. Some areas contained harvestable timber while others were considered non-commercial and were clear-felled. The pine slash in these areas was left on the ground and later burnt to provide an ash bed into which seed could be broadcast. A quantity of local seed of appropriate species, estimated to be enough to complete the project, was collected by contractors, on behalf of the ACT Parks and Conservation Service.

In the winter of 1998 GBRG initiated the first of many work parties by seeding the first cleared areas with local seed consisting of *Acacia dealbata*, *A. rubida*, *A. melanoxylon*, *Eucalyptus rubida*, *E. dives* and *E. pauciflora*. *E. stellulata* was planted along creek lines. By 2005 all the pines had been removed and the whole area seeded or planted to local



Gudgenby Bush Regeneration Group members at their Christmas Party last December (l to r) Kevin McCue, Sonja Lenz, Hazel Rath, Syd Comfort, Frank Clements, John Waldren, Clive Hurlstone, Adrienne Nicholson (almost hidden), Brian Slee and Tim Walsh.

native species. The area is now known as the Gudgenby Bush Regeneration Area.

Monitoring program

In addition to the rehabilitation work, a monitoring program was established to record growth rates and to determine what methods of plant propagation worked best so that techniques could be modified to suit appropriate local conditions. A Natural Heritage Trust grant in 2000 enabled GBRG to set up 11 400m² netted exclosures in the Hospital Creek compartment so that grazing and browsing by macropods and rabbits could be monitored, as well as providing a seed source for that section. Ten of these exclosures were planted out with seedlings in the year 2000. One was left unplanted as the control. Leaf litter from nearby woodland was placed in six exclosures to see if this created a greater diversity by introducing propagules.

In October 2006 a group of students from NSW TAFE (Goulburn campus), supervised by two teachers, conducted a survey of four exclosures within the Hospital Creek compartment. All vegetation species present in the exclosures were recorded. A quadrat outside each exclosure, of the same size (20m×20m), was pegged out and similarly surveyed. This “outside exclosure” quadrat was chosen randomly to provide a comparative analysis with respect to grazing pressures. An estimate was also made, for each quadrat, of the

percentage cover of bare soil, surface litter, rock and weed.

Grazing of rabbits and kangaroos was evident outside the exclosures from both animal scats and the reduced height of grasses and herbaceous plants. However the difference between numbers of species in and out of the exclosures was only minimal. The only exception was one exclosure which had been treated with leaf litter which had a higher value for the ratio of native species to weeds.

There was also little difference in the number of tree and shrub species in and outside the exclosures,

and in some cases the trees outside the exclosures were greater in number and health than inside. Snow gum was the most common tree followed by candlebark gum. Grazing outside the exclosures puts greatest pressure on the herbaceous species.

From the eight quadrats surveyed there were nine species of the 94 identified in the survey that were only found within exclosures. These were: billy buttons (*Craspedia variabilis*), matted bossiaea (*Bossiaea buxifolia*), common stork's bill (*Erodium crinitum*), spiny-headed matrush (*Lomandra longifolia*), hairy panic (*Panicum effusum*), rock tussock (*Poa saxicola*), poa tussock (*Poa sieberiana*), kangaroo grass (*Themeda australis*) and bedstraw (*Galium ciliare*). We can assume that the exclosures are protecting the above species from grazing mammals.

Other data to monitor germination and growth have also been collected from eight transects set up in various locations as the compartments were seeded. Transect records indicate that while growth is slow and frequently patchy, many trees are being established. Overall, the eucalypts have germinated much better than the acacias.

Evaluation

Nine years on and all the pines have been felled except for the occasional one

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Fraser Island Great Walk

21-25 October 2007; Brian Slee, with Peter and Cheryl Harris of Melbourne.

We set up camp in the afternoon in the middle of Fraser Island at Valley of the Giants after catching the 4WD taxi from Kingfisher Bay on the west coast of the island. There were three of us, one of whom had never previously done an overnight backpack walk. We hoped for fine weather to maintain morale but after being mobbed by mosquitoes and leeches, we had hardly finished dinner before being driven into our tents by rain.

I had whinged that we should not be attempting the walk in late October as it would be too hot (the recommended period is April to September). We seemed set for a miserable time. But the



threats abated: it stopped raining next morning and we were to have four days of walking on a firm, wide, well-marked track through beautiful country in

moderate temperatures. We began to appreciate the gigantic satinay (turpentine) forest in which we found ourselves.

The mosquitoes did hang around, however, and we were also to be visited by biting March flies and a couple of ticks. Long sleeves and trousers recommended. We were promised sandflies but they must have been feasting elsewhere. Walking in winter would minimise problems with bugs.

Being a simple soul, I sang some of the olde melodies and the audience seemed appreciative. Well, sort of — at times my termination was mooted. Our first day of walking concluded with a balmy evening at the campsite above Lake Wabby; in the afternoon we had lunch and a swim down at the lake.

Walkway newly opened

Fraser Island Great Walk is only newly opened. It commences on the Pacific coast at Happy Valley, two days north of where we began, and stretches about 75km south, inland, through forests and woodlands and past freshwater lakes back to the coast at Dilli (Dillingham)



Above. Peter Harris, Lake Boomanjin.

Left below. Cheryl Harris cooking on a wooden platform adjacent to a dingo-proof chest, Lake McKenzie campsite.

Photos Brian Slee

Village. With side trips, which are formally part of the track, it is 90km and can be completed in seven days. Many stretches are straight and level or ramped; the undulations are modest with only a few climbs of 100m. We finished walking each day by early afternoon. The only trudgingly soft surfaces were on short access routes to Hammerstone and Wongi sandblows.

Campsites carved from the bush have been established at regular intervals, all with a toilet. Plenty of water is available and although untreated, looks okay. Wood fires are banned. There is no shelter but the dingo-proof chests, with adjacent wooden platforms, are useful assets. Pre-paid fees apply, currently \$4.50 per night per adult (families \$18). Some sites are surrounded by dingo-proof fences. Dingoes were present at Lakes Wabby and McKenzie but we

(continued on page 8)

Revegetation of the Boboyan Pine Plantation (continued from page 6)

that has eluded the keen eyes of the GBRG group members.

What have we learned and achieved?

- Seeding soon after the burning of the pine trash produced the best germination results
- light surface cultivation of the soil is generally sufficient to allow germination to take place
- seeding near burnt pine logs offers protection for young seedlings
- planting seedlings in rip lines does not necessarily provide for good cover of plants once germinated, because if some die there are obvious gaps in the landscape. While this method has worked in some parts of the

regeneration site, in other parts many seedlings died due to lack of water

- planting seedlings randomly has provided an improved success rate because it allows choice of planting position according to factors such as how stony the soil is and possible protection. In addition, even if some plants die, the gaps are not so obvious
- grazing and browsing by kangaroos, wallabies and rabbits is a major problem. Young seedlings frequently show signs of grazing and physical damage
- spraying and weeding of blackberries, in particular, is a vital part of the program as they have the potential to

out-compete young eucalypts and acacias.

A project of this size has not been attempted before in the ACT and without the enormous amount of work that went on behind the scenes, with support from NPA volunteers and park staff, this project would never have succeeded. Congratulations should be given to the regular members whose tireless efforts have made a very great difference to the landscape.

Hazel Rath and Clive Hurlstone

(This is an edited version of an article first published in Australasian Plant Conservation Sept-Nov Vol 16 No 2 2007)

A bushwalking record

Walk: Lake Albina, 13 January 2008.

Participants: (7) Brian Slee (Leader), Libby Viccars, Steven Hill, Howard Viccars, Kathy Saw, Chris Paterson, and Mike Bremers.

Weather: Fine, fast moving low cloud at first, sunny from mid-morning; strong north-west wind.

Leader's Comments: A testing walk with three steep climbs. Good wildflowers.

