

#40 2010
news from the

alps

 AUSTRALIAN ALPS
NATIONAL PARKS



SHARING AND LISTENING

When Traditional Owners from across the Australian Alps gathered for the first time in living memory at Dinner Plain in 2005, everyone knew that there would be another Gathering. And so it came to be, the Second First People's Gathering, this time at Jindabyne. The Australian Alps Program was sponsor, creating the opportunity for the Traditional Owners to re-form the relationships forged five years before between various nations; to carry out traditional business; and to continue to make their contribution to the protected area management of the Alps – caring for Country. It's a complicated, but at the same time wonderful business. What follows is a snapshot from several peoples' perspectives...

Blowering Dam, from the exhibition
'Discovering Country', photographed
by Rene Vogelzan, see pages 18-19.





WELCOME & FAREWELL

All good things must come to an end (Chaucer). And so it is that my tenure as Manager of the Australian Alps Program comes to an end with this edition of *news from the alps*.

Of course the good news is that the Alps Program doesn't come to an end. As many of the readers of the magazine would be aware, each of the ACT, NSW and Victorian parks agencies take turns hosting the Australian Alps national parks Program. It's all about sharing the responsibility and the co-operative management program remains one of the best models anywhere in the world. This can be largely attributed to the people that are involved in making it work. It has been my great pleasure and privilege to work alongside all the people I have come in contact with over the last three years both within and outside the park management agencies. You are people with a great passion and dedication to protecting the wonderful natural and cultural environment that is the Australian Alps. Please don't lose that passion and dedication. Thank you all.

The hat passes to Anthony Evans from NSW (see page 4 and the contact details below). I know Anthony will do a great job as Program Manager. I wish him well.

So it's "see you later" from me, not goodbye.

Rod Atkins program manager & editor

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For more information about the Alps, including information about the Parks, other publications and news, visit the Australian Alps Web Page:

www.australianalps.environment.gov.au
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Those who gathered for the First People's Gathering at Jindabyne.



Uncle Ernie Innes, a member of the Taungurung clan in central Victoria and Chair of the Victorian Alps Traditional Owner Reference Group, speaks of a Treaty. "The one major outcome of the second of the First People's Gathering, was a signed agreement by the Traditional Owners represented, to establish a Treaty to be known as the First Nations Bogong Treaty - a Treaty that is inclusive of all the First People of the Mountains and the Rivers of the Australian Alps. To begin the process of creating this Treaty, a working group is being formed made up of one male and one female from each of the three Australian Alps Traditional Owners Reference groups - New South Wales, Canberra, and the Victorian Alps Traditional Owners Reference Group. These representatives would share the vision for the benefit of all our people, producing a Treaty that would give equality to First Australians and restore to our people their dignity and self respect. We dare to dream that this Treaty would become inclusive of all First Australians, First Nation, Traditional Owner Custodians, across this nation, the Torres Straits and Tasmania. The journey has begun."

Doris Paton, (daughter of Rachel Mullet who is one of four Auntie Elders of the

Ngarigo-Monero Nation) can see the overwhelmingly positive potential of these Gatherings. She also sees the places where, in her view, adjustments could be made to produce profoundly positive results.

"It was good for people to get back together after five years. It's also good to see some of our Elders coming back to Country. This is the country our ancestors walked and I watched my mother take her shoes off in the freezing cold - and that is a powerful image."

Doris is fully aware of her responsibility to carry, maintain and in the fullness of time entrust the knowledge appropriately to those who continue to care for Country. "It's important to keep building the relationships, to help make the management decisions through a proper consultative process. The agency people are trying but perhaps they need to listen more."

The Traditional Owner way of doing things is different from that of the government agencies charged with managing the Alps. To bring these closer together, Doris makes some suggestions.

If a Traditional Owner organised the Gatherings the format would sit more comfortably. Prior to the planned Gathering, a summary of what was discussed

at the last one could be circulated along with an update of related activities to bring everyone up to date - a neat move which would reduce the need for formal presentations from agency staff and leave more time for discussion.

"The elders need time to reflect and process what's being said; to rest and not become anxious through being asked to make decisions on the spot. If a Traditional Owner organises the next Gathering, there would be a general plan with a list of specific things to talk about, and working with this we'd develop our own way to get an outcome. For us, it's not just the outcome that is important, but also the process."

Doris is quick to stress that while for some agency staff letting go of the control of a meeting like this is difficult. "They're opening the door, inch by inch. But there are some people who have learnt a lot from the process. They have built good relationships. They understand that the Gathering is about sharing, about talking to the people who come, and to listen to what can be done differently. By doing this they will get the Elders talking to them."

Says **Peter Jacobs** (Parks Victoria Chief Ranger, Alps, as well as Convenor of the Australian Alps Liaison Committee), "It's

a privilege and a pleasure to have the opportunity to support the Alps Traditional Owners to come together; to offer us all the opportunity to get together in a spirit of co-operation and goodwill."

This pairing of the Liaison Committee and the Traditional Owners who take part in these Gatherings is ideal. Free of the more formal and administrative culture which is part of the daily functioning of the agencies operating within the Australian Alps, the Committee instead provides the means for more relaxed discussion and negotiation. (It's not by chance that the term liaison appears as part of its name.) And in this spirit of relaxed discussion, Peter listened as a range of topics were passed around - the process being facilitated by Chrissy Grant, (of Torres Strait Islander descent, with a long history in Indigenous Affairs and currently working in the area of Indigenous Heritage and Land Management).

Says Peter, "Among them was the need to be able to access Country for ceremony and for traditional uses; to explore economic benefits for Traditional Owners through employment, training or fostering business potentially through agency access external grants; to recognise and respect intellectual property - contributions of knowledge given by Traditional Owners;

to look at the concept of an agreement drawn up between the nations and then between the nations and the agencies.

"These Gatherings are a means for park managers to listen to Traditional Owners and be influenced through their input. It's the Australian Alps Liaison Committee's objective to find the ways which bridge the gap between Traditional Owners' aspirations and hopes and what is achieved."

For **Deb Melaluca**, the Gathering was an inspiration and a motivation. "I now have a better picture of what's do-able, how taking small steps and building partnerships can make this possible." Deb's role with the ACT Government agency Parks Conservation and Lands is a Visitor Services and Liaison Officer. She is not of Aboriginal descent, but was fortunate to be able to study a Cert 3 in Conservation and Indigenous Land Management with the agency's Aboriginal trainees, which opened up a new world. She has since been a 'driven' advocate for the Aboriginal staff in her agency and their perspective on Country. "Given my interest, I was invited to the Gathering and went with an attitude to help and observe. Not being an 'organiser' probably gave me a different view of the Gathering. It threw the situation 'upside down' so to speak as this very much a Traditional Owners' event and I was of the minority. I felt very honoured to be a part of it.

"Spending time with the Traditional Owners - meeting; talking; listening; learning; hearing how it was for Auntie Rae Solomon-Stewart living on the Snowy River as a young child; being accepted by the group; to sit under the stars and around the fire watching the Doonooch Dancers; being aware of the linking of ancestors to the present - it was transcendent."

Deb also found the Gathering incredibly valuable on another level: to have the opportunity to speak to people in the Federal Department about what else is happening in Australia and funding arrangements; and to hear about specific case studies such as the partnership between Parks Victoria and the Yorta Yorta Nation.

"People came with a positive, open and partnering attitude, and it felt just like it was - a Gathering. The general feeling for the next Gathering was that it should perhaps be less structured with more time to sit and be together, because it's a lot to cram into just a weekend."



FAREWELL AND THANKS

As Rod Atkins' role as Program Manager comes to an end, Peter Jacobs, Convenor of the Australian Alps Liaison Committee looks back over the past three years...

"The time has flown and many things have occurred during Rod's reign. A review of the Strategic Plan was one of the first things to occur and some significant changes were made to address the issue of working groups struggling with capacity and the need for more focus. Rod implemented these changes - the most significant for the Alps Program for many years - and established new reference groups with a refocus.

