

Submission to the review of the Nature Conservation Act 1980.

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Standing.

I am ecologist at the ANU with 20 years of experience in studying conservation biology. Recent research has led me to examine the literature surrounding conservation of grassy-box woodlands, introduced species, and climate change. I have a strong research record in the fields of habitat loss and fragmentation. I am also an ACT resident, and undertake volunteer work with the Friends of the Pinnacle, as we attempt to improve the prospects of biodiversity in grassy box-gum woodlands of the Molonglo Valley.

My comments are structured according to the order of presentation in the November 2010 discussion paper, and numbering refers to numbering in that document. However, I begin with a new and pressing issue that needs urgent cross-government attention.

A critical advance to remove a perverse barrier to improved nature conservation and improved protection of houses and lives from unplanned fire.

A key weakness linked to the NCA that inhibits improved biodiversity conservation is the absence of a capacity to undertake tradeoffs in fire protection measures. Frequent fuel reduction burning is undertaken in nature reserves, presumably under the Emergencies Act 2004, or the Bushfires act 1936, but this very frequent burning has substantial impacts on the biodiversity within nature reserves. Such impacts are clearly acknowledged in the ACT fire plan. The problem is that fire management actions that are most effective at protecting houses and lives take place within a few tens of meters of the houses themselves. Recent analyses by the Fenner School of Environment and Society at ANU of the 2009 Victorian fires indicate that the most important factors associated with house loss were the presence of vegetation within 40m of houses. An important win-win approach to fire management and biodiversity conservation would be to enable increased fire management activities within a few tens of meters of houses (40m) to be undertaken as an alternative to the common practice of burning nature reserves. This would increase property protection and remove the threat that frequent fire poses to biodiversity in nature reserves. The legislation needs to be amended in a way that removes the requirement of park managers and fire services to burn reserves when alternative actions near to houses have been implemented.

Such alternative actions are:

1. Enforce removal of shrubs and trees that are within 40m of houses, where houses are in a high fire risk area and are adjacent to a nature reserve where high fire frequency would compromise biodiversity values.

2. Subsidise sprinkler systems and other home improvements that reduce the risk of embers setting fire to houses
3. Establish community fire brigades with appropriate equipment

There may be a range of creative legislative ways to enable this trade off to take place, however perhaps a clause in the NCA that is deemed superior to other acts may be one rapid way to implement this approach.

2.2. No net loss.

Cross-border offsetting is a highly offensive idea. Biodiversity in the “Bush Capitol” is already extremely compromised; we want our biodiversity to continue to be within the ACT, improving our quality of life, and not sold off for possible improvement elsewhere. Offsetting must be an absolute last resort, and in my opinion must take place only within the ACT.

7.1 Objects.

The current wording of “reducing the degree of landscape fragmentation...” is certain to endorse increased habitat loss. Measures of habitat fragmentation often consider edge to area ratio. So by clearing any linear projections and bumps on a remnant, habitat fragmentation could be reduced, but biodiversity conservation would likely be compromised. The wording of the object must explicitly exclude this possibility. Wording like: “reducing the degree of landscape fragmentation by habitat restoration and not by habitat clearing...” would be more appropriate.

8.2,8.3. FFC, NRMAC.

One committee with the greatest expertise in biodiversity conservation is all that is needed. Disband the NRMAC, expand the FFC.

8.4. Mechanisms to seek community input.

A formal body could be a good idea, although there should at least be recognition of important groups who are routinely invited to comment on proposals that impinge on their biodiversity interests.

9.1. Nature Conservation Strategy

The NCS needs a formal mechanism and timeframe for reviews.

11.3. Killing native animals

Destroying habitat leads to the death of native animals. Destruction of known habitat should be sufficient evidence for prosecution.

11.4. Invertebrates.

Invertebrate collection should require a licence.

12.1 Firewood collecting

Firewood collecting is a threatening process for a broad range of fauna. Infringement notices should be issued on the spot. Warning signs should be routinely pasted on reserve noticeboards and main entrances to reserves.

12.2. Taking native weeds.

This is a complex area due to the likely effects of climate change. It is quite likely that plant and animal species will change their range under climate change, with new species arriving in the ACT of their own accord. Any definition of native plants will therefore need to allow for species that have expanded their range into the ACT in response to climate change or other global change factors.

13. Prohibited and controlled organisms.

The provision for the Conservator to prevent possession or dissemination of potentially invasive species is a critically important capacity under the NCA. The powers here should be extended and supported by new staffing and enforcement capacity. Invasive species are as large a threat to biodiversity as native vegetation clearing; evidenced by the decline of native plants and animals from grassy box woodlands that are heavily infested with exotic plants, the decline of freshwater fish and frogs in the face of introduced predators such as *Gambusia* and trout, and the national decline of small and medium sized mammals due to introduced predators.

Most critical in this regard is the prevention of new invasive species arriving. This is well known as the cheapest and most effective means of limiting the impacts of invasive species. The conservator must have the power to eliminate potential threats in the ACT before they escape into the wild. Of greatest importance here, are garden plants that already grow in our suburbs, and importation and inevitable escape or release of exotic fish and other pets. The Conservator needs power and resources to discover which species pose substantial threats to native ecosystems, and then to ban their importation and enforce the removal of such plants from Canberra gardens. This minor imposition on private interests will have enormous positive implications for conserving our shared natural wealth in the long term.

14. Similarly, the conservator must have legal powers to enforce land management actions that conserve the ACT's natural communities. Leaseholders may be compensated if the ordered actions are beyond the accepted duty of care. For example, a landholder may be ordered to eliminate declared invasive plants and may not seek compensation because control of weeds falls within a duty of care.

15.1.1 Making vehicle owners liable unless otherwise established is sensible

15.1.2. Hunting without a licence should be an offence.

15.1.3 Species with the potential to become invasive should not be permitted in reserves; no licencing facility should be available. Licencing should be available for species not likely to become invasive.

15.1.6 It would be appropriate for the act to define wilderness, and to specify particular actions that should not be undertaken within declared wilderness areas. Inappropriate activities would include building new roads, fire trails or clearings; harvesting native products, fire management that compromised biodiversity conservation.

15.1.7 The criteria for serious harm cannot be based on a minimum area damaged, because some areas of important native grassland, for example, are very small. A proportion of an area, or a minimum area, whatever is the smallest would be a better rule (say 1% or 0.25ha, whichever is smaller). Further criteria need to include release of non-native species and dumping of chemicals onto land or in waterways. These need not include a minimum area affected. Release of non-native species with the potential to become invasive or with the potential to inadvertently introduce new diseases are clearly acts capable of causing serious harm.

18.2 Licencing fees.

An important objective of the Nature Conservation Act should be to encourage a greater appreciation among ACT residents of native fauna through pet ownership. Fees should be scaled to encourage ownership of native animals that either occur naturally in the ACT, or have recently become extinct. Particularly, fees should encourage keeping of animals with the potential to displace exotic animals from suburbia (ie: dog, cat, exotic fish substitutes). This should be regarded as an important service of the ACT government and should not be managed on a cost-recovery basis. Fees should be high for keeping exotic species, or Australian species that are not native to our region. South Australia has progressive laws relating to keeping native animals, with substantial benefits as families choose to keep and learn about native fauna. Declaring all wildlife the property of the crown, as in WA (section 20.1) may be inimical to improving relationships of Canberrans with wildlife.