After gathering at Wanniasa at 7am and collecting Mike from Johnson Drive, we were at Charlotte Pass before 9:30. Cloud was whipping and swirling across the landscape and it was only the forecast (for the cloud to clear) that was reassuring. The forecast was okay.

Crossing the Snowy stepping stones was a doddle. From there we followed Club Lake Creek to the waterfall/pool

and rounded the slope descending from Mt Clarke before heading for Kunama ruin for a relax. Billy buttons were prolific, daisies good in swathes, some having passed away. Patches of triggers caught the eye. A few gentians and bluebells were already open. It was breezy, subduing the flies; nevertheless, several were swallowed.

The steep climb to Moraine Pass was broken with a rest high above the valley — it is one of the unexpectedly brilliant views in KNP. Imax vision across the Main Range (Lee, Carruthers, Twynam) and down the valleys to Snowy River.

Heading west around Northcote we encountered sunray daisies at their “fried egg” best, resisting blasting winds. Two of the party headed direct to Mt Lee while the rest descended to Lake Albina for lunch at a cosy cove, lined with sphagnum and green grass, festooned

with “flowers of the field”. No anemones. A white-lipped snake poked around the shore.

The group reunited past Mt Lee where the wind blast was strongest all day, so we wasted no time descending to Club Lake. Sunrays could be seen terracing many levels of Carruthers. After another stop, at Club Lake Creek, we wandered along the creek and across field to the main track. A brilliant clump of big yellow daisies seduced the photographers. The final climb was to Charlotte Pass.

After the usual afternoon tea at Jindabyne, we were back in Wanniasa soon after 7pm. Maybe too strenuous a walk meant mainly to see wildflowers. But a beauty.

Brian Slee

Fraser Island Great Walk *(continued from page 7)*

were not troubled by them. Numbers have been significantly reduced by Government action.

Lake McKenzie and Central Station are the main points of intersection with vehicle-based tourism. Neither location has built accommodation and so they are quiet except between 10 am and 4 pm. After sharing Lake McKenzie with about 100 others during the day, the lake was ours alone at sunset. The whiter-than-white sand extends into the water about 15 metres, turning the water blue, beyond which it appears black. Papery melaleucas extend their roots vast distances into the lake.

Choice of routes

When proceeding from Lake Wabby to Central Station there is a choice of routes via Lake McKenzie or Pile Valley. We went via the lake but on the return taxi trip from Dilli to Kingfisher Bay we

drove through Pile Valley where there is, within a great forest, an extraordinary hoop pine plantation. So if time permits, a side walk in that direction would be rewarding. The taxi service, incidentally, is highly recommended.

We visited Basin Lake on the way from Lake McKenzie to Central Station: it is not an official campsite but could be a suitable alternative to Lake McKenzie or Central Station. Basin by name, and appearance, with a greenish-yellow (but healthy looking!) tinge to it.

In five days we saw six other walkers, all in camp, none on track. Lake Benaroon, our fourth night camp, is not on the tourist circuit and we had it to ourselves. It is shallower than McKenzie and tannins tint the water. Apart from the western beach, it is surrounded, but not crowded out by, reeds, melaleucas and tree-size banksias. Like all the lakes, it is a good temperature and we all had a refreshing swim.

A delightful, poetic sort of a place. Lakes Birrabeen and Boomanjin are more accessible but have similar appeal.

Lace monitors are very common, rustling the undergrowth,

but they should be avoided at Dilli where they have become accustomed to being fed. The birdlife is prolific: the highlight for us was a pair of red-backed wrens scuttling through shrubs at Lake McKenzie. Alas, the spangled drongo eluded our gaze. Nor did we see any snakes.

Most walkers proceed north from Dilli to Happy Valley but there appears to be no significant advantage either way. Anyone planning to do the track might consider beginning by walking a stretch of the magnificent eastern (Pacific) beach, taking care to make themselves visible to traffic. A warning about Dilli Village — it is a privately operated camping/study area with no supplies available.

It had been 25 years since I last visited Fraser Island and I had heard that it had gone to the dogs. Some of the 4WD tracks, eg, Cornwells Road leading up the hill out of Kingfisher Bay, take a pounding. But on the Great Walk you are largely away from the hurly burly and concern diminishes.

The Fraser Island Great Walk topographic map, available from QPWS for \$3.50, is a gem. There are now a series of “Great Walks” established in Queensland, in the vicinity of Babinda, Proserpine, Mackay, and the Sunshine and Gold Coasts. Go do 'em and tell us what you think. Eh?

Brian Slee

*Second Beach, Lake McKenzie.
Photo Brian Slee*



Christmas Party 2007



Around 60 of us turned up at the NPA's Christmas party in December, and a jolly good old time was had by all. The gathering took place at Blue Range Hut off the Brindabella Road, the weather was excellent and so was the company.

The traditional auction of surplus walking and camping gear was especially successful. Members were extremely generous in donating a very wide range of quality items, some of which were quite valuable. People were also generous in their bidding, and the result was a contribution to NPA coffers of a little over \$700.

An additional \$100 was subsequently realised on the sale of a pair of near new Scarpa boots when we found a buyer with the correct sized feet post party. So Santa was very nice to NPA and Treasurer Rod Griffiths is very happy.

Thanks very much to all concerned.



Photos, clockwise from above.

Wardrobe malfunction! NPA Vice-President Chris Emery and Treasurer Rod Griffiths turned up in identical shirts. (SF)

The auction in progress; Tim Walsh models the very latest in backpacks (not!) before auctioneer Max Lawrence. (SF)

Some of the party under the shade of the Blue Range Hut verandah. (SF)

Marie Lawrence and Maxine Esau. (ML)

Tim Walsh and Judy Webster. (ML)

Steven Forst and Rod Griffiths. (ML)

Steven (Santa) Forst, Maxine Esau, Neville Esau, Tim Walsh, Janet Thompson and Ross Walker. (ML)

Photos by Sabine Friedrich (SF) and Max Lawrence (ML).



Kahurangi National Park 2007

Kahurangi National Park is one of New Zealand's newest (established 1996) and largest parks (452 002ha), with a high alpine biodiversity and varied geology. Although a few tracks, such as the Heaphy, are well known, there are many others and a very large untracked wilderness area (the Tasman Mountains). There are signs of gold-mining, asbestos mining and grazing in the 19th century. And although there is no

permanent snow cover, there are signs of glaciation including many glacial lakes. In short, the area is reminiscent of SW Tasmania.

Dragon's Teeth

On the eve of Waitangi long weekend (which marks the treaty with the Maori), Judy and I joined five friends from Australia (including two from Canberra) and arrived at Trilobite Hut in the Cobb Valley, NW Nelson. We were to attempt the Dragon's Teeth, a traverse of the north-south oriented Douglas Range.

This walk, although not a maintained Department of Conservation (DOC) track, is becoming popular and an unofficial rough track has developed along part of it. During the night groups from Christchurch and Wellington arrived to share the hut with us, many camping outside. Nearby Trilobite Rock (a limestone outcrop) is the site of New Zealand's oldest fossils, while the Cambrian rocks of the range are among New Zealand's oldest.

To keep our options open, we hired two cars (although minibuses can be hired to get to the park); one was left at Trilobite Hut, and after a three-hour shuffle, the other was



Judy Kelly looking over Cobb Lake. Photo Dave Kelly

parked near the Anatoki River at the eastern edge of the park.

This was easier than putting it at the Boulder Lake trackhead in the north of the park, which would have required an all-day shuffle. It also meant that we didn't have to reach Boulder Lake if we were not able to, or the weather was bad (rainfall is over 4m).

Next day, we walked up the Cobb Valley (a typical U-shaped glacial valley) to Fenella Hut, built in memory of a climber killed when a hut was destroyed near Mt Cook. This pleasant hut would make a good base, and in fact did for many of the group from Christchurch, since tracks run in various directions from it.