In terms of positioning during Rod's time: the Australian Alps national parks gained National Heritage Listing and discussions with governments on World Heritage listing have continued; and the Alps is now part of Tourism Australia's National Landscapes featured destinations.

The landmark report on the state of the Australian Alps Catchments was also completed and Rod contributed substantially on behalf of the Australian Alps to the IUCN connectivity and cross border forum in Kathmandu, continuing our international engagement.

The science/management focus continued, in particular delivering the complex yet very successful visitor experience and alpine wetland forums along with many other workshops with themes as varied as cultural heritage, pest plants, Australian Alps Walking Track and deer management.

Our engagement with the Aboriginal community took a great step forward with the establishment of the Australian Alps Traditional Owners' Reference Group and the holding of the second of the First People's Gatherings.

There was also the considerable business as usual in developing, administering and running the program while servicing the AALC and Alps Heads of Agencies, of which Rod did a great job. Overall this has been a period of great achievement for the Australian Alps Program of which Rod should be proud. On behalf of the AALC may I thank Rod and wish him all the best for the future. In doing so I am delighted to welcome Anthony Evans from NSW NPWS as the new Australian Alps Program Manager."

LET'S WELCOME ANTHONY EVANS

The change-of-guard moment is upon us. It's been three years and the time has come for a new Australian Alps Program Manager to take on the role. As Rod Atkins heads out the door, Anthony Evans is walking in.

That Anthony hails from the New South Wales National Parks and Wildlife Service isn't a surprise, given that the role of co-ordinating the Program moves between the state agencies; a neat move

which helps to maintain a balanced perspective. In Anthony's case, the balance is personal, given his association firstly through growing up in and around the Victorian Alps; with his forestry career based in Canberra; his more recent role as Regional Operations Co-ordinator (NSW NPWS) out of Jindabyne; and his genuine enthusiasm for the Alps as a recreational walker, cyclist and cross country skier.

"My aim, like the Program itself, is co-operative management across the Alps. It may be stating the obvious, but the Alps are a small focus within the management responsibilities for each of the agencies. In managing an issue - such as mountain biking - it's likely that there will be similarities and shared expertise amongst the Alps section of each agency, more so than perhaps within each agency itself. Having said that, there will always be differences between the Alps agencies, in the methods used as well as the overriding legislation, but we can continue to capitalise on sharing around the best of that expertise whilst respecting these subtle differences."

Anthony's already out and about. "I'm looking forward to the next three years, to being out in the field, meeting people, learning about their work and visiting sections of the Alps I haven't had the chance to see before."

Anthony can be contacted: NPWS office in Jindabyne (PO Box 2228, Jindabyne, 2627), (02) 6450 5507, 0428 484 119, anthony.evans@environment.nsw.gov.au.

The Frontline workshop is a bit like a travelling show. Weaving its way around the Australian Alps, it sets itself up in different locations to bring together those people who come face-to-face with Alps' visitors on a daily basis. Over many of the past 15 years, tour operators, rangers, resort staff and others have been able to gain a greater understanding of these mountains - the geology, biodiversity and cultural values - thanks to this roadshow thoughtfully tailored to each region.

WHEN FRONTLINE CAME TO RAWSON

In late May the location was Baw Baw National Park where a group of about 30 gathered at Rawson as guests of the Australian Alps Program. As in the past, the aim of Frontline, was to help these people with different perspectives and a common bond to become alpine ambassadors. Organiser Neville Byrne explains. "Whether you're taking a booking at the front counter or you're a ranger out in the Park, you each have the same role - a duty of care to provide good information, to speak about the Alps with knowledge."

Over the course of two days, expert speakers left participants with exactly this. There was an understanding of Indigenous culture through Ricky Mullet of Parks Victoria; an exploration of the geology thanks to Dr Vince Morand of GeoScience Victoria; and

Dr Greg Hollis, an ecologist with the Shire of Baw Baw explained various ecosystems during a walk up to Mushroom Rocks. Volunteers at the Long Tunnel Tourist Mine helped the group gain an understanding of why Walhalla exists where it does, and Michael Leaney (in an after dinner talk) explained how visitors now enjoyed the area on the Great Walhalla Alpine Trail.

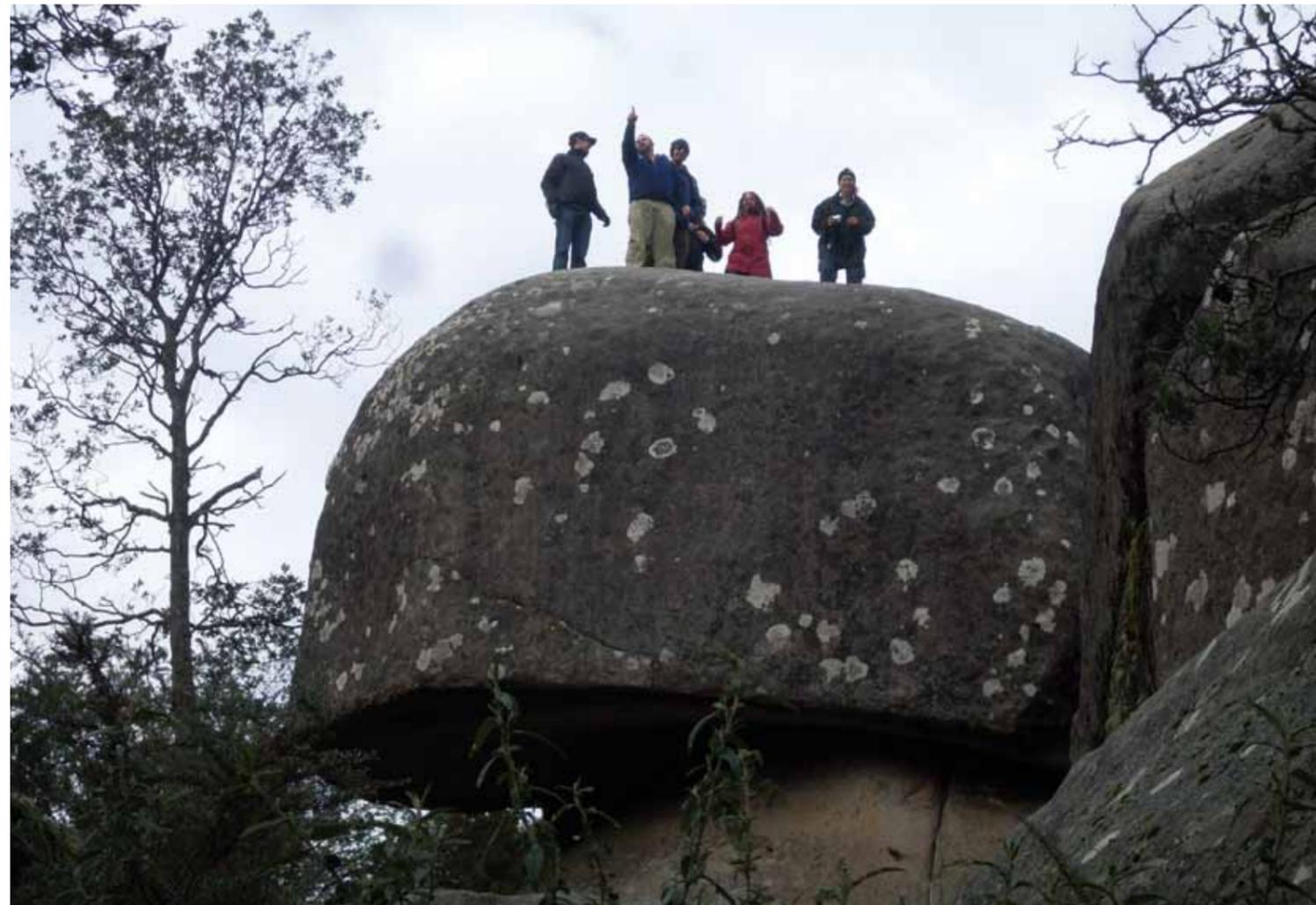
Participants were offered a wealth of information. There was a discussion about how to gather and present Indigenous culture information appropriately, especially in locations where stories may still be guarded. Ecological relationships were explained through several case studies: such as the fire history behind a patch of 40 year old wattles beside the track (fires in quick succession effectively remove the

Mountain Ash); or why the Baw Baw frog will likely survive the threat posed by the chytrid fungus (luckily, part of its habitat range is inaccessible to the local infected host frog species, the Common froglet). Perhaps most interesting was the answer to the fundamental question - why are there Alps?

