

## **Summary**

### **Issue 1: NSW Scientific Committee determination to list herbivory and environmental damage caused by deer as a key threatening process**

The Threatened Species Conservation Act 1995 requires the Scientific Committee to ensure that the impact of any action affecting threatened species, populations and ecological communities is properly assessed [author's emphasis].

This submission presents evidence to show that the final determination to list '*herbivory and environmental damage caused by feral deer as a key threatening process*' based upon 13 findings which purportedly met the criteria for listing, was not properly assessed and, that the NSW Scientific Committee:

- Failed to comply with requirements of the Threatened Species Conservation Act 1995
- Failed to consult relevant agencies, specifically the Game Council of NSW
- Made fundamental errors in judgement and deviated from accepted scientific principles
- Made misleading and selective citation of references.

In support of the assertion that the Scientific Committee decision was not properly assessed, the Flora and Fauna Guarantee – Scientific Advisory Committee in Victoria recently concluded that there was insufficient scientific evidence to list '*degradation and loss of terrestrial habitat caused by feral deer*' as a potentially threatening process because none of the primary criteria had been satisfied.

### **Issue 2: Restriction of Access to National Parks in New South Wales**

The National Parks and Wildlife Act 1974 states the purpose of reserving land as a national park is to "... provide opportunities for public appreciation and inspiration and sustainable visitor use and enjoyment..." [author's emphasis].

The anti-hunting ideology of NSW National Parks and Wildlife Service (NPWS):

- discriminates against a minority group of NSW citizens (recreational hunters)
- prevents recreational hunters from participating in what Australian wildlife managers consider a valid pastime, and
- effectively dismisses recreational hunting from being considered by NPWS as a management option for the control of introduced animals in NSW national parks.

## **Introduction**

There is widespread and increasing recognition of the presence and impact of feral animals in Australia (West and Saunders 2003, McLeod 2004, House of Representatives Standing Committee 2005).

The management of introduced species is rated a high priority among Australasian wildlife managers who also believe that it is necessary and/or appropriate to manage, control and use wildlife for a variety of reasons (Miller and Jones 2005). The Miller and Jones survey also found:

- 79% of respondents disagreed or strongly disagreed with the statement '*hunting is morally wrong because it violates the right of an individual animal to exist*';
- 74% of respondents agreed with the statement '*it is possible to view wildlife with reverence and still participate in hunting*' (Miller and Jones 2005).

The National Parks and Wildlife Act 1974 confirms the purpose reserving land as a national park is to: "...*identify, protect and conserve areas containing outstanding or representative ecosystems, natural or cultural features or landscapes or phenomena that provide opportunities for public appreciation and inspiration and sustainable visitor use and enjoyment...*" (section 30E (1)). Furthermore, the Act requires that national parks be managed:

- *for the protection of the ecological integrity of one or more ecosystems for present and future generations (section 30E 2 (c)),*
- *the promotion of public appreciation and understanding of the national park's natural and cultural value (section 30E 2 (d)),*
- *provision for sustainable visitor use and enjoyment that is compatible with the conservation of the national park's natural and cultural values (section 30E 2 (e)).*

The *Threatened Species Conservation Act 1995* requires that the impact of any action affecting threatened species, populations and ecological communities is properly assessed (author's emphasis) (section 3(e), and to encourage the conservation of threatened species, populations and ecological communities by the adoption of measures involving co-operative management [author's emphasis] (section 3 (f)). Under the Act, the NSW Scientific Committee is to determine which threatening processes are to be listed as key threatening processes.

In December 2004 the NSW Scientific Committee made a final determination to list 'herbivory and environmental damage caused by feral deer' as a key threatening process<sup>1</sup> based upon 13 findings which purportedly met the criteria for listing.

This submission challenges the validity of the Scientific Committee determination and questions the performance of NPWS in upholding their obligations for the management of national parks in NSW by excluding access by minority groups (recreational hunters) to participate in a valid sustainable use activity.