Some of us walked up to the nearby pass where a rock pool is reminiscent of small Tasmanian tarns, and then to Cobb

Lake, which marks the source of the Cobb Valley, passing *Dracophyllum* (Neinei) trees resembling Tasmania's Pandani. The others in our party, who had been involved in the car shuffle, were two hours behind us.

After a crowded night at Fenella Hut (some sleeping under eaves), we and some of the Christchurch group set out up onto the Douglas Range for possibly the longest day of our walk to Lonely Lake.

This involved crossing below the highest point, Kakapo Peak (1783m), then negotiating various rocky hills and saddles with sub-alpine forest and alpine grassland, on a rough track, until a steep forested slope led down to a grassy bench near Lonely Lake, with cirque-wall behind. A three-man aluminium shed would suit the desperate, but grass nearby gave good fine-weather camping, while one could camp under the *Dracophyllum* trees in bad weather (a bit damp).

From Lonely Lake, most of the Christchurch party returned to Fenella Hut, while four of them and we climbed the slope behind Lonely Lake in mist onto the Drunken Sailors Ridge, from which we descended steeply (without track from here on) in tangled and slippery lichen-clad beech forest to a lovely forested flat (the only one) on the

Anatoki River, arriving about midday.

Sawtooth peaks

This descent was to avoid the sawtooth peaks of the Dragon's Teeth and Anatoki Peak, which are for serious climbers only. However, we didn't avoid a European wasps' nest, which someone disturbed, to our regret, because people were variously stung. From here the four Christchurch people left us, choosing to make a



Fenella Pool
Photo Dave Kelly

Kahurangi National Park 2007 *continued*

long day of it, heading up towards the source of the Anatoki and then up a spur to Adelaide Tarn. For us the Anatoki Flat was too tempting, so we camped beside the river and enjoyed a rest, deciding that two easy days are better than one long one.

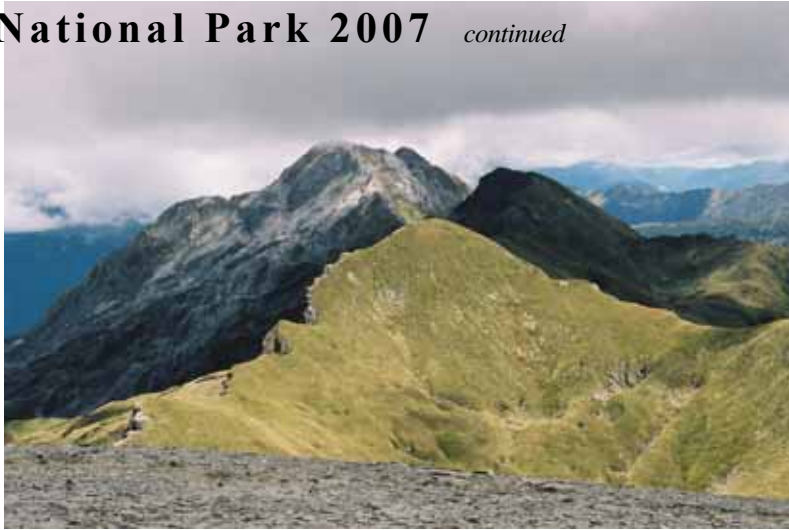
Next morning, we followed the increasingly narrow and rocky Anatoki River upstream until bluffs rose straight up from the true right bank below Mt Douglas. This was the sign to leave the river and head straight up through scrub on the true left bank until we came to the alpine plateau near Adelaide Tarn. This gave a spectacular view of the sawtooth ridge we had avoided (familiar to *The Lord of the Rings* film fans), before we headed down into the alpine grassy basin to the tarn.

Although spectacular, this is only a fine-weather campsite, since there is no shelter, there is very little flat ground, the hut is another small three-man one like Lonely Lake (for the desperate), and there is no suitable site for a toilet. The Christchurch people had obviously given up their plan for a rest day there because of the poor campsite.

The route to Boulder Lake looked quite a challenge in the sunset from the Needle (especially considering that we had to get back down to the Anatoki afterwards to get to our cars), so next day we headed east along Yuletide Ridge to the Anatoki River. However, even this was no mean feat, since the ridge was very rocky and scrubby, although the final descent to the Anatoki River is on a marked track.

Fortunately, our leader, Craig, had asked about the route at the Motueka DOC office and had been given a copy of a sketch map showing a route from Adelaide Tarn below the Needle and up a very steep scree slope onto the ridge, which we followed for a long day before arriving at the river crossing. It would be very frustrating for anyone arriving in rain, to find the river uncrossable and the hut (old but serviceable) inaccessible on the other side.

On our final day, we followed a well-graded and benched track all day along the side of the Anatoki River through beech, podocarp and tree-ferns until it crossed a saddle before dropping to the



Mount Owen viewed from Mount Arthur. Photo Dave Kelly

trackhead where our car waited. This track had obviously been built decades before for logging or mining and not maintained since, because it was overgrown and had been washed away at every creek crossing, forcing us to make an awkward descent and ascent to cross the creek.

Mt Arthur and Tableland

After a two-day rest in Takaka, with a visit to Cape Farewell, we (reduced to a party of five) arrived at the Flora carpark to walk across the Arthur Tableland (south of Cobb Valley), and hopefully to climb Mt Arthur. This trackhead has the advantage of being close to plateau level, so little climbing is necessary at the beginning of the trip, although the road up to it is very steep and narrow (but OK for 2WD).

We walked on the old goldmining track in beech forest beside Flora Creek and then on to the alpine and grassy Arthur Tableland. The Gridiron and Growler shelters are an interesting feature left by the miners: these are caves the miners camped in, in which DOC has now installed bunks and walls to make something in between a cave and a hut.

The centrally located and well-equipped Salisbury Lodge is the most popular destination, but, making good time, we continued on to the smaller Balloon Hut (near old gold mine workings), which is older but renovated. From this base, we walked up the gently rising snow grass plateau to Lake Peel, unfortunately in mist, then returning to the hut since there were no views.

After two nights at Balloon Hut, we backtracked to Salisbury Lodge, so that we would be in a position to make a dash for the summit of Mt Arthur should the weather clear. This hut is at the edge of sinkhole country, and the tracks through the forest nearby are slippery with deep,

sticky limestone mud, while the sinkholes are surrounded by lush grass. This lodge is very big, with room for about 24 people, has gas space heating and a cooking stove, and also a composting toilet with solar photovoltaic power and hot water.

The wait for good weather gave us time to observe the alpine flora. There were *Hebe*, *Walthenbergia*, *Gaultheria*, *Euphrasia*, *Spaniard* (*Aciphylla*)*, *Dracophyllum**, *Olearia**, *Celmisia*, *Donatia* and *Ranunculus*, all having relatives in the Australian Alps (though some * might not be obvious), and the uniquely New Zealand native edelweiss and *Raoulia*. The sub-alpine forest also had a variety of lichens, both on rocks and tree trunks, and mosses.

Steep ascent

Then, after two nights there, a clear day finally dawned, so we headed steeply up through the muddy forest and then out into the open grassy Gordon's Pyramid, then down across a fractured rocky marble valley (with some sinkholes) and up to the rocky marble Mt Arthur (1795m), which was extremely windy but at least clear, and gave a view as far as Mt Owen (1875m) to the south, the highest in the park and also of marble. It was a long day from Salisbury Lodge and back (both horizontally and vertically), and a shorter trip to Mt Arthur is possible by staying at Arthur Hut.