All this information was provided to each departing guest - a party bag filled with a download and a CD copy of the Alps Education Kit. And as the circus tent was lowered following yet another effective session, another batch of people with a great respect for this landscape and equipped with perhaps a greater knowledge, headed out to share what they know.

Keep a look out for when the circus comes to a town near you...

Dr Vince Morand, Senior Geologist with GeoScience Victoria, shares his rock knowledge with the Frontline group.



The world is more complex and less predictable than we thought. We've come to the realisation that we may have oversimplified things in the past and that our park management strategies are now seen to have been overly simplistic. We didn't understand the nuances of how natural systems behaved or that they are unpredictable. This is how Nature operates and it's how the world really works – it's often unpredictable. But we are learning to deal with that: we must dance together with the changes in order to influence and deal with them. It's ongoing for at no point can you hand over a recipe and walk away.

LISTEN TO HARRY

There you have it – the essence of the Harry Biggs message, based on more than 15 year's work in strategic adaptive management in national parks. Harry is Program Integrator: Adaptive Biodiversity Outcomes, Kruger National Park (South Africa), co-author of *The Kruger Experience* (Island Press 2003) and therefore an ideal person to bring to Australia to share his knowledge*. And share it he did, via a whirlwind tour that brought scientists, managers and the rest to hear him speak in Perth (thanks to Murdoch University and the WA Department of Conservation), Canberra (ACT Parks Conservation and Lands and Parks Australia), Beechworth (Australian Alps Liaison Committee); Melbourne (Parks Victoria), Sydney (Department of Environment, Climate Change & Water and the University of NSW) and Brisbane (QLD Parks & Wildlife Service and University of QLD).

What everyone heard was a description of the cutting-edge science-management buddy or team work scenario which is the basis of the Kruger management experience; on the ground, day to day.

"I am only one of the many people who practice adaptive management at Kruger National Park. We've been fortunate that this approach was able to be started earlier than perhaps elsewhere in the world, through South Africa's relatively recent political change which brought with it an acceptance of change, a window of opportunity to try something new. This, combined with the high number of scientists at the Park, has meant that we've been exposed to new ideas which have led to a

Dr Harry Biggs from Kruger National Park (South Africa) taking some time out of his busy lecture tour to see some of the Australian Alps (atop the Horn on Mt Buffalo).



different approach to Park management."

At the core of this fresh approach are the Kruger buddy teams – scientists and managers, working together on a daily basis, sharing the management responsibility. In action this broadly breaks down into: the scientist forecasting the best way to achieve an objective based on existing research; the manager undertaking the works; the scientist monitoring the outcome; then the scientist and manager reviewing how successful the work was and then adapting and planning the next steps. And so the cycle goes, on and on and on.

This system is effective because science can immediately assist management. The revolutionary idea (for park management) however is that there is joint decision making for operational decisions. Australian managers are used to listening to scientists, hearing their advice and then making the best judgement (often based on experience) in undertaking their work. They may or may not use the science advice and accountability for the decision rests completely with the operations manager. This is being seen to be an 'old approach' particularly when the issues are so complex and where managers are held accountable for their decisions.

In Harry's South African national parks model, not only do the scientists have an active role in setting the objectives of management in the first place, they help make operational decisions and help assess performance once the operations are completed. They are equally accountable for the decisions made. This is a huge

difference. It means that the complex and dynamic world of nature is being managed by scientists with detailed knowledge and understanding of the ecosystems concerned as well as by the operations managers who know the best way to implement actions. It is an important 'science-management' partnership approach in a world that is forecast to be constantly changing with climate change.

So how is a revolutionary approach like this adopted? "Certainly many people are receptive to this changed approach – the realisation that we're not dealing with static situations – it's happening world wide. At Kruger we saw that it takes time to develop a culture more appropriate for change. People need time to adjust, but the sooner a start is made the sooner big differences can be made."

Harry recognises that subsistence cultures already understand this approach, and that we could do well to shift from a control-equals-good-management model to one where expecting-and-adapting-to-the-unexpected is more sustainable. "We'd do better to develop a sense that we need to relax and stop aiming to achieve 100 per cent control; that in fact we don't have ultimate control; that the systems are bigger in many ways than we can appreciate; and that we can't order them around."

To some this may be a confronting approach: to others it's intuitive. It is somewhat difficult to get in sync, but once seen in action, the results help it spread by itself, across administrative and other boundaries and out over a landscape. "People just get into that way of thinking."



thresholds of potential concern

The approach to Strategic Adaptive Management recognises monitoring the condition of the natural environment within pre-determined thresholds of potential concern and undertaking management response actions if the condition is unacceptable. These thresholds are important, and really set out to describe the end point sought by management relative to the objectives set. For elephants (for example) one 'threshold' may relate to a maximum percentage of a savannah woodland type being disturbed and another end point could be a percentage of woodland that was undisturbed.

driving things from the field

Tony Varcoe (Manager of Research and Management Effectiveness, Parks Victoria) is one of the people who not only heard Harry speak, but presented two case studies as part of what was in fact the fifth Alps Science Management Workshop held at Beechworth.

The two projects described by Tony are part of the of adaptive experimental management (AEM) projects begun by Parks Victoria about five years ago: in this case one on fox control and the other on English broom (*Cytisus scoparius*).

"Even though we have had a large investment in both fox control and English broom control, there had been little data to demonstrate the effects of control programs on these pests. Therefore these latest two AEM projects were established to quantify the efficiency, effectiveness and environmental outcomes of different types of control treatments. In the case of foxes this was to test different baiting regimes (e.g. seasonal, continuous or pulsed), while three different herbicides were tested as control methods for English broom. Both projects took a very scientific approach and the results encountered provided a few surprises."

Somewhat prophetically, Harry Biggs warned his audiences not to be surprised by the surprises.

The results can now be applied in the field, both to improve the effectiveness of Parks Victoria control programs and hopefully maximise environmental outcomes. However both projects also demonstrated that AEMs require a great deal of commitment and appropriate upfront design to answer specific questions. "We produced a lot of information useful to management as well as raising a number of new questions."

Considering the prospect of implementing some of the Kruger National Park approach described by Harry Biggs, "We have very good external research partnerships, however one of our biggest challenges is in our *internal* science capacity. While we have a wealth of management expertise we have very few scientists or specialist ecologists in our regional areas to design and run future programs. The great value of the Kruger experience is that park managers have worked hand in hand with scientists to develop and document very clear park management objectives and measures of success. It is really important that adaptive management programs are owned and managed by our park managers, rather than be perceived as 'head office' science projects. They need to be initiated by regional park managers, used by them with trusted science, and delivered so that results can be quickly fed back into management."

a word from Worboys

"Professional protected area management is practised in most countries of the world and it is needed, with over 11% of Earth reserved as protected areas!

We are very lucky. It is a remarkably collegiate profession and there is no doubt that a shared view and commitment about conservation for a better Earth exists. For this reason, protected area management organisations are typically generous in sharing their knowledge and experience. Where some countries and organisations have become more advanced in some fields of management than others, there is a willingness to share such knowledge. This is the situation with Dr David Mabunda, Chief Executive of SAN Parks and hence his authorisation of a visit from Dr Harry Biggs to share with us the cutting edge thinking and on-the-ground experience found at Kruger National Park. There is no question that something innovative has developed at Kruger. Scientists and managers, working together in a shared way to problem solve and this is an important lesson for a world being affected by climate change.