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<sup>1</sup> Herbivory and environmental degradation caused by feral deer - key threatening process declaration  
NSW Scientific Committee - final determination. [www.nationalparks.nsw.gov.au/npws.nsf/Content/feral\\_deer\\_ktp](http://www.nationalparks.nsw.gov.au/npws.nsf/Content/feral_deer_ktp)

**Issue 1. NSW Scientific Committee determination to list herbivory and environmental damage caused by deer as a key threatening process**

The following comments and criticisms were made as part of my submission to the NSW Scientific Committee preliminary determination on deer (Appendix 1), the response to my submission by the Scientific Committee (Appendix 2) and my reply to the final determination (Appendix 3).

**(a) Failure to Comply with Requirements of the Threatened Species Conservation Act 1995**

Under the provisions of section 23 of the Act in force at the time the NSW Scientific Committee was required to make a determination within 6 months after the closing date for making submissions (*Threatened Species Conservation Act 1995, section 23(2)*).

The preliminary determination by the Scientific Committee was on public exhibition from 24 October 2003 to 5 December 2003 which was later extended to 30 January 2004. The final determination was gazetted on 17 December 2004. The Scientific Committee therefore failed to meet the required 6 month deadline for making a determination, ie before 30 July 2004.

While subsequent amendments to the Act enabled the Minister to extend the period of 6 months to a maximum period of 2 years (*section 23, Threatened Species Legislation Amendment Act 2004 No 88; assent date 30 November 2004*) these did not come into force until after the prevailing 6 month deadline for a determination.

**(b) Failure to Consult Relevant Agencies**

From assent of the *Game and Feral Animal Control Act (2002)* on 10 July 2002 wild deer in NSW became a recognized "game animal" and legislative and management responsibility for wild deer rested with the NSW Game Council. Because wild deer can, in specific circumstances and locations be a pest (just as koalas and kangaroos can be) it was the duty of the Scientific Committee, under of the *Threatened Species Act 1995 section 128 (3)* to seek assistance and advice from the Game Council of NSW.

However, no such request for data or advice was ever made to the Game Council (*pers. comm.* Ross McKinney, then CEO of the Game Council of NSW). That the Scientific Committee overlooked or chose to ignore the authority of the Game Council for wild deer, granted with the passage of the Game and Feral Animal Control Act some 2 years earlier, indicates serious negligence.

**Confidential Excerpt 1:**

**(c) Fundamental Errors in Judgement and Deviation from Scientific Principles**

The Scientific Committee preliminary determination correctly highlighted that the impacts of, and interactions between deer and indigenous biota in Australia have been poorly studied. The Scientific Committee attempted to redress the knowledge gap by citing numerous overseas works purported to support the “findings” behind the final determination.

However, the complex interactions between species and very limited understanding of interactions involving feral animals, our uniquely Australian flora and fauna, and livestock (English and Chapple 2002) rule out these overseas studies for consideration. These studies were not relevant and contributed little to advance the understanding of the ecology of wild deer in NSW.

As I indicated in my submission to the Scientific Committee (Appendix 1) it was beyond any reasonable interpretation for the Scientific Committee to conclude that the overseas studies were in any way applicable in NSW and supported a “common generalization” that increasing numbers of deer may strongly modify the abundances of particular species and overall composition in a wide variety of plant communities. The lack of accurate information on the ecology of wild deer in NSW cannot be compensated for by any number of irrelevant overseas publications.

The Scientific Committee's extreme interpretation of these (irrelevant) data perpetuate the common misconception about pest animal impact: the more pest animals, the more the impact (Department of Agriculture Forestry and Fisheries) and is not consistent with the principles of best practice: managing the *actual* rather than the *perceived* impacts, and focusing on the impacts rather than the pests themselves (Braysher 2002, Hart 2002).

The Scientific Committee's findings and final determination lack credibility, are without a sound scientific basis and suggest social or political interference, motivational bias, or expert overconfidence (Burgman 2004).

Professional wildlife managers have also questioned the validity and motivation of the Scientific Committee's determination and suggest the decision based on the *perceived* risk of wild deer needlessly misdirects limited funds into the management of species of uncertain pest status (Parker and English 2004).

