



*Submission by the*

**Victorian National Parks Association**

*to the Victorian Government's White Paper*

**Land and Biodiversity**

**at a time of Climate Change**

*Submission on*

**Terrestrial National Parks and Reserves in a Landscape Context**

June 2006

*Note: this is a preliminary submission. A revised submission will follow the release of Parks Victoria's 2<sup>nd</sup> State of the Parks Report.*

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*“... we are greatly accelerating the rate of natural change with the consequence that, over vast areas of land, many ecosystems, with their associated flora and fauna, are now out of equilibrium with existing climate cycles... We are, in fact, conducting the kind of large-scale, uncontrolled experiment on the life-support systems of the planet that would be ruled unethical, and prohibited, in any field of science or medicine.”*

From *Victoria's Flora and Fauna: Can it Survive the Greenhouse Effect?*  
VNPA 1991 Conference Proceedings.  
Introduction by Dr John Busby, Australian National Parks and Wildlife Service.

*“Biological systems are likely to come under significant pressure from climate change, which is likely to proceed at a rate that will exceed their natural adaptive capacities”*

*National Biodiversity and Climate Change Action Plan 2004-2007,*  
Department of Environment and Heritage, Canberra.

# **Terrestrial National Parks and Reserves in a Landscape Context**

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**Victorian National Parks Association**

to the Victorian Government's White Paper

**Land and Biodiversity at a time of Climate Change**

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## **Introduction**

There is possibly no more fundamental task for the Victorian community to undertake than caring for the natural systems we have inherited. It is, simply, good housekeeping.

And more compellingly, the “house” we have inherited – the land in which we live, and which also provides us with water, food and considerable wealth – is a remarkable one.

We have inherited a land rich with a complex array of natural systems, inhabited by some 70-100,000 native plants and animals – the product of a remarkable 500 million-year-old process of terrestrial evolution. And an additional, far older, evolutionary heritage in our marine waters.

Unfortunately, over the last two centuries, the housekeeping of our predecessors has not been impressive. Despite often good intentions, and many good initiatives, they overestimated the resilience of this natural abundance, leaving us with a greatly diminished landscape and biodiversity in a state of almost relentless decline.

We know better.

We know the damage done and we can predict likely future impacts. We have the capacity to develop strategies to manage biodiversity and we have the resources, as a community, to do the job.

We can, and should, be the good housekeepers.

This submission will largely deal with securing the health of the conservation reserve system, but that can only happen in the context of biodiversity protection across the landscape.

This submission is not intended as a criticism of past practices, or those of agencies currently responsible for park and biodiversity management. It is put forward in the belief that Victorians can accept full responsibility for the land they live in – that we can now work to achieve long-term security for biodiversity in the State.

Importantly, we encourage the White Paper team to supportively seek the advice of Indigenous Victorians, particularly traditional owners, in the process of making recommendations for biodiversity and land health across the State.

## **The Victorian National Parks Association**

The Victorian National Parks Association (VNPA) welcomes this White Paper inquiry into Land and Biodiversity at a time of Climate Change.

The VNPA is an independent, member-based, non-Government organisation dedicated to protection of biodiversity across Victoria.

Since the VNPA was formed in 1952, we have fought resolutely for protection of Victoria’s natural heritage. Over the first 50 years, our efforts were largely directed

towards the formation, and appropriate management, of a protected area system representative of all ecosystems on land and sea.

Increasingly, however, the VNPA has recognised that biodiversity protection requires action across all land tenures, both public and private. And most particularly, in the face of climate change, it requires a radical reassessment of the ways we go about managing ecological integrity and land health across the State.

*“In the past, when climate has changed, ecosystems have managed to move and re-combine without high rates of extinction... This time, the difference [in impact] is due to the fragmentation of ecosystems through land-use change, and the presence of pest plants and animals. I think they are two of our greatest sources of vulnerability, so they are two factors on which we need to concentrate.”*

From *Victoria's National Parks: the Next Century*, VNPA 1997 Conference Proceedings. Issues paper by Dr Roger Jones, CSIRO Marine and Atmospheric Research, and President, Indigenous Flora and Fauna Association.