We believe Australia is ready and open to learn more about this approach, which is why we invited Harry to speak – to explain how in the Kruger methodology, science and management work together to deal with complex problems in an adaptive way. We can learn from the SAN Parks model."

- Dr Graeme L. Worboys, Vice Chair of IUCN's World Commission on Protected Areas (Mountains Biome and Connectivity Conservation)

sitting in the audience

Pam O'Brien is an Area Manager with the New South Wales National Parks and Wildlife Service, based at Jindabyne. "When I first heard about Harry Biggs and adaptive management I thought I knew what it was, and I thought I was already doing it. But hearing it directly from the source, I realised that while we may be doing it in some ways, we're not doing it as they are at Kruger."

In some ways Kruger is the ultimate national park – big native animals; fire; Indigenous peoples living in the park; ample funding – and while there are obvious differences between the South African and Australian scenarios, the adaptive management approach can be effectively applied wherever. "Harry explained that even if we're lacking the research, we can manage on a hunch as long as we think about what the outcome should be and then measure what we're doing and evaluate it. He also warned us that what we might expect to happen, might not, and that we'd need to be able to let go of the original hunch and move on. Monitoring is the only way this can take place."

As for the manager-researcher team approach, Pam says, "Their goals are different. The Manager wants to achieve the priorities on their job list in the quickest, most efficient way. The researcher is driven by different incentives."

Working teams could be created by having them spend time together in genuine situations where they share the same goals. "We managers can have limited vision in dealing with specific issues. We've often asked ourselves, who's the brains of this outfit? Equally a managers role is to temper some of the less practical ideas of researchers."

Pam's overall take on how best to use Harry's advice is, "While we're getting our act together in terms of monitoring, we need to do more research, specifically targeted as part of general practices. To do this the scientists need to tag along and gain a sense of the whole picture including any community sensitivities so that their contribution is relevant."

*Dr Harry Biggs' visit was facilitated by IUCN's (International Union for the Conservation of Nature) World Commission on Protected Areas and sponsored by the Australian Alps Liaison Committee, and Park Agencies in Western Australia, Queensland, NSW, the ACT and Victoria. Parks Forum (the professional body for parks agencies in Australia, New Zealand and the United Kingdom) facilitated Dr Biggs logistics.

Following seven years research into high country fire management, a group of people from every conceivable parks agency and fire authority across NSW, the ACT, Victoria, Tasmania and Queensland gathered to explore the results. Under the auspices of the Bushfire Co-operative Research Centre - a national body devoted to researching and sharing information on fire behaviour - this forum allowed science to meet on-the-ground practice. In a series of speed-dating-like presentations, the latest findings were shared amongst those people best positioned to make good use of them.

HIGH COUNTRY FIRE

Held in Albury over two days in late May, around 20 researchers presented their work - to a 100-strong audience - in a format which limited them to 20 minutes in total, the focus being on how best to take the research findings and put them into a practical context. Neil Cooper, Manager of Fire with ACT Parks Conservation and Lands helped host the forum and in his view there was no question the forum offered a wealth of new information to take away and influence fire management protocols.

"Rick McRae (ACT Emergency Services Agency) and Jason Sharples (Australian Defence Force Academy) presented their work on weather patterns in the high country, looking at the interaction of terrain and fire weather to help better make predictions. "Being aware of this type of information is absolutely critical. We now need to take this research and include

it when training airborne observers, so that when they spot these different kinds of winds, they can relay the information to the ground.

"Their work has also identified the phenomenon of high temperature thermal belts which help explain and to plan for extraordinary fire activity at times when people least expect it (for example at 3 a.m. in the morning). Information like this is crucial in an effort to make predictions, to better plan and provide greater safety for fire fighters.

Other parts of McRae and Sharples work also addressed fire-fighter safety issues as it questioned the previously held belief that the lee slopes are relatively safe from fire. "These results are changing the way we need to think when predicting fire behaviour or siting built assets in the future. With a growing understanding of how terrain and weather interact, we can better predict and therefore manage fire."

In addition to this work and a number of other presentations, it was the presentation from Justin Leonard (CSIRO) that grabbed the interest of those involved in alpine ski resorts. Justin explained his findings on protecting built assets,

identifying previously unknown weak points in structures such as the hairline gaps between weatherboards." This type of information is again a critical part of protecting assets from unplanned wildfire in the High Country.

Whatever the findings, fire remains a complex issue. It was pointed out during the forum that "it all comes down to a trade off between managing the fire risk, the carbon, the water and the political environment." The more information that is available to the operational people in the field, the more rational and sensible decisions can be made to achieve positive and safe outcomes.

And as we attempt to balance these we also need to push for the research to be incorporated into current philosophies and practices. "It's all about research adoption otherwise we've wasted our money and time. As managers we have a responsibility to make people aware of this information. It's our obligation to disseminate this to the people who can best make use of it on the ground."

For more information about the material presented visit www.bushfirecrc.com



the new model

Phil Zylstra, the New South Wales Parks and Wildlife Agency's Fire Technical Officer, was one of the forum's presenters. His fire behaviour model - as part of his PhD research at the Bushfire CRC - is a radical departure from the traditional model based on fuel, terrain and weather. Phil's model does make use of terrain and weather, but instead of over-simplifying fuel as just a weight of material, it calculates what will burn with a series of up to 100 separate equations, fed with data taken from the plants in a specific landscape.

"When I first began to look at fire, it didn't seem right to be making predictions primarily based on the dead leaves on the forest floor. According to traditional thinking, fuel is measured by weight so that the assumption is made that an area with 20 tonnes of fuel is twice as flammable as one with only 10. In practice however, there is no evidence to show that this is the case.

"For example, using a method of *if... then* statements, we could look at fire in a forest. *If* the burning litter was able to ignite the understorey, *then* this would produce a larger flame. *If* the burning understorey was able to ignite the mid storey *then* this would produce larger flames again. And *if* these larger flames were able to ignite the canopy, *then* larger flames again would result."

According to Phil, to predict the likelihood of any of these stages, data on the physical structure and conditions of the *plants* making up a landscape is needed. This is then fed into the equations along with information about recent conditions, current weather and the lay of the land. Phil's model also has the capacity to update information, even allowing for adjustments to growth over time.

Of course fire remains a remarkably dynamic force, but the model has already shown its worth, even when only partially completed when it was used to predict the behaviour of a fire in the ACT in February 2009.

But what is probably key is that this tool's most valuable contribution will not be to help manage fire incidents, but rather how best to manage fuels in the landscape to optimise biodiversity.

Experience seekers mountain biking at Mount Buller.



The ribbon's been officially cut. In his opening address at the international Healthy Parks, Healthy People Congress in Melbourne (April), standing in front of over 1000 delegates, Federal Environment Protection Minister Peter Garrett highlighted the release of the Australian Alps Tourism Strategy.

OFF AND RUNNING

"I've been keen to see the economic value of protected areas recognised... I'm pleased to announce today that the Alps have developed a brand new experience development strategy designed to give visitors the chance to better connect with this incredibly beautiful environment."

In a nutshell, Minister Garret summed up the essence of the Alps' place in Tourism Australia's National Landscapes Initiative - that it is a remarkable tourism destination recognised as one of 15 destinations being promoted to an international market. And his support for the Alps' Tourism Strategy marks the beginning of the next phase. Ian Geer, Chair of Australian Alps National Landscape Inc. explains. "It's been ground breaking work and now that it has been formerly welcomed by its Federal patrons, is all set to go. Thanks to the body of work already undertaken, we've identified the priority action items: one of

which, a web presence under the wing of Tourism Australia, is now in place*."

