

### The rapid expansion of feral deer in Victoria is one of the most serious pest animal invasions the state has seen.

An accurate estimate of the number of deer in Victoria is difficult, if not impossible, but the scale of the invasion rivals the spread of rabbits in the mid-20th century.

The Game Management Authority's claim of over 100,000 deer now taken annually by amateur hunters appears to support estimates of up to one million deer in the state. We are advised that the population of deer in Victoria could be increasing by 400,000 annually.

Sambar Deer, the main invaders, dominate in the east of the state but also now appear along the Murray, the Otways, even in Wilsons Promontory National Park. Other Victorian deer include Red (mainly in the Grampians), Hog (the Prom and east coast), Fallow (farm escapes in many places), Chital and Rusa.

The situation is out of control.

- Environmental impacts are considerable, widespread and growing, and affect the majority of the ecosystems in the state. Victoria's most loved National Parks such as the Grampians, Wilsons Promontory and the Alpine National Park are suffering increasing damage. Community-based revegetation and rehabilitation programs across Victoria are also suffering, many being trashed by deer after years of volunteer labour.
- · Road safety issues are a growing concern.
- Agricultural impacts are increasingly a concern, with deer invasions now common on farms across the state.
- Deer are also invading private homes in peri-urban areas.



Sambar Deer in wallow, Bogong High Plains, Alpine National Park. Alpine peat beds are protected under Victoria's FFG Act and the federal EPBC Act. Photo: Parks Victoria



Deer/car collision, Princes Highway, east Gippsland. Photo: Tom Crook



Red Deer invading farmland on the edge of Grampians National Park. Deer invasions are a common experience from the Buckland Valley to Warrandyte and beyond. Photo: VNPA



Sambar stag in an Eltham front garden. Photo: Manningham Shire Council

#### VICTORIA'S DEER MANAGEMENT STRATEGY MUST OFFER REAL SOLUTIONS

Victoria's Biodiversity Implementation Framework (2018) makes it clear that the aim of the deer management strategy is to "maintain sustainable hunting opportunities while reducing the impact of deer on biodiversity on all land tenures of the state", see the table below.

#### Legislation

Deer management programs in Victoria currently show little recognition of state and federal environmental law, especially Victoria's National Parks (NP) Act, the Flora and Fauna Guarantee (FFG) Act, and the federal Environment Protection and Biodiversity Conservation (EPBC) Act. It should be made clear that the following Acts, and an International Convention, are the overarching, compelling 'principles' on which the development of a deer strategy is based:

a) The International Convention on Biological Diversity, signed in 1992 and ratified in 1993,

obliges the Federal Government to (among other things) "Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species", in national parks.

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- b) The Federal EPBC Act lists a number of nationally endangered or critically endangered communities and species affected by deer, such as: the Alpine Sphagnum Bogs and Associated Fens ecological community (which includes seven of Victoria's alpine Ecological Vegetation Classes); Littoral Rainforest and Coastal Vine Thickets of Eastern Australia; Silurian Limestone Pomaderris Shrubland of the South East Corner and Australian Alps Bioregions; and White Box Yellow Box Blakely's Red Gum Grassy Woodland, among others.
- c) Victoria's National Parks (NP) Act unambiguously requires the government to 'exterminate or control exotic fauna', and to 'have regard to all classes of management actions that may be implemented for the purposes of maintaining and improving the ecological function' of national and state parks. Importantly, the NP Act protects all flora and fauna, not just species on endangered lists.
- d) In 2007, Sambar Deer were listed as a 'Potentially threatening Process' under Victoria's Flora and

#### Priority 17 - Deliver excellence in management of all public land and waters

17.1 – Reduce the impact of key invasive species such as feral cats, deer, and wild dogs and new or emerging environmental weeds according to the principles set out in the Invasive Plants and Animals Policy Framework using Strategic Management Prospects as guidance. A first step will be the develop a deer management strategy that sets a strategic plan to maintain sustainable hunting opportunities while reducing the impact of deer on biodiversity on all land tenures of the state

Goal



Victoria's natural environment is healthy

| Theme     | Mobilising our Ecosystem Engineers   |
|-----------|--|
| Lead      | Department of Environment, Land, Water and Planning and Department of<br>Economic Development, Jobs, Transport and Resources |
| Partners  | Parks Victoria, Game Management Authority, Trust for Nature, Interested<br>Victorian Traditional Owner Groups                |
| Timeframe | Medium (2-4 years)   |
| Status    | Planned  |

From Victoria's Biodiversity Implementation Framework (2018).