### **Some positives**

Despite Victoria's appalling rate of land clearing (with only around one third of the State's native vegetation remaining, and much of that in an impoverished condition), some very good things have happened here.

- Most significantly, since the formation of the Land Conservation Council (LCC) in the 1970s, Victoria has been systematically putting natural areas across the State into national parks and other conservation reserves, in an attempt to have as many ecosystems as possible included in the reserve system. This concept of a “comprehensive, adequate and representative reserve system” has become a fairly standard (if ultimately unachievable) aim worldwide, but it was a quietly radical move when first approached in Victoria.
- Importantly, the aim for representativeness of the reserve system, through the processes of the LCC (followed by the ECC and VEAC), has been a bipartisan one, and has generally resulted in bipartisan support for the formation of the park system.
- Parks Victoria has produced a State of the Parks Report in 2000 (one of the first in the world), and is about to release its second such report. Frank and fearless assessment of the ecological condition of parks is the first step in effective management.
- There is a considerable skill base, and considerable dedication, among many staff within Parks Victoria and DSE, and this has enabled some very effective management of the reserve system.
- Parks Victoria works increasingly strongly with Indigenous traditional owners throughout Victoria, and with local communities.
- Parks Victoria has been building links with the scientific community, and has recently appointed an “Environment Committee”, charged with providing scientific oversight of park management.

- The current Government’s enlightened decision to remove licensed cattle grazing from the Alpine National Park has heralded, hopefully, an era when decisions on park management will be solidly based on the evidence resulting from good scientific monitoring and research.
- Victoria has a long (and growing) history of community involvement in biodiversity restoration. Landcare membership, Land for Wildlife membership, “Friends” of parks groups and other volunteer efforts have all grown rapidly over the last 20 years, backed by a rapidly growing understanding of and concern for biodiversity issues within the community.

Nevertheless we must significantly improve, and effectively resource, biodiversity management if we are to achieve long-term security for Victoria’s great natural heritage.

### **Some threats climate change poses to national parks and reserves.**

Because the rainfall systems of the mid-latitude westerlies are shifting towards the South Pole, Victoria’s climate is predicted to become warmer and drier, featuring drier winters in particular – indeed we are already seeing this happen. (In addition, sea level rises, increases in ocean acidity and decreases in ocean oxygen levels will bring additional impacts on biodiversity – see VNPA Submission no 2: Marine and Coastal).

There are several well-recognised impacts that climate change is likely to have on our terrestrial national parks and reserves, and on biodiversity across the landscape. Among them:

1. Reduced winter rains will put stresses on many ecosystems, including:
  - native grasslands and grassy woodlands
  - riverine wetlands that require seasonal flooding
  - aquatic ecosystems
  - rainforest pockets, etc.
2. Increased fire severity and/or frequency will alter the species composition of a many ecosystems and threaten the abundance, or survival, of others such as:
  - rainforests, which recover poorly from fire, and largely survive now in areas sheltered from fire
  - Mountain and Alpine Ash forests which, though they require fire for regeneration, do not survive fire frequencies of less than 15-20 years.
3. Reduced snowfalls, earlier springs and other modified seasonal events will alter the invertebrate lifecycles on which so many species, and natural processes, depend.
4. Invasions of new weeds and pests, and the likely emergence of “sleeper” weeds and pests, as altered climate conditions give advantage to existing, but currently unproblematic, pest species.
5. sea level rises will affect the extent of coastal salt flats, and also impact on other low-lying communities, such as coastal casuarina and banksia woodlands.

These changes will advantage some species, and disadvantage others. In past periods of climate change, ecosystems would migrate, evolve and re-organise themselves to suit new conditions. This time, however, relatively rapid changes in climate, and

fragmentation of natural areas, will compromise the capacity of species and communities to adapt. And these impacts will take place in the context of existing impacts on our natural systems, such as weed and pest invasion.

## **What we have to do**

There are five important areas for improvement, five things we must do if we are to maintain the ecological integrity of our system of national parks and reserves.