The newly launched *There's nothing like Australia*, international advertising campaign, showcases the Australian Alps, two clicks in on the home page - an astonishing result borne from a well built relationship between the two partners, Tourism Australia and Parks Australia.

However much is still to be done by many within the Alps who recognise the ultimate value of the Tourism Strategy. "The potential outcomes are significant. It's about managing this landscape sustainably for the many communities who depend on it. Our job now is to strengthen the products on offer at the destination."

Yet again the Alps best operates as a unified landscape rather than a series of state-related segments. Step one is being achieved - experience seeking tourists know that the Alps exist. The next task is to present a unified front in terms of quality products and ease of access.

* check out the link at www.nothing-likeaustralia.com/, under destinations.

As Neil Cooper says, "People at these forums appreciate the need to make sure the information gets back to the people in the field."



Anwareen Farouk (Parks Canada, centre) and above to her right, Dannica Shaw (Parks Victoria), surrounded by those who gathered on Mt Stirling to share their exchange program experiences in an alpine setting.



There are benefits to being part of an exchange program that extend beyond the obvious. Parks Canada and Parks Victoria staff enjoy the broadening experiences that working in a fresh setting offers as part of an ongoing program, but sometimes it's the small moments on the side that are worth a great deal... like the recent get together one weekend in the Alps.

DIFFERENT PARKS, SAME VALUES

It was designed to be an opportunity for everyone to meet – exchangees from Canada and those from Parks Victoria who were either part-way through their exchange or about to begin one. Dannica Shaw (Alpine National Park), helped organise the get-together. Half way through her Canadian exchange she explains, "For me, being on exchange is full on – at the start, you don't know anyone and you're working in a new organisation - there can be a lot of challenges. We wanted to help

the Canadians with their exchange here and I wanted to share the Alps with them."

Five Parks Canada people and their families were taken on a camping trip which included a 4WD day trip up to the Craig's Hut and over Mt Stirling. "Three people are based in Melbourne so we were conscious that they may not have the opportunity to get up here, to show them a different landscape – the mountain ash and the snow gums. 4WD is not a common activity in the Canadian Parks

so we thought they would enjoy it, and we were really fortunate to have rangers Nigel Watts, Chris Clarke and Tamara Watson along to share their local knowledge."

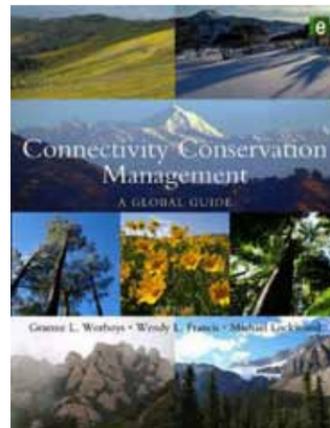
Anwareen Farouk lives in Ottawa, working in the National Office of Parks Canada in the Strategy and Plans Directorate. In Canada she is involved in management planning and reporting for national parks and national historic sites, and while here in Australia she's been working on a review of the Parks Victoria heritage management strategy.

"The trip to Mt Stirling was good because it was an opportunity not just for the Canadian exchangees to meet but also the current and some past Parks Victoria staff who've been part of the program. It was a great way to relax with the others and find out how they experienced Canada, to share that feeling that we're all going through similar challenges.

"It was also wonderful to have the opportunity to enjoy some of the experiences provided in the parks to visitors, especially the 4WD which is new to us. Visiting Craig's hut which was fabricated as part of the set for the movie *The Man From Snowy River*, was interesting given that while it is not authentic, it does have cultural values much in the same way we have a homestead known as Anne of Green Gables where the books' author grew up."

In a wonderful setting, amongst people who share the same values, the Canadians and Victorians enjoyed a roast dinner - beef and fetta with potatoes - on an open fire. "We've been made to feel very welcome. We've been treated so well. I've had experiences I will remember for my entire life."

BOOK REVIEW



Connectivity Conservation Management: A Global Guide (Edited by Graeme L. Worboys, Wendy L. Francis and Michael Lockwood; Earthscan 2010) is a worthy read for anyone in the business of protected area management. A collection of case studies including one featuring the Great Eastern Ranges Initiative* and another - thanks to authors Rod Atkins (see inside front cover of this publication) and Gill Anderson (Visitor Services Co-ordinator for the East region of Parks Victoria) – describes the Australian Alps national parks Co-operative Management Program. While it's a pleasure to read, it's *also* chunky enough to offer up fresh ideas to even the most seasoned connectivity conservationists. Available through earthscan.co.uk
*for more information visit: www.greateasterranges.org.au/

There was wind. And rain. And a daytime high of five degrees, but that didn't stop more than 150 people showing up to the open day at the Kiandra Courthouse and Chalet in Kosciuszko National Park.

1890 MEETS 1960

On show were the results of the first stage of heritage restoration works to what was originally a courthouse and police quarters (1890), but later became a thriving ski-lodge, for local communities and Snowy Hydro workers in the 1960s.

Prior to the restoration, the original 1890s building had been extensively modified and completely subsumed by 1960s additions. The NSW National Parks and Wildlife Service has been working on the project for just over a year and as project manager, Jennifer Hewitson, says, "The feedback we received at the open day was great. We're really encouraged to push ahead with further work on the site."

Also on display was the restored courtroom exterior, the interior of the partially restored courtroom, the restored chalet lounge room (complete with furniture and exhibits from the 1960s), and plans for stage two.

Ultimately, the restoration when complete will bring together both the 1890s and 1960s building styles, and reconcile them into a modern, comfortable and versatile building to be used as the Kiandra interpretation and education centre. Long term plans include providing simple café and rest facilities as well as an exhibition space for local history.



NPWS manager, Steve Horsley officially opening the new Kiandra Courthouse.

BEYOND THE WHITEBOARD

A mixed bunch turned up for a Heritage Skills workshop held at Howman's Gap in late March. Parks staff, huts volunteers and experts came together to learn more about how best to care for all those special places dotted across the Alps that have a human connection.



Time to break for lunch at Cope Hut, Victoria's Bogong High Plains, after working out what holds it up.

Hydroelectric, Indigenous, mining, huts and homesteads – the list was long and fascinating and so was the philosophy and methods behind their management. Better still was the way a large amount of information was put across, and if you're the type of person who breaks out in a rash when forced to look at a white board, this was *nothing* like that. Note for the future: this is the workshop of your dreams probably because in its list of objectives the organisers bothered to include two magic words – have fun.

Which the 30 or so participants did. Yes there was meat – Burra Charter, processes and procedures – but then there was a chance to see what that meant in the real world. Like visiting the ANARE shed circa

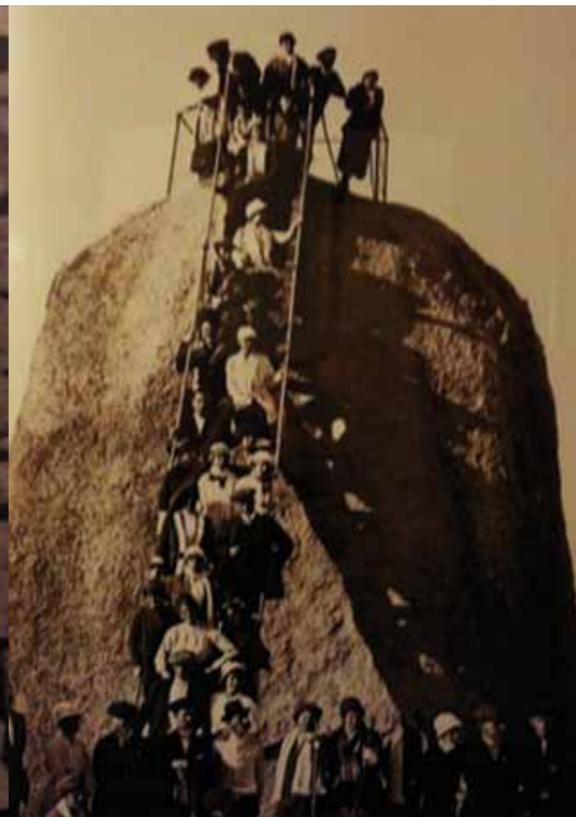
1950, sited on the edge of Pretty Valley reservoir and used as part of Australia's Antarctic training for, among other things, cold water immersion. Standing there, participants dragged out the theory to feed the debate on the hut's significance, alpine relevance, and the most appropriate way to reflect that through demolition, restoration, or even the degrees of signage needed to help visitors appreciate the site.