Keen to make use of our new-found luck, we remained based at Salisbury Lodge but backtracked the next day in full sunshine past Balloon Hut to Mt Peel (1654m) which gave views of the Cobb Valley and the wilderness to the west, and also had very big clumps of *Raoulia* cushion plants on its rocky tops. We made a circuit around Lake Peel, returning to Salisbury Lodge.

On our last day, we walked back to the Flora trackhead, noticing the traps installed by a local landcare group (Friends of Flora) to catch stoats, rats, mice and possums. They hope to reintroduce the Great Spotted Kiwi some day when the ferals are under control. This is one of many projects to reintroduce native birds to selected areas with feral control (originally islands but now many mainland areas).

Dave Kelly

Looking at southern Chile

It is very satisfying to be travelling in the southern hemisphere of our world; at night the sky is very familiar. We flew for 15 hours over the Pacific Ocean, and later paddled in it as it washed the coastline of Chile. There were 14 people in our environmental tour group, most of them from Canberra, and the trip was made last November. It was organised by a Canberra-based travel agency, and led by the Canberra naturalist, author and broadcaster, Ian Fraser.



*The edge of the Grey Glacier on Lake Grey, November 2007
Photo Fiona MacDonald Brand*

From Santiago, the capital, at latitude 33°, the group travelled in Chile for 18 days to as far as latitude 53°, which is 1100km south of Hobart's latitude. Using flights, ferries and small buses to cover the distance, we had five locations to explore. We stayed in bed and breakfast houses belonging to friendly families of Native Americans (the Araucanians) who intermarried with the early Spanish settlers.

Our lunches were packed in their kitchens and at night we ate in excellent restaurants. Much seafood – shellfish, oysters, salmon – is eaten with beautiful varieties of potatoes and really fresh salads and fruit. The weather throughout was not as cold and wet as expected; we usually had to wear coats but only occasionally needing gloves and woolly hats or rainproof gear.

Lakes and volcanic peaks

Location one was 1000km south of the capital to Puerto Montt and Puerto Varas. Two days were spent on the shore of Lake Llanquihue with Osorno Volcano in the background; a walk to see the rapids and falls of Saltos de Petrohue; a visit to Alerce Andino National Park which contains the Patagonian Cypress *Fitzroya* named for the captain of Darwin's ship, the *Beagle*; Lago Todos los Santos and the volcanic peaks and the beautiful forests with ferns and mosses carpeting the forest floor and dripping from the tree trunks. As we moved from place to place we stopped to view birds. The rufous breasted chuco tapaculo being outstanding, and also hearing the sound of woodpeckers.

Island visit

The second location was the large island of Chiloé, a short ferry ride from Puerto Montt. Over three days we visited, by small boat, a breeding colony of

Magellanic and Humboldt penguins, then red legged cormorants, kelp gulls, kelp geese and flightless steamer ducks. Two sea otters swam near us – just delightful. Another boat trip was on the Chepu River and Lake. This valley “dropped” in the 1960s earthquake and the sea came in, drowning people and killing all the trees.

We bused to the island's main town of Castro and visited the markets selling sea food, vegetables, baskets and bird decorations made from sedge and cane. We viewed smaller towns on the coast and all the houses, schools and churches on the island are made of wood with wooden shingles decorating the outside. The island's industries involve dairy farms, fishing and seaweed collecting. On the farms and on the beaches oxen are used to pull the carts and drays. At a regenerating forest site we watched a red headed Magellanic woodpecker furiously attacking a dead tree.

An overnight and morning ferry trip took us to our third location, on the Gulf of Corcovada. With the string of islands on the Pacific side and the Andes mountains on the inland side, the scenery was spectacular. Rafts of shearwater birds rested in thousands on the calm waters. We landed in Puerto Chacabuco, and a bus ride through hills, following the Fitzroy River, brought us to Coyhaique where we stayed for three nights.

Our daily drives took us through the open grasslands of the steppes where ponds provided food for flamingos, with upland geese feeding and nesting nearby. Sheep and cattle stations abound with familiar

shearing sheds and yards. One protected area was covered by remnant Antarctic beech forest. We walked for an hour under the beautiful soft green leaves which colour in the autumn. Much of this area of Chile was covered in forest but was cleared in the 1940s and burnt over a period of four years. A familiar story for Australians!

Another drive was across the windy steppes to a valley floor surrounded by snow-covered mountains. We visited a small museum/library in a small town which is cut off by snow in the winter. The museum had

a display of stone tools of the Native Chileans and yokes for the oxen used on the farms. We drove on to the Argentinean border – just a fence and gate on the lonely steppes.

Megafauna bones

The fourth area was Puerto Natales on the Last Hope Sound where the flocks of black-necked swans feed on the seagrass. We visited the Milodon Cave where Native Americans lived for 11 000 years and bones of the ancient megafauna sloth were found in the 19th century. We drove slowly through graceful guanaco herds feeding each side of the road to the Torres del Paine National Park. We stayed on a farm near this most dramatically beautiful park. It has jagged peaks, glaciers, large lakes and fast

(continued next page)



Kosciuszko feral horse management plan

In November 2007 the NSW National Parks and Wildlife Service (NPWS) released its Draft *Kosciuszko National Park Horse Management Plan*, and invited submissions from interested parties. Basically, the draft recognises that the feral horse population in KNP is rising, and with it the associated level of environmental damage in the form of stream bank damage, siltation and track erosion. It also recognises that grazing and trampling near wetlands and bogs is impacting on habitat for some threatened species such as the corroboree frog and the broad-toothed rat.

The draft recommends that the main control method should be trapping and relocating horses from the park, with the horses becoming the property of contractors once they leave the park. In NSW there is a moratorium on the aerial shooting of horses and this method will not be used. There are some areas where NPWS will be aiming to remove all of the horses, such as the sensitive alpine areas, and limestone catchments, for example at Yarrangobilly and Blue Waterholes. It is also intended that, in the interest of motorist safety, horse removal will take place along some major access roads within the park.

Conservation interests in the development of the draft plan and its subsequent development have been vigorously championed by our sister association the NPA of NSW, who have had to counter a very aggressive and public media campaign mounted by interests who would like to see commercial and recreational horse activities in the park protected, or even

expanded. Locally, this contest has been highlighted by Di Thompson daring to take on Peter Cochran live on radio. Good on you Di!

NPA submission

NPA ACT decided to also make a submission on the draft plan because the management of ferals in KNP has potential to impact directly on our Namadgi National Park, which shares a long unfenced border, and which we believe to be free of feral horses (touch wood). Some of the main points raised in our submission are:

- The nominated “horse-free” priority areas in northern KNP should be merged so as to provide a comprehensive arc of control taking in Kiandra and the Tantangara Dam areas as well as Yarrangobilly and Blue Waterholes. This would make efforts to control feral horses in the northern area more consistent, isolate mobs from each other and prevent horses from reaching Namadgi (including via Bimberi Nature Reserve).
- The plan should also incorporate an objective to remove wherever possible feral horses from other areas of KNP. Unless this is done the “horse-free” priority areas will always be attractive targets for continuing invasions by mobs from the surrounding areas, leading to high ongoing control costs in the priority areas.
- NPA ACT recognises that human introduction of feral animals requires direct human intervention to remove the pest. Shooting as recommended by the RSPCA can be the most humane

and effective method of removing horses, and NPA supports re-examination of that method should the current moratorium on aerial shooting be lifted.

- It is sensible that NPWS relinquishes responsibility for captured horses but there needs to be a very clear understanding that this is not a commercial exercise and has a limited application. There is a danger that it could be seen as a source of cheap horses for sale and lead to pressure to continue stocking horses in the park for sale. It must not set a precedent for “harvesting” or exploiting park resources, even feral animals.
- Removing horses from the park is an essential step in assisting species to survive the climatic changes which we already see occurring, including drought, disrupted patterns of snowfall and increased fire risk. As importantly, KNP is a recognised natural corridor which provides large-scale linkages between areas of known high value habitat at a national and international level.