- A. We must “complete” the representativeness of the reserve system as far as possible.
- B. We must radically increase the resources available so we can, over the long term, successfully manage the ecological systems of our national parks and reserves, in accord with the best available scientific advice.
- C. We must retain existing native vegetation across the landscape, and strategically establish connectivity to allow increased capability for species migration and effective functioning of ecological processes.
- D. We must set up comprehensive, systematic and continuing monitoring of ecological systems across the State, providing the decades of data that will be essential for future generations of scientists and land managers.
- E. We must enact a comprehensive education program, allowing the Victorian community to be fully aware of threats to ecological systems.

### **A. “Completing” the reserve system**

While Victoria has done well in aiming to set up a representative system of parks across the State, that is never going to be completely achieved, given that Victoria has cleared far more of its native vegetation than any other State. (Some 40% of threatened species in Victoria are found on public land, which is fair indication that all is not well even with the “uncleared” sector.)

There are a few things that must be done here. With VEAC currently holding an inquiry into Red Gum woodlands and wetlands of northern Victoria, it is clearly the time to ensure we give very good protection to these important wetlands and riverine woodlands. It is also time to look at a range of unprotected communities in far south west Victoria, and to increase reservation in the Strzelecki Ranges.

In 2001, the VNPA produced its third *Nature Conservation Review* which was also the first review to deal with both the terrestrial and the marine environment. The review outlines a number of ways in which the representativeness of Victoria’s parks and reserves is lacking, and it is an important attachment to this submission.

The following quote from the review is worth including here:

*“...there are possible strategies for improving conservation outcomes in a world with rapid climate warming. Two key steps are improving connectivity between reserves and identifying areas of remaining native vegetation that are likely to form refuges for ecological communities threatened by a warming climate.”*

*Nature Conservation Review*, Barry Trail and Christine Porter. VNPA 2001, p.110

Clearly, because of the large number of EVCs not included in the reserve system, we have to look at whatever protection we can salvage for compromised or threatened EVCs across the landscape. And we have to achieve strategic and useful connectivity.

## **B. Managing parks for success**

If we cannot successfully manage areas specifically set aside for protection of biodiversity (ie our national parks), we will clearly fail to manage biodiversity across the landscape. According to Victoria’s National Parks Act (1975) the prime purpose of national parks and state parks is, unambiguously, “protection of the natural environment”.

This is in accord with the internationally accepted (IUCN) definition of a national park.

And usefully, the *Canada National Parks Act (2000)*, which was framed more recently than our Act, clarifies this objective, and defines ecological integrity (an essential element of the “natural environment” as:

*A condition that is determined to be characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of changes and supporting processes.*

The purpose of our national parks is crystal clear, and has been so for decades.

Yet oddly (so far as this organization is aware) no-one in Victoria has actually costed, or even assessed, what it might take to successfully address all known manageable threats to our great national parks, let alone the rest of the reserve system.

If we budgeted for our health system this way, or our education system, there would rightly be community outrage. But, perhaps because ecosystem management is a relatively young endeavour (we didn’t know what an ecosystem was a hundred years ago), and the long-term threats to ecosystems are only relatively recently understood, we have come to expect the task is simply to do “what we can” within an inherited budget.

This is not just a Victorian problem, but a problem faced by protected area managers world wide. Indeed despite the relative impeccability of the Canadian Act, funding for Canada’s national parks is currently severely stretched.

For this reason, the range of assessments of the adequacy of current funding, which involve interstate comparisons or benchmarking against some identified “world’s best practice”, are fundamentally flawed. Similarly, measures of funding “per head of population” or “per hectare of reserve” also fail as meaningful assessments of funding adequacy.

(For the record, given that State by State comparisons of park funding are often quoted, it is prudent to point out, for example, that the comparisons quoted in the submission to the Senate Inquiry into Australia's National Parks and reserves "Conserving Australia" by GHD Pty Ltd, involve a common error. That submission takes budget figures from Parks Victoria's Annual Report, and compares them with reports from park agencies interstate. But Parks Victoria manages far more than Victoria's protected area estate – it manages jetties around Port Phillip, handles events like bay boat races and the Melbourne Grand Prix, and also manages a range of metropolitan parks that make minimal contribution to biodiversity. Therefore comparisons with the expenditure of other agencies are almost meaningless. The suggestion that Victoria's expenditure per hectare of reserve is comparable to the best in the land is almost certainly a considerable exaggeration of the situation.)