Or the group's visit to the late Masie Fawcett's now famous exclusion plots – sections of the Alps which were fenced off in the mid 1940s to learn more about the potential impact of cattle grazing. With the cows removed in 2003, the plots' original function no longer exists. The debate here was the value of acknowledging

past scientific work and conservation philosophy. It was also about the ongoing value of the data that has been collected continuously since then – information which is priceless for other current studies, particularly related to climate change.

Also on the list of to dos were: practical demonstrations of restoration methods including slab splitting and masonry; after dinner speakers telling the many stories of the Alps; virtual tours of the Alps as a broader interpretive tool; and visits to some of the hydroelectric infrastructure.

Above all it was a chance for people to make connections with others who have similar interests and responsibilities. A great event organised by the Cultural Heritage Reference Group. Do get along to the next one.



1. Skating fashions of the 20's. 2. Fashionable ladies. 3. Chalet guests at The Monolith, 1914.

When 500 guests are expected and 1800 turn up, you stop and take notice. In this case the party was being held to celebrate Mount Buffalo Chalet's 100th birthday, and the fact that so many people made the effort to be there is proof of their love for this alpine cultural icon.

A SHIP IN THE MOUNTAINS

"It was like a ship, out in the middle of the ocean, separated from the world by a single dirt road. Arriving late in the day, it was an island in the sky." Parks Victoria's Enzo Brotto is among those who currently care for the Chalet. "You feel the history."

It's this history, as much as the place itself, which was being celebrated on that day in early May. There were people everywhere: being guided through the buildings by well versed volunteers; listening to the brass band play in the dining room or a jazz trio breathe the 1930s back into the bar; viewing photography and art exhibitions with the chalet and mountains as their central themes; playing croquet on the lawns; relaxing in the cafe while younger visitors met Ranger Roo, had their faces painted or scored commemorative pennies.

And through all this fun and activity, Mount Buffalo Chalet's value was re-visited from two perspectives: the building itself, but also the connection so many people have with the place through their experiences and memories.

"Back in those early days, most families wouldn't have owned a car so to go on a country holiday you bought a package through the Victorian Railways. You'd get yourself to Spencer Street Station, then take the train to Wangaratta, then on to Bright where you'd be transported up to the chalet." For many years this would have meant an eight hour journey in a horse and cart. "The chalet was run by the Railways; staff wore the Railways' uniform; and it was run very much like a railway station."

Open year-round, these chalet holidays weren't cheap and they allowed visitors to enjoy hiking, horse riding, boating and swimming in summer; skiing, skating on the lake, and bushwalks through the snow in winter. "In winter the alpine ash and snow gums are carpeted underneath with snow, hiding the untidy Australian forest floor. There's a crisp cleanliness to the air and it's quiet apart from the scrunch made by your feet on the snow." For what was back then an essentially English society, in a very different land, snow was very special.

Walking around the chalet so much of these past eras is evident just from the rooms and fixtures: the games room with its huge billiard table where WWII servicemen gathered for rest and recreation; the quiet reading room where women went to write letters and postcards home; the strange double door arrangement in some rooms to allow assignations to take place discretely.

For a sense of what it was like to stay, The Honeymoon - http://www.youtube.com/user/ParksVic#p/u/10/9aKJyQn_-sk - is a wonderful story, told by Laurel Whitcroft who first visited the Chalet in 1950 and then returned for other holidays.

the future... It's exciting times for the Mount Buffalo Chalet as the tender process – to determine who will take out the new lease – draws closer to being finalised. Whoever does take on the responsibility to manage this wonderful site's future will enjoy the possibility of an up to 50 year lease (recently approved by Parliament and an improvement on the previous lease length of 21 years) as well as six million dollars of Parks' Victoria support towards an upgrade of the Chalet's essential services – power, water and sewerage. Watch this space...

There are five national parks and a wilderness park (not to mention another fist-full of significant areas), sitting within the Victorian section of the Australian Alps for which Parks Victoria is responsible. Known as the Greater Alpine national parks, together they are all managed to plans of various ages and styles which need to be periodically reviewed and refreshed – something that is happening right now, but taking the opportunity to bring them all into one landscape scale plan covering 900,000 hectares.

WEPLAN THE PLAN

Known (not unexpectedly) as *The Greater Alpine National Parks Management Plan*, it is designed to replace the existing more prescriptive plans with a strategic framework and vision onto which the detailed management of each area can be aligned.

The aim is to be visionary, to keep the Greater Alpine national parks heading on an agreed path with major aims and objectives sitting like landmarks along the way. As for the detail – the tactical things like works plans and projects – these are identified and the details defined on a needs basis, fitting like pieces into the main vision.

All this is made possible through a logical hierarchy. The main plan plots the

strategy for a 15 year period. To produce and manage the detail, another five year plan sits beneath it acting as the implementation plan. And finally an annual plan – which could well be described as the works plan – converts strategy and vision into timing of tasks on the ground. Together there is direction yet the flexibility to shift course as to how it's put into practice, rather than implement something set in concrete up to 15 years prior.

As part of this review, the web is helping in the drafting of the overall strategic vision. Visit Parks Victoria's home page (www.parkweb.vic.gov.au/) and click on the wePlan Alpine link (dead centre in blue,

www.weplan.parks.vic.gov.au/) and you're instantly part of a greater community of people, who are reading and commenting on the working draft of the plan. Of course the usual processes of formal public comment will also occur once the final draft is released, but this added means of circulation for comment prior to that is proving invaluable to the plan's development team.

The ultimate aim is to have *The Greater Alpine National Parks Management Plan* tabled in Parliament by the year's end, a plan which is aligned with the Australian Alps Liaison Committee's own Strategic Plan.

Seems that spotting when you're on Australia's highest peak is more difficult than you'd expect. Rod Atkins* explains.

THE GREAT SWITCHEROO



The Lajkonik Polish folkloric ensemble seated beneath the statue of Polish Count Sir Paul Edmund de Strzelecki – the origin of a slight mix up.

We had a very significant Alps anniversary recently and it passed pretty much unnoticed. On 12 March 1840, Count Sir Paul Edmund de Strzelecki KCB CMG FRGS MRS reached the summit of a peak above the Murray River Valley which he determined to be the highest around, and named it Kosciuszko. He was guided by two Aboriginal men - Charlie Tarra (thought to be a Gundungurra man from around Goulburn and whose name is given to the Tarra River and Tarra-Bulga National Park in the Strzelecki Ranges in Victoria) and Jackey (of whom unfortunately, little is known) - and was accompanied by James Macarthur (a son of John and Elizabeth Macarthur). This ascent was part of a larger expedition by the group, from the area where Canberra is now located to Westernport Bay in Victoria.

As it turned out, it seems he was actually on the summit of what we now know as Mt Townsend, located a little to the north of Kosciuszko and the second highest peak on the continent at 2,209 metres. Mt Townsend (now Mt Kosciuszko) was named after NSW Government surveyor Thomas Scott Townsend who surveyed the range in 1846-47 and established the source of the Murray River.