Bearing these points in mind, NPA ACT considered that on the whole the draft plan was a well considered strategy which balanced competing opinions. It is to be hoped that, during the life of this strategy, public opposition to feral horse removal will progress towards a more realistic understanding of the inherent dangers they present to the park and in time a comprehensive management plan can be developed to further reduce their presence and their destructive impact.

Max Lawrence

Looking at southern Chile *(continued)*

flowing cascades. An afternoon trip on Lake Grey brought us to the foot of Grey Glacier with icebergs from the glacier floating around us. White orchids grow in the forest near the lower Lake Grey – all so beautiful.

Our exploration of southern Chile ended at the Strait of Magellan. It was calm weather for our boat ride to Isla de Magdallena to view a colony of Magellanic penguins and seals on the rocky small island nearby. Later we drove for some distance along the strait viewing the humps of Tierra del Fuego across the water – tantalising, but a visit was not included. We stayed in the lovely old town of Punta Arenas which has beautiful 19th century public buildings and hotels and was the port

that Ernest Shackleton was brought to after his ship wreck and horrific journey to find help for his crew (1903). More recent visitors, in November 2007, were the passengers from the cruise ship which sank after hitting an iceberg!

We commenced our journey home with the feeling that Chile deserves longer stays. You need time to absorb its beauty and enjoy the friendly people; time to

observe its flora and fauna and gaze at its overwhelming landscapes.

Fiona MacDonald Brand



Torres del Paine National Park.
Photo Fiona Macdonald Brand

A quick look at Mount Orroral

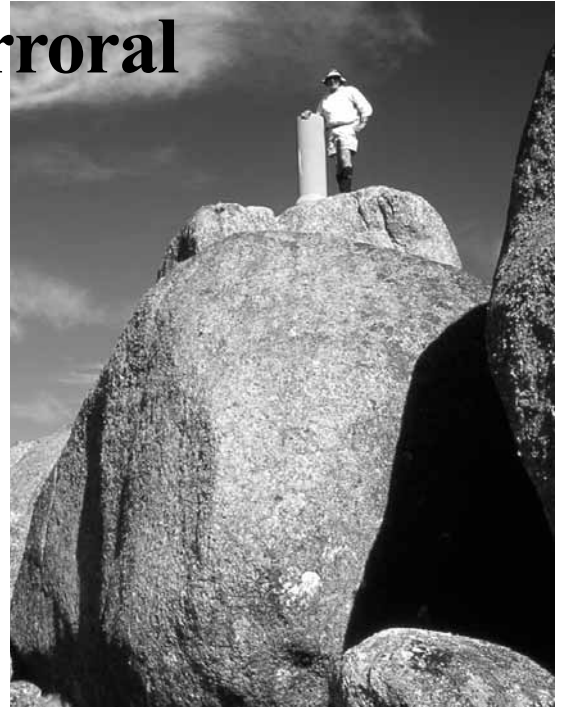
In July 2007 we thought we'd creep up on Mt Orroral from the south west. Horror stories abound about regrowth and boulders, so it was with some trepidation that I took a group via the unknown (to me) south west. Alas, we were pleasantly surprised by the relatively open country and the gradual nature of the climb (most of the elevation having been gained on track to the saddle above Rendezvous Creek).

We crossed the three eastern peaks of Orroral's set of six and were glad to see substantial alpine ash regeneration and a number of large pools of water. Only on approach to the Orroral trig did the group lose its integrity when the only tangle of trees and rocks on the trip tended to promote a sense of self preservation.

The south western approach involved much less agony than my previous approach routes, and I will likely revisit from this direction again.

Martin Chalk

*Mike Smith atop Mt Orroral.
Photo Martin Chalk*



Some impressions of the WA outback

On our "grey nomad" expedition last spring Marie, myself and Winnie the caravan roamed fairly widely through outback Western Australia taking in the Kimberley, the Pilbara and the Goldfields. Much of the Pilbara and Goldfields country I had previously visited nearly 40 years ago during the course of an economic survey of sheep stations.

My overwhelming memory of that trip was the extent to which overgrazing had degraded the natural vegetation and the consequent carrying capacity of the stations – a view recognised by the then current generation of property managers.

I also remembered the same people telling many a story about the hordes of prospectors scouring their country for minerals. One guy in particular claimed that at the end of a muster his tally was 15 000 sheep and 10 prospectors. Mind you the same guy would tell you his father had run 45 000 (sheep, that is) before the War on the same property. National parks in the region were largely unheard of.

On this trip it was a very different story, not always for the better. The sheep industry has virtually disappeared from the northern area to be replaced by cattle, and in some instances by fat-tailed sheep. The latter are bred for the live sheep trade, require a much lower standard of management, and do not require shearing! So much for the golden fleece. In other areas sheep have been largely displaced by goats, usually of the

feral variety in plague proportions, and sometimes harvested commercially.

The minerals industry has virtually exploded. If it's not iron ore it's gold or nickel or diamonds. WA is a huge State with vast distances to be traveled, but it seems the mining industries are just about everywhere. The signs are overburden mountains, railways, road trains, highways, processing plants, airstrips, etc.

Karijini National Park

The good news from an environmental viewpoint is that there are now a number of wonderful national parks and reserves. Karijini National Park is a notable example. Set in the heart of the Hamersley Range it includes in its northern section the wonderful and spectacular gorges for which it is famous. Its southern section includes Mt Meharry (1249m) and Mt Bruce (1235m), the two highest mountains in the State. Marie and I decided Mt Bruce was a challenge we couldn't resist, so we climbed it.

As we toiled our way upwards we got more expansive views of the neighbouring Marandoo iron mine and its attendant railway with its 2- and 3-km trains. As we rested on top we became aware of a noise, which we eventually identified as a siren coming from the direction of the mine.

We'd just worked out that it was probably a blast warning when that theory was proven by a huge eruption of

dust with surprisingly little or no sound. These eruptions went on for the best part of an hour over different parts of the mine site, and when they stopped we hoped it wasn't a sign they were about to start on the national park.

The proximity of the mining industry (and its legacy) is also evident in the gorges of northern Karijini. The gorges most frequently visited, for example Hancock, Weano and Joffre Gorges, feed into the beautiful and expansive Wittenoom Gorge, which eventually feeds into the Fortescue River on the odd occasion when sufficient rain falls.

Wittenoom Gorge (not in the park) is truly beautiful, but it is also the site of the infamous and long-closed Wittenoom asbestos mine. The town is now gone, along with the two-storey pub I once stayed in, to be replaced by signage with dire warnings on the consequences of inhaling the horrible stuff which apparently is still about. Nevertheless when we did drive up the gorge (with windows up and air conditioning on) we did find a number of hardy (foolhardy?) souls camped up there in settings that could only be otherwise described as idyllic.

Now with the impacts of global warming to add on top of the impacts of grazing, ferals, and mining, the importance of national parks and reserves is becoming more and more obvious, especially in the fragile WA outback environment.

Max Lawrence

Fire in the high country: its ecological impacts

The following is an edited extract from an article by Professor Mark Adams, University of New South Wales.

In 2002 a series of study sites were established in the Marm Point/Hollands Knob area of the Bogong High Plains to test hypotheses related to the distribution of plant communities (e.g. grassland, shrubland, woodland). In particular we were interested in the likely effects of changes in temperature and water availability on soil and plant processes that underpin the sustainability of ecosystems.

Soil processes include respiration (release of CO₂), methane oxidation (trapping of methane from the atmosphere), and nitrogen (N) mineralization (production of inorganic N for plant uptake). Plant processes of interest were nitrogen uptake and the many processes that comprise nitrogen cycling (e.g. internal translocation of N, litter fall, litter decomposition).