Our estimate for the slice of Parks Victoria's budget that goes towards managing ecological systems in our national parks and reserves is around \$30-40 million. That equates to less than the cost of a cup of coffee every few months for Victoria's citizens, to look after the prime areas of the State. We are running protection of what should be the finest 16% of the State – the national parks so loved by Victorians – at far below the community's capacity to support the operation.

It is time to change this situation, and actually budget for success in dealing with all manageable threats to our national parks.

If ecological communities are to cope effectively with climate change, we must remove all existing threats to the integrity of the park system, giving parks and reserves as much resilience as possible. We should establish:

1. Assessment and costing of the actions needed to successfully address all known currently manageable threats to biodiversity in parks.
2. Clear acceptance by park management staff and the general public that national parks are, foremost, places for the protection of ecological integrity. This should be the message at the heart of a comprehensive public awareness program. Visitor access to parks, and tourism initiatives, should be planned in such a way that they serve to increase levels of protection, not compromise protection.
3. Clear management lines throughout Parks Victoria for management of ecological systems, so park ground staff involved in conservation management report to dedicated regional ecological management teams and they, in turn, report to a head office ecological management and monitoring group.
4. Clearly identified management accountability under the National Parks Act.
5. Adequate staffing of our parks and reserves.
6. Management plans with clearly identified on-ground outcomes for management of ecological systems, and clear evaluation and monitoring programs to assess management effectiveness. This is no more than would be expected for any effective management process (and it was a key recommendation of "Conserving Australia", the 2007 Federal Inquiry into Australia's national parks and reserves).

7. High profile scientific advisory panels for the park system as a whole, and similar scientific panels, region by region, advising on park management in the context of adjacent land systems (see “D. Research and monitoring” below).
8. A comprehensive (and adequately resourced) research and monitoring capability (see “D. Research and monitoring” below).
9. A re-assessment of fire management in the State, as current zoning and other strategies were not developed in response to climate change imperatives. The recent series of alarmingly large fires, particularly the 2006/7 fires in Eastern Victoria, have lead to a knee-jerk re-interpretation of zoning (leading to ecologically unwise fuel reduction burns in zone three areas, and even burns in zone five areas which should not be burnt at all). We also now have a vast series, potentially 100s of kilometres, of hastily planned (and in some cases already constructed) broad fire-breaks throughout Victoria of questionable effectiveness.
10. Systematic and comprehensively monitoring of the effects of control burns on fuel reduction in different landscape types and different fire frequencies, and of ecosystem responses to all fire regimes, natural or induced.
11. Immediate development and implementation of strategies to control all weeds, and pest animals and pathogens that we currently have the capacity to control.

Parks Victoria clearly has the capacity to deal with many weed problems, and acts with some vigour and considerable success across the park system. But it is a clear failure of conservation reserve management capacity when PV are not addressing some big problems that could quite easily be dealt with, such as the removal of long-standing Radiata Pine infestations from Lower Glenelg National Park, Kinglake National Park, and many other conservation reserves.

And some programs that are resourced to a degree, such as the current effort using both contractors and volunteers to remove Grey Sallow Willow (*Salix cinerea*) from the Alpine National Park, are not progressing fast enough. Recent assessments of infestation levels in the Fainters area of the Alpine National Park are estimated, apparently, in the tens of thousands. This is clearly an issue that should be dealt with before the willows grow to a size when removal will cause additional impacts on alpine peatbeds. It is also a case that needs more effective cross-tenure management, given the extent of existing mature seed-bearing willows in creeks and streams adjacent to the park. Current cross-tenure programs in the Otways, piloted by DSE and Parks Victoria, offer hope as a model for future programs.