Apparently the names of these peaks were simply swapped by the NSW Government in the early 1900s in recognition of Strzelecki's intention to give the name to the highest summit. If it weren't for that, perhaps Kosciuszko National Park might now be Townsend National Park. As it turned out, Strzelecki wasn't really a Count either. However, he did have several honours bestowed on him by the Government because of his exploratory work in Australia. Being Polish born, Strzelecki applied the name of the Polish patriot General Andrzej Tadeusz Bonawentura Kosciuszko who, in addition to commanding the 1794 uprising against Russia and Prussia to liberate Poland and Lithuania, also featured prominently in the American War of Independence and the house he lived in Philadelphia is an American National Memorial <http://www.nps.gov/thko/index.htm>

So next time you go to Jindabyne, instead of rushing through to Perisher, Thredbo or to the bakery at Nugget's Crossing, slow down and take a wander in the park on the right just after you enter Jindabyne and have a look at the statue there of Strzelecki.

*Rod is Program Manager for the Australian Alps Liaison Committee and editor of this magazine

Out in the field, keen Australian Alps Walking Track Workshop participants braved challenging weather.



At first glance, the Australian Alps Walking Track (AAWT) is a 650 kilometre-long opportunity to experience the Alps on foot. But break it up into its various sections, each managed by different units which themselves fall under the jurisdiction of agencies from Victoria, New South Wales and the ACT, and the track becomes a working metaphor for the Alps in general – precious beyond calculation due to the sum of its parts.

ON TRACK

And just as the Alps benefits from being managed as a whole, so does the Track. In the Track's case, this is achieved by the agencies with close support from various stakeholders, this experience and expertise being deliberately brought together every two years. Kevin Cosgriff, convenor of the Track's working group explains.

"The main benefit of these meetings is that it keeps the Walking Track alive and relevant. If it's on people's radar, it's not only managed well but the experience you get from being on the Track is also improved." Attending the latest meeting, held at Falls Creek in late March, were agency

staff involved in the operational management of their various sections, along with members of the relevant national parks associations, walking clubs and tour operators. The format was clever: staff caught everyone up with the goings-on within their particular section while everyone present soaked it up and offered feedback destined to influence future management decisions.

"A thorough review was made at the previous meeting at Kosciuszko National Park's Currango Homestead in 2008, so this meeting was concerned with refinement of: the strategic plan – the overview –

and, aspects of the operational plan – the day to day nitty gritty."

In practice this led to discussions on: a consistent approach to signage in the true wilderness areas (a well-loved and ongoing topic); how to improve web-based communications concerning the Track; and a tweaked vision statement. Despite the window of bearable weather closing too fast, the group made it out to inspect a section of the Track on the Bogong High Plains (Alpine National Park, Vic), proof of the Track's ultimate appeal. Whether you walk the entire length or sections, it's a significant part of the Australian Alps.



AAWT vision - for people to experience the uniqueness of a remote Australian alpine environment through the provision of outstanding walking opportunities.



Taking good management theory and putting it into practice is easy. Take the across-state-border gathering of people who deal on-the-ground with feral pig control in the Alps. Common sense shows that sharing what you know – about what works and what doesn't – makes everyone's life easier as well as helping to achieve the results everyone wants.

WHAT THEY KNOW ABOUT PIGS

It's adaptive management, but instead of each agency working in isolation on their own home patch, they come together to share their experiences and methods. That's what took place in early May when those involved in feral pig control in the ACT invited their equivalents from Victoria and New South Wales along to this year's control program. John McRae, Senior Ranger, Tidbinbilla explains...

"It wasn't a workshop, but rather a chance to take a look at our annual control program, from the pre-briefing through to going out on the runs with the crews as observers. Our program breaks down into three sections, the pre-brief, the active phase

and the debrief which, based on good scientific process, looks at what worked well and what didn't." This last part, in the form of the post program report, feeds back into the beginning of the next cycle, influencing the following year's methodology.

For example, last year's program threw up a few points worth fine tuning, developing easier-to-use data input sheets and, how best to manage the baits. "After a long and successful history, the program is currently in a transition phase. Regulatory changes mean that we need to find new toxins and new methodologies so it's back to the drawing board you might say. And any change needs to be carefully

managed to limit the impact on non-target species."

Mike Rawnsley, Namadgi National Park's Ranger in Charge co-ordinated this latest session of the ACT's control program. "We had around 35 local staff at the briefing so that everyone likely to be rostered on over the next weeks would understand the new procedures. We also had Nick Jacobs from the New South Wales Parks and Wildlife Service and his team who came for the morning briefing and Jethro Bangay and John Silins from Parks Victoria who stayed for two days and helped do the set up."

A feral pig control program has been

running in the ACT since 1985, and this latest version is based on the information and experience that's been building since then. This year 1080 is being used, and the logistics behind its deployment is something to admire.

Timing is the first factor used to the control program's advantage for as the colder weather sets in, the pig population moves down out of the high country and into more accessible areas. Previously identified fire trails are then dressed at intervals with one kilo piles of pre-soaked, smelly wheat. "We paint a marker at each point and monitor what's eaten over several days." Where the wheat is eaten, it's replaced and remarked so that over the course of a few days a picture emerges of habitual feeding areas. Armed with this information, the trick is now for the team to set up a true bait station. "You develop a sense for what works well – a bit of level ground a little off the road so that the pigs are relaxed with somewhere we can set up the motion sensing-infrared cameras."

This is where the bait stations, designed to deter all but the target species, are set up. "For the first three nights, using footage from the cameras, we aim to set out roughly two toxin-free sausage baits per pig. On the fourth night the baits contain the toxin." This cycle is repeated until no more pigs are seen visiting that particular baiting station, and then the process is moved on to the next likely site. This year's program took roughly three weeks, including the trapping used to catch those pigs which proved to be bait shy.

Mike believes this concentrated approach has distinct advantages. "If control was ongoing, and part of a ranger's usual round of duties, then the toxin would be out there all the time with the associated risks to non-target species. There would also be the risk that a bait station or trap wouldn't be checked when it should." The time of year is also an ally, reducing the area that would need to be patrolled which translates to staff hours and fuel.

In terms of effectiveness, it's a case of programs like this knocking numbers way back. Feral pigs currently infest 40% of Australia and their reproductive ability – potentially two litters of up to ten young each year – poses an ongoing threat. "The fewer pigs we have the less ecological disturbance we can expect. When you see the damage they do, to the alpine bogs, especially after the damage caused by the 2003 fires, the effort is worth it." Or to put it another way, "Namadgi was set aside to supply Canberra's water and the pigs affect the quality of water we all drink."

Dr Forbes Hut, one of Kosciuszko National Park's five river stone huts, has been rebuilt again, this time following the 2003 bushfires.

DR FORBES NO. 3 IS COMPLETE

Top: Dr Forbes as it nears completion in late April, Garry McDougal (NPWS carpenter) and volunteer John Anderson re-pointing stone walls. Below: (from left to right) Geoff Becker, Garry and Jock Forbes (son of John Forbes).

The original hut, constructed of slabs, burned first in 1939 and was rebuilt in river stone. This river stone hut came to be known as Dr Forbes No. 2, named after the son-in-law of the Nicholson family who used the original slab hut, and this second reincarnation, as a base for fishing (which is ideal given it's location within the Geehi area along the Swamy Plains River). Like No. 2, this latest reconstruction is: a single room, gable roof structure; with a verandah overlooking the river; a chimney made from two 44 gallon drums; timber shutters instead of glazed windows; and corrugated iron roofing in short lengths as up until 1956, access to the hut was by pack horse. The reconstruction has been led by National Parks and Wildlife Service carpenter, Garry McDougal, assisted by contractor Geoff Becker and dedicated volunteers from the Kosciuszko Huts Association and the Perisher Historical Society.

Around 80 people celebrated the opening in true Dr Forbes tradition with a smattering of gin and tonics, but that's another story...



Shane Herrington, Aboriginal Discovery Ranger, the catalyst for this exhibition.
Photos by (clockwise from top left):
Murray Vandervee, Michael Simmonds, Murray Vandervee,
Mark Lang, Robert Morehead.