No sooner had we established our sites and begun our research than the 2003 fires came along and transformed our study into “the effects of fires on ...”!

Before and after the fires

Whilst the fires totally changed many aspects of our study, we still had our samples and data collected before the fires. Scientifically, we had a tremendous opportunity. “Before and After” studies are among the most powerful of all scientific approaches in ecology owing to the direct comparability of samples. Elsewhere in the world, “before and after” studies (e.g. the Mt St Helens eruption in the USA) have helped overturn decades of ecological dogma such as theories of succession.

As far as we are aware, there has been no other such “before and after” study of the effects of a major bushfire on soils and nutrient cycling. There are lots of studies of the effects of cool fires that can be set deliberately, but hot fires like those that raced across the high country in 2003 are obviously difficult to plan research around!

What did we find? First, and perhaps most surprising, soil nutrient availability improved substantially in all cases, and there was no loss of nutrients from the soils. We found no “damage” to any of the soils in any of the communities studied. Instead, additions of ash produced by combustion of the vegetation substantially enhanced the pools of nutrients already present in the soil. Irrespective of community type – including the grasslands at the bottom of

the valley and the Snow Gum woodlands on the tops of the hills – the fire enhanced nutrient conditions for plant growth.

This finding was borne out by studies using stable isotopes of nitrogen. These naturally occurring isotopes ¹⁴N and ¹⁵N (that are in the soil, the atmosphere and all plants and animals) are increasingly used by scientists as markers of ecological processes.

It has been shown repeatedly that the lighter isotopes tend to react more quickly. Hence if processes or reactions are not absolutely complete – or if organisms can regulate processes – we find that the products of the reaction or biological process are often enriched in lighter isotopes owing to discrimination against the heavier isotope.

In this case, we found that the fire enriched the ash and surface soils in the ¹⁵N isotope. This had been brought about by preferential volatilisation and loss to the atmosphere of the lighter ¹⁴N isotope, leaving the ¹⁵N isotope behind. Consequently, we found that the regrowing plants were greatly enriched in the ¹⁵N isotope as well, confirming their use of the N added to the soil in the ash from the pre-fire vegetation and litter.

Greenhouse gases

We also examined emissions of a range of greenhouse gases. One of the most interesting results is that the alpine soils are strong oxidizers of methane – that is, they remove methane from the atmosphere, rather than emit it. The alpine soils on the Bogong High Plains oxidize methane at rates as fast as or faster than any other soil anywhere in the world. This attribute was matched by negligible emissions of N₂O – a result we expected given the known negligible role of nitrification in these soils and the dominance of ammonium in both the soils and in alpine plant nutrition.

All of these processes are highly temperature- and moisture-sensitive and thus equally sensitive to changes in climate. Emissions of CO₂ in the 2003 fires were huge, as they were in 2006-07. Such emissions are of obvious concern when we consider that they are on the same scale as the proposed Kyoto savings.

Our current research, sponsored by the Bushfire CRC (Cooperative Research Centre), has us expanding to sites elsewhere in the high country with an increased focus on the montane forest and subalpine woodlands. We are now

trying to piece together the water and carbon balance puzzle for the high country. We have several aims.

Fuel loads and moisture content

First, we are trying to replace the decades-old approach to fuel load assessment with a modern process-based approach. The old approach assumes that fuel loads increase regularly or at least predictably with time and can thus be simulated with simple mathematical functions. Unfortunately, we know that significant additions of fresh, very dry fuel in drought conditions increase fire risk well beyond what can be reliably predicted using such functions, and that we need to understand better the processes that determine the production of litter and its moisture condition.

This leads to our second objective. We have established a series of reference sites (in both mature and regenerating forests) where we measure the full water balance and are thus able to develop predictive, process-based models of the moisture content and condition of the vegetation and litter layer. This is critical to fire risk assessment.

These sites will also allow us to assess accurately the changes in water yield from the high country that result from fire and from climate change.

Finally, we have not forgotten our work on greenhouse gases. We have a new automated system that can measure nine chambers simultaneously for the release of CO₂ and N₂O and oxidation of methane. These will be deployed throughout the high country in coming years.

Conclusion

Fires in 2003 had little impact on many of the key ecological processes, and raise the obvious suggestion that we need not be afraid of fire from an ecological viewpoint. On the other hand, fires have concerning impacts on water yield and carbon emissions. The balance between “managing impacts” and “allowing natural impacts” should concern us all.

So if you are out walking or skiing and come across strange-looking machines, please don't report them as alien intruders. They are there to measure the impact of climate change on the carbon and water cycles of the high country, and, incidentally, to improve our ability to predict fuel loads and condition and help underpin land management decisions.

VNPA, Parkwatch, September 2007

PARKWATCH

Dingoes control ferals

On a recent ABC Science Show Professor Chris Johnson of James Cook University, Townsville, was interviewed by presenter Robyn Williams about his considered view that dingoes should be allowed to roam in the wild.

Williams outlined how Johnson describes three waves of extinction in his book *Australia's Mammal Extinction — A 50,000 Year History*. First the Megafauna became extinct about 45 000 years ago. The thylacine and the Tasmanian devil became extinct on the mainland a few thousand years ago and this is often thought to be due to the arrival of the dingo as new top predator about 4000 years ago. Johnson thinks it may have had more to do with increased hunting and competition for prey.

The last wave was in the last century and a half and caused the extinction of the smaller ground-dwelling marsupials, larger rodents and many bird species, although there was no great change in their habitats. It was due to two imported species, foxes and feral cats, becoming the top predators in the bush. These two animals exist in other parts of the world and have not caused the extinction of equivalent small animals there; so why in Australia?

Johnson finds that it is because there is no larger predator to limit the population of foxes and cats. He cites what happened in Sweden when the Lynx was hunted almost to extinction. This caused an explosion in the fox population and a dramatic reduction in their prey. Since the hunting of Lynx ceased about ten years ago, the fox population has decreased by about 10% per year and the small animals have recovered.

Johnson observed a similar effect on a beef-cattle station in northern NSW where the owners did not try to control the dingoes. There were no foxes on the property because they were hunted and killed by the local dingoes. He observed this also in other areas of Australia where there is a stable dingo population and found that there is less extinction of species in such areas.

There are some dramatic illustrations of this. One of the last mammal species to become extinct on mainland Australia was the Mala, or Rufus Hare Wallaby, which we lost in about 1990. It is still being bred in captivity and there are populations on islands off the West Australian coast, but on the mainland it is extinct in the wild.

In the mid 1980s there was one population of Malas left in the Tanami Desert and they lived in an area that had lots of dingoes. Dingoes occasionally preyed on them and it seemed like a good idea to poison the dingoes to help boost the Mala population, so that was done. But within a couple of weeks of poisoning the dingoes, foxes invaded the area, cats invaded the area, and before too long all of the Mala had been killed.

There was a person doing a PhD study on the Mala, so he could see exactly what happened. Fox tracks would appear in one part of his study area and very quickly the Mala tracks would disappear. Then the fox tracks would move on to another part of the study area and the Mala tracks would disappear there. It could have been just a few individual foxes moving through the colony that eventually killed the whole lot of them, but that hadn't happened until the dingoes had been removed. This suggests that we can use the Dingo as a kind of biological control of foxes and cats, and that this can actually work to prevent extinction.

Some in the cattle industry recognise this possibility and find that the occasional loss of a calf is outweighed by the gain from control of kangaroos and feral pigs by wild dingoes. When there are plenty of kangaroos and feral pigs, the dingoes prefer hunting those to attacking cattle.