There are other issues that are compounded by unworkable legislative arrangements. The almost unhindered spread of tens of thousands of feral deer through rainforests and other natural areas of eastern Victoria’s national parks is a clear example of this. The recent Scientific Advisory Committee’s recommendation for the listing of “Reduction of biodiversity of native vegetation by Sambar” as a Potentially Threatening Process under the Flora and Fauna Guarantee Act, makes the listing of Sambar Deer as protected wildlife under the Wildlife Act somewhat ridiculous.

*The VNPA will extend this discussion of weed and pest reduction, in particular, following the impending release of Parks Victoria's second "State of the Parks Report".*

12. Strategic long-term research to identify a range of biological controls for weeds and feral animals. It is hard to imagine that Victoria's park managers would spend the next few hundred years wandering around equipped primarily with back pack weed sprays. And chemically, or physically, fighting large weed invasions in natural areas can sometimes do as much damage as the original threat. Currently, Victoria's investment in biological research for pest plants and animals is chiefly within Primary Industries Research Victoria (PIRVic), but their mandate is almost exclusively in the agricultural sphere. Very little research is taking place on plant, animal, invertebrate or pathogen threats to our natural areas. While this sort of research generally yields only long-term results, the increasing research capabilities within the countries of origin of many pest plants and animals allows increasing effectiveness for our research dollars. And there are growing possibilities of new fields of research into biological controls. This approach is one area where "a stitch in time can save nine", and it should receive serious attention from the White paper process.
13. Highly trained rapid response weed identification & eradication teams, regionally based across Victoria. While Parks Victoria has recently invested in a rapid response operation, greater capacity is needed. Teams across the state must be well-trained, operate across all and tenures (e.g. link with the similar teams working in agricultural), and have dedicated representation in the Herbarium, to allow rapid identification of new threats.

For alpine and sub-alpine species and systems in Victoria, the need for careful, well-considered and well-resourced management is particularly urgent. With minimum estimates of climate-induced altitudinal migration at around 6 metres per decade, this has very considerable implications for Victoria. Most of our alpine and sub-alpine areas, such as the southern Bogong High Plains, indeed almost all alpine systems other than the northern Bogong High Plains in the Alpine National Park, and also the Buffalo Plateau in Mount Buffalo National Park, are effectively frost induced grasslands and sphagnum peat beds and wetlands below "inverted tree lines". That is, they are already effectively below the tree-line, and only marginally support alpine plant and animal communities.

They cannot migrate upwards, so they will have to deal with increased temperatures, less snowfall, and drier summers where they are. They will also be faced with the invasion of Snow Gums and other plants, and the invasion of competing native animals and pest species, that their old climatic envelope excluded.

While we know something like this will happen, research identifying threats is limited. The ITEX (International Tundra Experiment) sites in the Alpine National Park are starting to produce indications of likely changes. Also, predictions of the rapid decline of the Silky Snow Daisy (*Celmisia sericophylla*), which can only be found along sheltered streams and below snow patches in Victoria's alps, have been made using the rough tool of Bioclim analysis, and threats to Mountain Pygmy Possum are well documented. They are indicative of a more widespread problem.

It is indeed very worrying that both Mount Buffalo and the Southern Bogong High Plains, possibly the two areas of Victoria most vulnerable to climate change, are currently undergoing reviews of visitor access without (as far as we know) clear input from the scientific community on the actions needed to protect natural systems there. Proposed visitor and infrastructure planning for both areas should be subject to a transparent, and broadly consultative process. Neither of their current park management plans deal in any realistic way with climate imperatives.

A word from Alec Costin, the “father” of Australia alpine ecology, is food for thought:

*“When I first started work in the Australian Alps in the 1940s there were few parks and much wilderness. Now there are many parks, but wilderness is fragmented by vehicle tracks and fire trails and these are being invaded by feral animals and weeds. Many forest areas are also being homogenised by frequent burning. Horses are being removed from wilderness areas as they should be, but are being replaced by bulldozers and four wheel drive vehicles, essential we are told, to protect park values. Tourist pressures are extending well beyond the development zones assigned to them. In Kosciusko National Park, for example, 100,000 visitations in 1967, mostly in the Kosciusko area itself, could be more or less controlled by 67 staff. The same number of staff now has to cope with more than three million visitors in 1987/88, with numbers increasing annually. It just can't be done.”*

Alec Costin in Good, R. Ed. 1989. *The Scientific Significance of the Australian Alps*. The Proceedings of the First Fenner Conference on the Environment. AALC. Canberra.