Similarly, Burgman (2002) points out that a focus on species that are currently at risk may be detrimental if the costs of maintaining those species is too high and impinge on opportunities to protect other flora. This point is especially pertinent considering Burgman's findings that:

- most of the information associated with changes in threatened species lists may be ‘noise’
- the process of creating lists is surrounded by an atmosphere of immunity from criticism
- threatened species lists are subject to many biases, and
- threatened species lists strongly reflect sampling effort and the interests of the scientists and funding agencies.

Burgman (2002) concludes that the use of lists of threatened plant species is unlikely to provide a great deal of useful information for reporting on impacts, or for setting priorities for research or protection.

Importantly, in contrast to the NSW Scientific Committee determination, the Flora and Fauna Guarantee - Scientific Advisory Committee in Victoria concluded that there was insufficient scientific evidence to list 'degradation and loss of terrestrial habitat caused by feral deer' as a potentially threatening process because none of the primary criteria were satisfied (Flora and Fauna Guarantee - Scientific Advisory Committee 2005).

#### **(d) Misleading and Selective Citation of References**

The Scientific Committee's determination cites the work of Hamilton (1981) as evidence that Rusa deer have been shown to alter the structure, species abundance and composition of grassland communities (Appendix 2). Remarkably however, the 2002 Deer Management Plan for Royal National Park stated that this information was then dated and of limited value (NPWS 2002).

The duplicity in citing the work Hamilton (1981) as supporting the final determination yet previously dismissing this work is regrettable and inexcusable.

In my reply to the Scientific Committee's response I provided details of where the work of Hamilton (1981) had been 'misinterpreted' (Appendix 3).

### **Issue 2: Restriction of Access to National Parks in New South Wales**

The National Parks and Wildlife Act 1974 states the purpose of reserving land as a national park is to "... provide opportunities for public appreciation and inspiration and sustainable visitor use and enjoyment..." [author's emphasis].

Clearly however the NSW National Parks and Wildlife Service has an anti-hunting ideology which is in stark contrast to other states where hunting in national parks is actively encouraged and successfully undertaken (eg. Victoria).

The effectiveness of NPWS pest animal management programs has been reviewed and areas for improvement identified (English and Chappel 2002). More recently, a national audit of feral animal control programs in Australia found that less than 1% of the feral animal control actions have a design that can yield reliable inferences about the consequences of the action, and more than 75% of all control actions did not monitor the changes in the abundance of the pest animal (Reddiex 2005).

The following NPWS media release further confirms the organization has ongoing difficulty in managing introduced animals within national parks in NSW.

#### **NPWS commits to a further three years of deer control in Royal National Park** **Media release - Tuesday, 4 October 2005**

*"...NPWS Central Director Bob Conroy acknowledged that the program, while helpful, is not keeping pace with the natural regeneration of the deer population. "Deer control is the responsibility of relevant land managers such as councils, the Roads and Traffic Authority and the NPWS," he said. "As with any other feral animal, deer control programs worked best when the responsible land managers worked together in cooperative, coordinated programs." (NPWS 2005).*

Recreational hunters can provide a very cost-effective (nil cost) option to reduce the numbers and impact of introduced animals in national parks, and contrary to popular opinion recreational hunting is a remarkably safe sport and much more so than recreational fishing.

Recreational hunting has recently been permitted in declared state forests in NSW; importantly the numbers of animals harvested and culled by hunters will be monitored by the Game Council of NSW. This program could be expanded provide a nil-cost option to assist with the management of introduced animals in NSW national parks. There are approx. 200,000 licensed hunters in NSW (Firearms Regulation 2005) that could be utilized.

### **Recommendations**

- 1. That NPWS Executive and Scientific Committee recognise and adopt a policy similar to that of the Australasian Wildlife Management Society policy that supports the concept of achieving habitat and species conservation goals through the sustainable use of wildlife<sup>2</sup>.**
- 2. That NPWS exercise their 'memoranda of understanding' policy<sup>3</sup> and work in an open and co-operative manner with the Game Council of NSW to improve the management of introduced animal species in NSW national parks.**
- 3. That NPWS work with the Game Council of NSW to remove legal and administrative impediments to the adoption of the numerous recommendations of the House of Representatives Standing Committee that would support the implementation conservation hunting programs (with appropriate safeguards) in NSW national parks.**

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<sup>2</sup> Australasian Wildlife Management Society (AWMS):  
<http://www.awms.org.nz/positionstatements/sustainablecommercialuse.html>

<sup>3</sup> NPWS Memoranda of Understanding Policy.  
[www.nationalparks.nsw.gov.au/npws.nsf/Content/Memoranda+of+understanding+policy](http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Memoranda+of+understanding+policy)

**References:**

**Braysher, M. and Saunders, G. 2002.** Best Practice Pest Animal Management. NSW Agriculture, Agnote DAI-279, September 2002.