*Colong Bulletin
November 2007*

Watching quolls

The spotted-tailed quoll, *Dasyurus maculatus*, is one of six species of quoll, four of which occur in Australia. It is the largest of the Australian quolls and mainland Australia's largest marsupial carnivore. As a top-order predator, it requires large patches of forest with suitable den sites and relatively high numbers of medium-sized mammals for food. With the loss and fragmentation of its habitat, the spotted-tailed quoll has declined in range and abundance, and is now listed as endangered by the Australian Government, as well as being considered threatened in every state in which it occurs.

Due to the cryptic nature of spotted-tailed quolls, very little is known about their distribution and abundance in Victoria. This is a major factor limiting the species' recovery program. ... This year, the Department of Environment and Water Resources Threatened Species

Program provided funding for DSE to survey the Otway Ranges in South West Victoria. This area is considered to support an "important population" the draft recovery plan and where quoll populations are suspected to have undergone a significant decline.

Remote camera surveys were conducted at 50 sites in the Otway Ranges between May and August, the optimal time to survey as it is the breeding and when spotted-tailed quolls are most active. ... The preliminary results are of major concern. Not a single spotted-tailed quoll was recorded in the 50 sites surveyed. Equally concerning is that feral cats were recorded at 80 per cent of sites. Jenny Nelson, Senior Scientist with the Arthur Rylah Institute for Environmental Research (DSE) said, "Our failure to detect quolls doesn't mean that they don't persist in the Otways, however it is likely that they exist only in extremely low densities."

While the results are of major concern and clearly demonstrate the need for urgent action to conserve spotted-tailed quolls in the Otways, there are some positives to come from the research. "The project has provided important information on the distribution and abundance of quolls within the Otways and on foxes and feral cats which are potential threats to quolls. This information is fundamental for developing appropriate management strategies and can be used in monitoring the impact of future feral predator control programs," Jenny said.

*The Web
Summer 2007*

NPWS head departs

At the end of October, Tony Fleming resigned as Deputy Director-General of DECC Parks and Wildlife Group (Head of NPWS). Tony was highly regarded by NPWS staff and actively promoted the importance of protected areas within the community and government and put in place a number of important systems to better manage the park system and biodiversity across the State. NPA particularly praised Tony's understanding of the non-government sector and his willingness to work with NPA. A recruitment process has begun to find a replacement. Tony takes up the challenging role of Operations Manager of Australian Wildlife Conservancy.

*NPA NSW
Dec 07–Jan 08*

Hot on top

The conjunction of a new and considerable threat (climate change), and the availability of a large and growing body of knowledge, makes the Bogong High Plains an ideal place to develop a model for management of climate impacts in natural areas.

Climate change will place great stresses on alpine ecosystems, as indigenous species cannot migrate higher to a more favourable climate, yet a range of highly competitive native and pest species can migrate from lower slopes to the high plains.

Many new issues have arisen since the park management plan was produced in 1992.

- The High Plains Road between Falls Creek and Omeo is set to be sealed. This would bring greatly increased visitor traffic to the area.
- A number of proposals aimed at increasing summer occupancy of the Falls Creek alpine resort are on the drawing board. The most immediately contentious is a planned combined walk/bike track along the southern shore of Rocky Valley Dam adjacent to the very sensitive Rocky Knobs region. It should be subject to a thorough environmental assessment.
- The removal of licensed cattle grazing in 2005 has been followed by a series of rehabilitation programs, particularly for mossbeds.
- Recovery from the extensive 2003 fire (followed in some places by the 2006–07 fire) is progressing very slowly.
- There are already several new highly invasive weeds, such as Orange Hawkweed and Grey Sallow Willow.

The High Plains not only play host to a number of threatened plant communities listed under Victoria's Flora and Fauna Guarantee Act, such as mossbeds, fens and snowpatch communities; they also harbour many threatened species of flora and fauna.

The imperilled Mountain Pygmy Possum, for example, lives among granite boulders and Mountain Plum-

pine thickets, but with earlier snowmelt the possums will come out of torpor before the arrival of Bogong Moths, their post-winter food supply.

To help management, however, we already have a great number of research programs in place, such as:

- a growing database from a series of long-term (some at 60+ years) monitoring programs, a vast increase in knowledge of non-vascular plants (mosses etc) and aquatic invertebrates, extensive research into rehabilitation techniques
- new information generated by post-2003 research on fire-impacts on, and recovery of, alpine species and communities
- a growing number of climate change research projects, including the Bogong High Plains component of the International Tundra Experiment (ITEX)

A rewritten Bogong High Plains component of the Alpine NP's management plan will allow tourism operators, park visitors and Parks Victoria to operate in an atmosphere of certainty, allowing the park to make a valuable contribution to nature-based tourism, while also allowing it to be managed, as the National Parks Act makes clear, primarily for the protection of its remarkable natural environment.

Setting up the Bogong High Plains as the site of a pilot program for the management of climate-sensitive ecological systems is a unique opportunity for Victoria to set the agenda for management of natural areas in the face of climate change.

*VNPA, Parkwatch
December 2007*

Willows on the march

Willows of one sort or another are native to almost every continent except Australia.

There are about 300 species worldwide, and most of them have a remarkable propensity to propagate from seed or broken bits of root or stem.

One of these willows, Grey Sallow

Willow or *Salix cinerea*, is a native of the British Isles, Europe and western Asia. It has turned up in wetlands throughout much of Victoria for some time, and some years ago it was identified as a possible invader of the Victorian high country. It had become well established in a number of creeks and streams on the edge of the alps.

When the fires of 2003 burnt the shrub and sphagnum moss layer from many alpine peat beds, they left an ideal peaty seedbed for Grey Sallow Willow to occupy. The resulting post-fire invasion of tens of thousands of Grey Sallow Willows in Victoria's Alpine National Park has tested our capacity for weed threat assessment, effective monitoring and rapid response capabilities.

And it's not just the quantity of seedlings that is a concern. We are faced with a shrubby tree invading areas that have until now been largely treeless. Once the invasion was identified, Government post-fire funding, bolstered by funds from the North-east Catchment Management Authority, enabled Parks Victoria to sign up teams of volunteers and hire a range of contractors to pull the young seedlings, or poison more advanced shrubs. It is a big program, and has met with some success. but the identification last year of additional tens of thousands of seedlings in the Fainter's area of the alps has made it clear this threat will not be over soon.

*VNPA, Parkwatch
September 2007*

Compiled by Hazel Rath

NPA notices and information

National Parks Association Calendar				
	Mar	Apr	May	Jun
<i>Public Holidays</i>	<i>Mon 10, Fri 31, Mon 24</i>			<i>Mon 9</i>
General Meetings	Thur 20	Thur 17	Thur 15	Thur 19
Committee meetings	Tues 4	Tues 1	Tues 6	Tues 3
NPA symposium			Fri 9, Sat 10	
Gudgenby Bush Regeneration ¹	Sat 8	Sat 12	Sat 3 ²	Sat 14
Further details: ¹ Yankee Hat carpark 10:00am, contact Clive Hurlstone 6288 7592 (h) 0407 783 422 (mob)				
² Note that the May GBRG work party is a week earlier than usual, to enable people to attend the NPA symposium.				

General Meetings

**Third Thursday of the month
(not December or January)**

8:00pm

**Uniting Church hall
56 Scrivener Street
O'Connor**

Call for nominations

Life membership of NPA ACT

The NPA ACT Constitution, Section 5 (1) Honorary Life Membership, states:

any person who has rendered meritorious service to or on behalf of the Association may, on the recommendation of the Committee, be elected a Life Member by a General Meeting, and for all purposes shall be considered a financial member of the Association.

Please send nominations with supporting documentation to the Chair of the NPA ACT Life Membership working group:
Kevin McCue 36 Jalanga Crescent ph: 6251 1291
ARANDA ACT 2614.

Selection criteria guidelines may be obtained from the Chair of the working group.
Nominations for 2008 close at the April general meeting.