### **The funding imperative**

Essentially, managing biodiversity on public land is the responsibility of the public and therefore of its elected Government, and of the agencies appointed by Government. The case for increased funding is a clear one and, within the resources of a relatively prosperous community, a very achievable one. And if that the community is well-informed about the biodiversity predicament, as it should be, public acceptance of appropriate funding levels would follow.

A few quotes may clarify the funding imperative:

*“Victoria has no Grand Canyon, no Yellowstone, no Jasper, no Kreuger to show the visitor to these shores [but nothing] could give the United States, Canada or South Africa a Wilson’s Promontory, a Mount Buffalo, a Tarra Valley or a Wyperfeld.*

*Our parks and the unique living things they contain are the show windows of the Australian bush, [however] a short-sighted financial policy in regard to National Parks may very easily result in great deterioration and irreparable damage to what are national assets.”*

First National Parks Authority Annual Report, 1957.  
Crosbie Morrison, NPA Chairman.

*“...funding sufficient to meet the intent of current management plans for major national parks would exceed most Protection Agencies’ annual budgets. It is also considered that an increase in staffing and a commitment to supporting that staff is required to meet management plan actions. Generally staffing does not increase in response to a plan, or in response to community demands. Therefore plans only ever get implemented to a minor extent and become a wish list for best practice.”*

Australian Ranger Federation submission to the Senate inquiry into Australia’s National Parks, Conservation Reserves and Marine Protected areas – *Conserving Australia*. 2007.

*“It is seven times more cost effective to conserve intact native ecosystems rather than attempting to re-establish them after they have been cleared or significantly degraded.”*

*Directions for the Natural Reserve System,*  
Natural Resource Management Ministerial Council. 2005

## **C. Connectivity across the landscape**

Probably the most worrying (and also the most intriguing) issue with biodiversity and climate change is that of species and community migration.

Looking at the situation fairly simplistically, species and communities can be expected to migrate south or vertically, some more than others, to compensate for changing temperatures.

*“Global meta analyses documented significant range shifts averaging 6.1 km per decade towards the poles (or metres per decade upwards), and significant displacement of spring events by 2.3 decades per decade.”*

*Globally Coherent Fingerprint of Climate Impacts Across Natural Systems,*  
by C. Parmesan and G. Yohe. *Nature*, Vol 421, 2 Jan. 2003

For alpine and sub-alpine systems and species in Victoria, this is almost catastrophic, and cannot be resolved by connectivity. Resilience can only be assisted by carefully doing as much as we can to mitigate other threats, thereby reducing overall pressures on ecological systems.

Throughout most of Victoria, however, the situation is far more complex. As species are faced with increased temperatures, decreased rain and ground water, increased fire frequency and severity and changed season times etc, they will tend to move towards their preferred bioclimatic envelope – a place which matches the conditions that suit them. For some that might be the other side of the hill, or the edge of a stream, for others it might mean a very considerable migration to find appropriate soil types etc. The process will favour some species and communities and disadvantage others.

It is not the intention of this submission to come up with detailed recommendations here, other than to say we should do all we can to avoid any further clearing of native vegetation (including adopting range of schemes to support private landholders in this

regard). In addition, a comprehensive science-based strategy for connectivity across the landscape (including across State borders), building on the existing impressive range of largely community-based initiatives, is essential for the survival of biodiversity in Victoria. And that strategy must be acted on as soon as possible.

*“For Victoria, climate change will have significant impacts on protected areas and their management... it will be vital to understand clearly the dynamics of patches of remnant vegetation, and the need for appropriate linkages between protected areas.”*

*Victoria’s Flora and Fauna: Can it Survive the Greenhouse Effect?*  
VNPA 1991 Conference Proceedings. *Global Warming and Nature Conservation*,  
Peter Bridgewater, Director, Australian National Parks and Wildlife Service.