As NPWS Manager, Andrew Harrigan, explains, it began in October last year when Murray van der Veer, one of Australia's leading professional photographers, walked into the Tumut visitors centre with his family. There he met Shane Herrington, the Aboriginal Interpretations Trainee at the time, who has since won numerous awards and become Tumut's first permanent Aboriginal Discovery Ranger.

"Shane took Murray and his family on a tour into a section of the Park and this meeting spawned an idea to bring 16 known landscape photographers together for a weekend based at Currango Homestead, to develop a body of work that could be used to raise further funds to support the Program."

All went to plan and the resulting exhibition featured images by a range of artists including Jenny Blau, Mark Lang, and Kent Miklenda. Known as *Discovering Country* it opened in The Rocks, Sydney before going on show at the Snowy Region Visitor Centre in Jindabyne.

"*Discovering Country* pays tribute to the wisdom of traditional interpretations of land, and the skill and storytelling craft of 16 of Australia's best landscape photographers. It was a life changing weekend for the photographers who focused on incorporating local Indigenous people's understanding of the land in their own photographic storytelling."

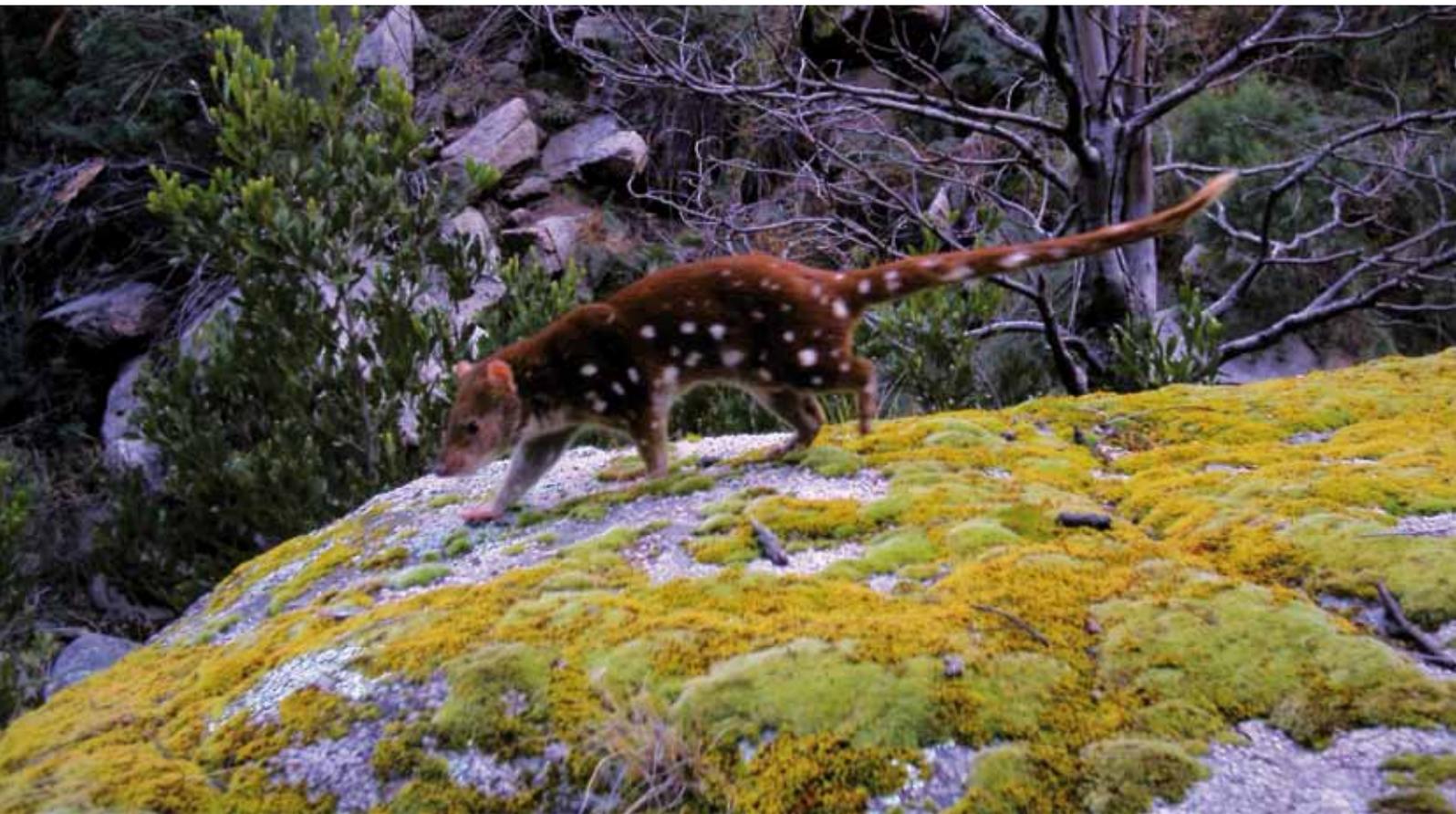
the program

The National Parks and Wildlife Service Discovery Ranger program trains and mentors local Aboriginal people to become tour guides. To date, 23 Tumut and Brungle Wiradjuri/Wolgalu people have completed both on and off the job training with many going on to secure ongoing employment in the tourism industry – and proceeds from the exhibition have helped support this further.

DISCOVERING THE LANDSCAPE

A chance meeting led to a photographic exhibition which has not only brought together some extraordinary images, but directly supported the National Parks and Wildlife Service Discovery Ranger program at Tumut.





No-one yet knows whether it's the male or female quoll which deposits the first pile of poo at the start of the breeding season, but people like Andrew Claridge, (Senior Research Scientist NSW NPWS) are very pleased that they do.

PILES OF TREASURE

"Previously we trapped these animals as part of a program of broad-acre monitoring in the 1600 square kilometre area of the Byadbo Wilderness of Kosciuszko National Park. But since 2005 we've gone on the great annual poo hunt at the end of winter which is the beginning of the breeding season."

Luckily for researchers, the Spotted-tailed Quoll (*Dasyurus maculatus*) has a propensity to create mini cairn latrines - predominantly of faeces - year after year often in the same or similar locations. Andrew and his fellow researchers walk the same area each year, marking the piles with a GPS, a more efficient monitoring exercise than the previous trapping.

"Female quolls live predominantly along the creek lines, occupying consistent territories within this home range. The males live pretty much apart and to themselves until the first poo deposit is made, which then begins a process where males

and females visit the deposits, exchanging information about their breeding status."

Females choose multiple males to mate with and a litter of young may contain genetic input from two to three males, an evolutionary bet-hedging exercise which improves the off-springs' chance of success.

However, the focus of this research project is not on reproduction but on establishing quoll numbers in a landscape where these animals have been pressured by fire and feral carnivores such as the fox. "The value of the latrines is that they confirm the presence of breeding females. We also set up infrared motion-sensitive cameras for several months at a time and record the comings and goings of the quolls and other ground-dwelling animals. This footage re-affirms what we are finding through the latrine monitoring. Quolls are consistently recorded in images, indicating a healthy woodland system."

Gaining an appreciation of quoll numbers is all part of the bigger park management picture. While research shows there is no short term negative effect on these endangered quolls*, given they occupy an area where canid (wild dog and fox) baiting programs are carried out, we need to gather more information over the longer term.

"We have a responsibility to check their status over time, to ensure that they are persisting in a landscape that we manage." And the signs are good. "We're getting success stories, and while the cameras have shown an increase in feral cat and deer, the number of foxes and wild dogs are down to manageable levels - all through a high level of commitment. We just need to keep at it."

*listed as a threatened species at both the State and Commonwealth level

people
working
together
for the
Australian
Alps



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The statements made in "news from the alps" are those of the various individuals and do not necessarily reflect the views of the Australian, New South Wales, Victorian or ACT Governments or their agencies.