Symposium Registration Form

Title

Given name/s

Surname/s

Organisation

Address

Postcode Phone

Email

I wish to attend (please mark X in box)

Friday pm (includes book launch)	\$22	<input checked="" type="checkbox"/>
Saturday (includes lunch)	\$33	<input checked="" type="checkbox"/>
Both days	\$49.50	<input checked="" type="checkbox"/>
Friday dinner <i>(prices include GST)</i>	\$44	<input checked="" type="checkbox"/>

I enclose a cheque payable to National Parks Association of the ACT Inc for \$.....

or

Please charge my Mastercard / Visa / Bankcard (circle one)
\$.....

Card number _____

Expiry date ____/____

Card holder's name _____

Please copy or cut out this form and send to the NPA ACT office
by 15 April

New members

The NPA ACT welcomes the following new members:

Debbie Cameron
Karen Peedo.

Gudgenby Bush Regeneration Group

Date change to note

The May work party for the GBRG has been moved forward a week, to
3 May
so as not to clash with the NPA's symposium.



The NPA ACT website is hosted by our generous sponsor, Encode.

Front cover photographs

Main photo. *NPA walkers near the summit of Mount Gudgenby on a walk led by Neville Esau, 2 December 2007. Photo Max Lawrence*

Insets. *Orchids: The large duck orchid; a spotted sun orchid; a tiger orchid. Photos Esther Gallant*

General Meetings

Thursday 20 March

Elephants, elephants, elephants.

Esther Gallant: NPA member, and popular speaker at our meetings with her interesting adventures.

Both Zimbabwe and Botswana estimate populations of 35000 elephants. In three weeks we saw hundreds, along with 38 other mammal species and 100 kinds of birds. We had time to watch animal behavior and to discuss it with our knowledgeable local guides. We also visited rural villages and spectacular Victoria Falls.

Thursday 17 April

Success with an endangered species: the timely expansion of a Macquarie perch population.

Brendan Ebner: Senior Aquatic Ecologist, Parks, Conservation and Lands, Department of Territory and Municipal Services.

In 2001 a rockramp fishway was constructed at Vanitys Crossing on the Cotter River to increase the spawning and nursery grounds of a remnant population of the nationally endangered Macquarie perch. Since then a mixture of innovative monitoring and targeted research has revealed that the habitat requirements of the population are specific to each life history stage and that adults have moved upstream through the fishway to spawn. This success is discussed against a back-drop of environmental flows, bushfire and proposed expansion of the water supply for Canberra.

Thursday 15 May

The endemic flora and fauna of the Bale Mountains in Ethiopia and Mt Kenya.

Roger Farrow: Insect ecologist and member of NPA and the Alpine Garden Society (UK).

Roger and his partner Christine joined an expedition of the Alpine Garden Society to look at alpine plants and the ecology of the alpine zone in the Bale Mountains in Ethiopia and Mt Kenya in Kenya.

The Bale Mountains are the largest alpine area in Africa. They contain a range of endemic plants, notably the giant lobelias, and animals such as the Ethiopian wolf. The Park is mixed use and is under considerable pressure from grazing by domestic stock.

Mt Kenya on the other hand is one of the oldest parks in Africa and well protected but is being loved to death by walkers causing localised trail erosion so familiar in Australia.

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

<i>President</i>	Christine Goonrey 6231 8395 (h) cgoonrey@grapevine.com.au
<i>Vice-President</i>	Chris Emery 6249 7604 (h) chris.emery@optusnet.com.au
<i>Secretary</i>	Sonja Lenz 6251 1291 (h) sllenz@grapevine.com.au
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Conveners

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<i>Publications Sub-committee</i>	Sabine Friedrich 6249 7604 (h) sabine.canberra@gmail.com
<i>Bulletin Working Group</i>	Max Lawrence 6288 1370 (h) mlawrence@netspeed.com.au

The NPA ACT office is in the Conservation Council building, Childers Street, City. It is staffed by volunteers but not on a regular basis. Callers may leave phone or email messages at any time and they will be attended to. The post office mail box is cleared daily.

Phone: (02) 6229 3201 0412 071 382

Website: www.npaact.org.au

Email: admin@npaact.org.au

Address: GPO Box 544, Canberra ACT 2601

Subscription rates (1 July to 30 June)

Household membership	\$40	Single members	\$35
Corporate membership	\$30	<i>Bulletin</i> only	\$30
Concession	\$25		

Advertising

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

NPA Bulletin

Contributions of articles, letters, drawings and photographs are always welcome. Items accepted for publication may also be published on the NPA website. Send all items to The *Bulletin* Team, admin@npaact.org.au, or postal address above.

Deadline for June 2008 issue: 30 April 2008

This *Bulletin* was produced by the NPA *Bulletin* Working Group.

Printed by Instant Colour Press, Belconnen, ACT.

ISSN 0727-8837

Extreme weather events



2003 Canberra Firestorm



2003 Mt Stromlo



Early Canberra bushfire



Flood in Canberra

Threatened species



Little Eagle



Hooded Robin

NPA ACT Symposium

Corridors for Survival in a Changing World

Venue: Discovery Centre, CSIRO
Clunies Ross Street ACTON ACT 2601

9 May 2008	Friday afternoon	12:30 pm – 5pm	Presentations
		5.15 pm - 6.30 pm	Orchid book launch
		7:15 pm	Conference dinner
10 May 2008	Saturday	9am – 5pm	Presentations

This is the second symposium in a series which NPA ACT is promoting in the lead-up to our 50th anniversary in 2010, in order to promote public support for sound scientifically-based decisions in park management and resourcing.

The symposium will investigate the influence of climate change on the region and how we might mitigate its effects; how much change to expect; what species will be under threat; and how flora and fauna might adapt. We will discuss the need for wildlife corridors linking Namadgi National Park, the distributed nature reserves in the ACT and the Australian Alps National Park. Speakers will include researchers from government and universities (including research students), and ACT Parks, Conservation and Lands staff managing our nature parks and reserves.

The proceedings will be available on the day if you register before 15 April.

Associated events

Launch of the *Field Guide to Orchids of the ACT*: The NPA ACT's latest field guide, compiled by David Jones, will be launched with champagne and nibbles on Friday evening at close of session.

There will be a display of entries to the NPA ACT photo competition.

The conference dinner will be on Friday night at the Discovery Centre after a short tour of the Centre's display.

The winner of the Amanda Carey award will be announced on Saturday afternoon.

Register now!

Use the registration form at page 18 or download it from our website, and send your registration to the NPA ACT office.

Themes of the symposium

- Climate change – the human dimension
- Future weather variability
- Wildlife corridors
- Treasures of Namadgi National Park
- Managing bogs and wetlands
- Reducing the risk for threatened species
- Bushfire impact on vegetation

Registration

Registration fees are low to encourage community participation, and can be pre-paid or paid at the door. A copy of the Proceedings is included in the registration fee and will be available on the day if you register before 15 April. The registration form is on page 18 of this Bulletin or can be downloaded from the NPA ACT website and posted to our office.

Contacts

Convenor: Kevin McCue
email: kmccue@grapevine.com.au
phone: 02 6251 1291
NPA Office: GPO Box 544
Canberra ACT 2601
email: admin@npaact.org.au
phone: 02 6229 3201

Speakers

Invited speakers include: Prof Geoff Hope, Assoc Prof Janette Lindesay, Dr Phyl Zylstra, Graeme Worboys of IUCN, Dr Maxine Cooper, Commissioner for the Environment and Sustainability, as well as Brett McNamara and Sarah Sharp from ACT Parks, Conservation and Lands.

Please check our website for the program and further updates: <http://www.npaact.org.au/>

Photo acknowledgements:

Canberra firestorm 2003

Other fires and flood

Little Eagle

Hooded Robin

Max Lawrence

Emergency Management Australia

Stuart Harris

Liz Harman