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Sambar grazing and trampling an FFG listed threatened Snowpatch community, Bogong High Plains, Alpine National Park. Photo Zac Walker, La Trobe University



Deer have browsed everything within reach in this Littoral Rainforest, Lake Tyers Coastal Park, listed as critically endangered under the EPBC Act. Photo: Tom Crook, Rainforest Network



Yellowwood trees killed by antler rubbing in Littoral Rainforest at Lake Bunga, East Gippsland. Littoral Rainforest is listed as critically endangered under the EPBC Act, and Yellowwood is listed as rare under the FFG Act. Photo: Tom Crook, Rainforest network



Sambar wallow in the Hollands Knob Reference Area, Bogong High Plains, Alpine National Park. Photo: Zac Walker, La Trobe University

Fauna Guarantee (FFG) Act. That listing cites 12 state or federally listed ecological communities being damaged by Sambar, from rainforest communities to alpine peatbeds and fens, as well as 13 rare or threatened native plants. (Since that 2007 listing our knowledge of plants and animals threatened by Sambar has grown considerably with around 1,000 species now seriously affected by deer.)

e) Victoria's Wildlife Act offers deer a level of protection and prescribes seasons, conditions

and bag limits for recreational hunting. All deer except Hog Deer are now 'unprotected' on private property. The Act also allows for an 'Authority to Control Wildlife' permit if deer are causing damage on public land.

What can and should change is the extraordinary level of red tape around approvals for an Authority to Control Wildlife permit for land managers, including National and State Park managers, periurban councils etc. The Authority to Control Wildlife

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An attempt to protect an antler-rubbed mature Sassafras tree, Monbulk Creek rainforest. Photo: VNPA

should be delegated to land managers with legislated obligations to protect biodiversity, and should be automatically applicable for control of deer on the land they are responsible for. Permits should not be subject to time limits or be restricted to particular individuals, or require onerous evidence of damage to threatened species.

Both the Wildlife Act and the Catchment and Land Protection (CALP) Act should be altered to recognise all deer as pest species and simultaneously acknowledge their status as game species, able to be hunted in appropriate circumstances. Fixing the Wildlife and CALP Acts will avoid confusion, however the strength of current environmental law means we should not need to wait for legislation changes before taking serious action on deer by removing red tape for land managers.

#### **CLIMATE CHANGE**

Any strategy to manage deer should take account of climate stresses on native ecosystems. Importantly, one of the best ways to help the resilience of native ecosystems and species in the face of climate impacts, is to be more vigilant in controlling other threats. Deer are, in anyone's book, a significant 'other threat'.

See Dunlop and Brown. *Implications of Climate Change for Australia's National Reserve System.* 2008. P. 127 etc. https://www.environment.gov.au/system/files/resources/917bb661-b626-44bb-bd52-325645ae7c49/files/nrs-report.pdf

#### OBJECTIVE ASSESSMENT OF A RANGE OF STRATEGIC CONTROL OPTIONS

The strategy should have separate chapters looking at all current and future management tools. It should not be largely based on the (clearly limited) capacity for control by amateur hunters.

- There should be an assessment of the six different species of deer in Victoria, their distribution, potential impact and appropriate methods of control for each.
- There should be a clear assessment of the current and potential capacity for action by professional pest controllers, including through aerial shooting.
- Assessments should be made of a range of other control methods, such as genetic and biological controls, targeted baiting, re-introduction of native predators etc.

### OPTIONS FOR CONTROL BY AMATEUR HUNTERS

Parks Victoria has been trialling strategic deer management programs using accredited amateur hunters. While the program appears to have its advantages, any limits to Parks Victoria's capacity to roll the program out across the state, especially to remote areas, should be made clear.