Further information on the need for strategic connectivity, and ways in which that might be achieved, can be found in the White Paper submission of the Victoria Naturally alliance, which is hosted by the VNPA, and of which VNPA is also an alliance member.

## **D. Research and monitoring**

The future of conservation management is a future of scientific, evidence-based actions.

This does not devalue the usefulness of local knowledge, or the often long-standing expertise of amateur field naturalists. Nor does it devalue the important knowledge and perspective of Indigenous traditional owners. Our data bank should include all of this information.

We live, however, in an altered natural landscape, and a landscape that will continue to change. We must:

- Use whatever knowledge and capacity the scientific and broader community has to manage natural systems to the best of our ability, now.
- Give the next generation (who are likely to be facing greater problems, if climate predictions are remotely accurate), the tools to act with greater wisdom than we can.

To do that, we need a comprehensive and adequately resourced research and monitoring capability across the landscape, addressing:

1. ecological integrity throughout the park system, and across natural systems statewide.
2. threatened species (some are currently monitored to varying degrees)
3. effects of climate change on species diversity
4. the extent of weed and vermin infestation
5. the effects of fire regimes, natural and imposed
6. the effectiveness of management actions etc.

Parks Victoria has been steadily moving in this direction, but we must move more quickly. Currently, P.V. has an excellent scientific advisory body, the “Environment Committee”, but any advice they give is currently tempered by budget imperatives. Specialist regional, or park specific, scientific advisory bodies would, if implemented,

have the additional capacity to give readily available local advice, allowing more informed adaptive management.

P.V. also operate partnership programs with a range of scientific bodies and research institutions, but this is also tempered by budget inadequacies. The process seems to be that Parks Victoria makes suggestions on areas of research it would find useful, and post-graduate research students then have the option of taking up one or other of those challenges.

What we need, in the predicament we are in, is a solid program of scientific research designed to give us the answers we need. And we need the funding arrangements to make that happen.

We also need a comprehensive monitoring program right across the landscape. Currently, even the legislated Reference Areas in national parks have, for the most part, no baseline data allowing them to serve a useful role as reference areas. And one program that has been done particularly thoroughly in the past, the extensive monitoring of the Mallee for the LCC Mallee study 20 years ago, has never been repeated, leaving that valuable database increasingly irrelevant.

If the White Paper only identifies the need for such a program, without actually articulating the strategy, we will be left with the possibility of yet another lame recommendation. It should be the job of this White Paper process to seek expert advice and clearly identify the extent of monitoring we require, right across the landscape, and outline a workable strategy for achieving this.

## **E. Community education**

During their terms of office, both the Federal and State Governments have spent hundreds of millions of dollars on advertising. But not one cent of this has gone towards educating the community about the predicament of our biodiversity – our greatest inheritance. We are not being told what the Government actually knows – that climate change will impact greatly on this inheritance.

It would greatly help the achievement of these aims if the Government would make a commitment to educating the public about the issues of biodiversity protection, and the need for reservation of areas. Calls for opposition to parks and reserves from some sections of the community are largely just filling an information vacuum that should not, and need not, exist.

The community has a right to know, and the White Paper process is a good opportunity for the Government to produce material outlining this predicament. The White Paper should also make clear recommendations on future programs for effective environmental education.

## **Other important issues**

This submission has concentrated on issues relating to State management of national parks and reserves. There are, however, a range of issues at the national level that affect conservation. Among them:

- National Reserve System funding must be radically increased.
- We must deal effectively at a national level with weed and pest animal invasion. (This was a key recommendation of the 2007 Senate Inquiry into Australia's national Parks and conservation reserves, *Conserving Australia*. The other recommendations of this report should also be examined in this State inquiry.)
- And last, but certainly not least, we must deal at a local, State, national and global level with carbon emissions.

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Attachments to this submission:

**Nature Conservation Review 2001**  
By Barry Trill and Christine Porter  
VNPA 2001

**Park Watch no. 229, June 2007**  
(VNPA quarterly magazine)  
Special park management edition

Note also:

Additional VNPA submission:  
**Marine and Coastal**

VNPA partnered submission:  
**Victoria Naturally alliance**

VNPA, June 2007  
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