**Burgman, M. A. 2002.** Are threatened plant species actually at risk? Australian Journal of Botany 50: 1-13.

**Burgman, M. 2004.** Expert frailties in conservation risk assessment and listing decisions. Pp 20-29 in Threatened Species Legislation: is it just an Act? edited by P. Hutchings, D. Lunney and C. Dickman. Royal Zoological Society of NSW, Mosman, NSW.

**Department of Agriculture Fisheries and Forestry (Affa) .** Myths and Misconceptions about Pest Animal Management. Commonwealth of Australia (<http://www.affa.gov.au>)

**English, A. W. and Chapple, R.S. 2002.** A Report on the Management of Feral Animals by the New South Wales National Parks and Wildlife Service, Hurstville NSW July 2002.

**Firearms Regulation 2005.** Regulatory Impact Statement, Subordinate Legislation Act 1989

**Flora and Fauna Guarantee - Scientific Advisory Committee 2005.** Final recommendation on a nomination for listing degradation and loss of terrestrial habitats caused by feral deer (potentially threatening process).

**Hamilton, CA. 1981.** Rusa Deer in The Royal National Park: Diet, Dietary Overlap with Wallabia Bicolor, Influence on the Vegetation, Distribution and Movements. Master of Science thesis, University of Sydney, April 1981.

**Hart, Q. 2002.** Science for decision makers: Managing pest animals in Australia. Bureau of Rural Sciences, Department of Agriculture, Fisheries and Forestry, Australia, November 2002.

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**Miller, K.K. and Jones, D.N. 2005.** Wildlife management in Australasia: perceptions of objectives and priorities. Wildlife Research 32: 265-272.

**NSW National Parks and Wildlife Service 2002.** Deer Management Plan for Royal National Park and NPWS Reserves in the Sydney South Region. NSW National Parks and Wildlife Service and Royal National Park Deer Working Group, Hurstville NSW, February 2002.

**NPWS 2005.** NPWS commits to a further three years of deer control in Royal National Park Media release - Tuesday, 4 October 2005.  
[http://www3.environment.nsw.gov.au/npws.nsf/Content/dec\\_media\\_051004\\_01](http://www3.environment.nsw.gov.au/npws.nsf/Content/dec_media_051004_01)

**Parker, B. and English, A. 2004.** Justifiable invocation of the precautionary principle or the product of paradigm and perception: 21<sup>st</sup> century deer management in southeast Australia. Proceedings of the 17<sup>th</sup> Scientific Meeting and AGM of the Australasian Wildlife Management Society, December 2004.

**Reddiex B, Forsyth D, McDonald-Madden E, et al. 2004.** Benefits of feral animal control in Australia – how reliable is our current knowledge?  
Australasian Wildlife Management Society 17th Scientific Meeting and AGM

**Shields, J.M. 2004.** Threatened species legislation and threatened species recovery: does the former lead to the latter? Pp 135-144 in Threatened Species Legislation: is it just an Act? edited by P. Hutchings, D. Lunney and C. Dickman. Royal Zoological Society of NSW, Mosman, NSW.

**West, P. and Saunders, G. 2003.** Pest Animal Survey 2002. NSW Agriculture, Vertebrate Pest Research Unit, September 2003.

## **Appendices**

- Appendix 1** S. Larsson submission to NPWS Scientific Committee, 30 January 2004  
**Appendix 2** NPWS Scientific Committee reply to S. Larsson, 23 December 2004  
**Appendix 3** S. Larsson response to NPWS Scientific Committee, 27 January 2005