Possibilities for changing the customary objectives

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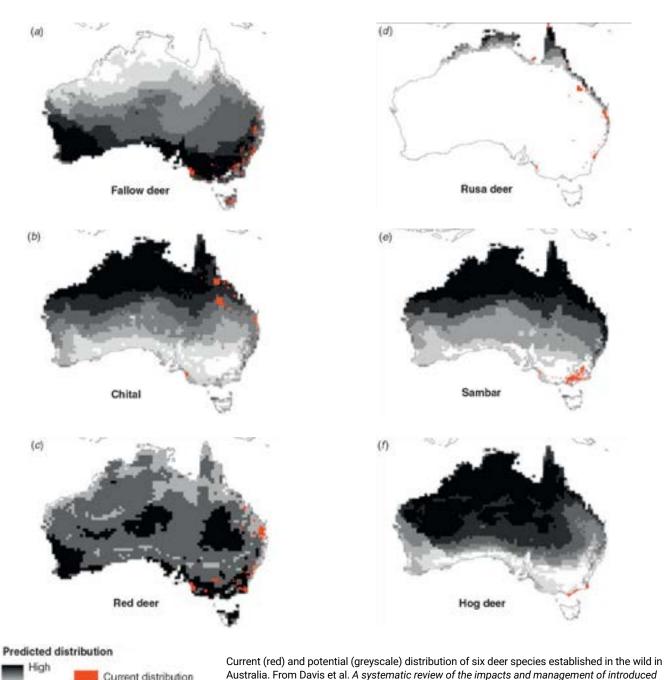
of amateur hunting, such as encouraging the targeting of females rather than stags, should be included and the probable effectiveness of such policies assessed. Other options that might increase the effectiveness of amateur hunting, such as the removal of bag limits for all species should also be implemented.

There should be no expansion of amateur hunting into national and state parks, to protect the safety of park visitors, and the quality of their experience.

#### **FEDERAL ISSUES**

Deer species will spread across the continent, possibly quite quickly given current population levels. It will be an invasion rivalling cane toads in its seriousness. Engagement by the federal government and other states subject to future deer invasion, is necessary and inevitable. Any inadequate Victorian strategy will look very weak in the face of future threats to the nation.

See predicted deer distribution maps below:



Current distribution

deer (family Cervidae) in Australia CSIRO 2016. http://www.publish.csiro.au/wr/wr16148

RESEARCH

It is highly unlikely that deer will be brought under control without employing new controls. Advantage should be taken of the many research bodies that have the capacity to engage in research into novel, deer control options. Appropriate and effective funding should come from both the Victorian and federal governments, and support from other currently affected jurisdictions, such as NSW, the ACT and Tasmania, should be sought.

Research options should include:

- Targeted baiting
- · Biological controls
- Genetic controls
- · Pheromones and other deterrents
- Any other potentially useful control options, such as the re-introduction of native predators.

Recommendation 11 (and, oddly, also Rec 31) from the 2017 Victorian Parliamentary (ENRC) Inquiry into the *Control of Invasive Animals on Crown Land* asks the Victorian Government to seek federal assistance in researching control methods:

- RECOMMENDATION 11: That the State
  Government raise, during a Council of Australian
  Governments forum (or other inter-governmental
  meeting), the need for urgent funding to research
  methods and techniques to control deer that could
  be practically implemented in Victoria.
- RECOMMENDATION 31: That the Government raise the issue of research into controlling deer with the Council of Australian Governments and request the Federal Government initiate comprehensive research into control methods.

#### **ZONING**

The Victorian community has already established prime zones where protection of nature is the overriding objective, and these have been in place as long ago as the 1890s: national parks. National parks are now recognised internationally as areas where protection of biodiversity is critical, and other activities should be subservient to that aim. Under Victoria's National Parks Act, both national and state parks have the same high level of protection. National and state parks should therefore be clearly acknowledged as (Environmental) Asset Protection

Zones in the strategy, where maximum protection of their ecological 'asset' from damage by deer is the overriding objective.

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Other important areas requiring Asset Protection status include the range of smaller conservation reserves, and threatened species and vegetation communities listed under the EPBC or FFG Act. These areas would include, for example, all rainforest communities, alpine regions, and areas where other threatened ecological vegetation classes are impacted by deer. This simply aligns the strategy with legislation.

Social and economic assets such as declared water catchments and peri-urban areas also need dedicated asset protection management. Importantly, protection of peri-urban areas (and many other places) will require management of surrounding areas acting as deer feeder/recruitment zones.

#### PROTECTING HUNTING

The draft strategy outline has been largely framed in the context of protecting the 'hunting experience', but hunting is not remotely threatened. Any mention of protecting a 'quality' hunting experience should articulate precisely what that means (e.g. some experienced hunters have claimed that an overabundance of deer reduces the 'quality' of the hunting experience, as little skill is required).

#### **TECHNICAL ADVISORY GROUP**

Given the significant and complex range of impacts deer are having on Victoria's biodiversity, there should be a strong representation of biologists and ecologists on the Deer Management Strategy's Technical Advisory Group.

#### **Further information**

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