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Submission

In response to

Inquiry into the wild fallow deer population in Tasmania

Prepared by

Bush Heritage Australia

30th June 2016

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Submitted to

Legislative Council Government Administration Committee A

Inquiry Secretary

Legislative Council

Parliament House

HOBART TAS 7000

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30 June 2016

Ms Jenny Mannering
Inquiry Secretary
Legislative Council
Parliament House
HOBART TAS 7000

Dear Ms Jenny Mannering

Bush Heritage Australia submission to the Legislative Council Government Administration Committee 'A': Inquiry into the wild fallow deer population in Tasmania.

Thank you for the opportunity to make a submission to the **Inquiry into the wild fallow deer population in Tasmania.**

This Inquiry presents a necessary opportunity to investigate and identify the environmental and economic impacts of fallow deer on public and private land. It provides an opportunity to review and develop solutions to reduce agreed impacts and to manage the population in ways unlike those of other states. We thank you for the opportunity to contribute to this inquiry and any further investigations as required.

Bush Heritage is a national not for profit organisation, protecting millions of hectares of ecologically important land for the benefit of nature and all Australians. Enabled by the generosity of our supporters, we own and manage private conservation reserves throughout Australia, and partner with other landholders to support conservation management on their properties. Bush Heritage takes a collaborative approach to land management and biodiversity protection, engaging and working with others on the protection of conservation values at a landscape scale. Using sound science, we manage the land to restore ecosystems to health and create the right conditions for native species to thrive.

While operating nationally, Bush Heritage Australia has an interest, a stake and an influence in the protection of our native species and natural landscapes in Tasmania. In Tasmania, Bush Heritage owns 287 hectares of land in the Liffey Valley and 128 hectares on the East Coast. We are also a key partner of the 'Midlandscapes' program along with the Tasmanian Land Conservancy, Greening Australia and the Department of Primary Industry, Parks, Water and Environment. As part of this program, Bush Heritage Australia and the Tasmanian Land Conservancy partner in the Midlands Conservation Fund (MCF). The MCF offers stewardship agreements to farmers in the Midlands to help them manage their land for conservation.

Bush Heritage has extensive experience in managing introduced species in the Australian landscape and monitoring the impacts arising from those species. Two species of deer in particular (Sambar and Fallow), have shown remarkable growth in populations in Tasmania (in the case of fallow) and on the mainland. The increase in deer populations could be described as moving from being elusive or in background levels to a pest for landholders where real lasting damge is occuring to farms and to protected lands. Through our management of overabundant feral animal populations, Bush Heritge has developed and continues to maintain strong relationships with the Sporting Shooters Association in various states and the Australian Deer Association.

More information on Bush Heritage is available on our website (www.bushheritage.org.au).

Our summary recommendations are contained below, for which their justification are provided in the detail directly addressing the Terms of Reference. Our response to the terms of reference are largely drawn from monitoring and anecdotal evidence from our reserves and partnerships.

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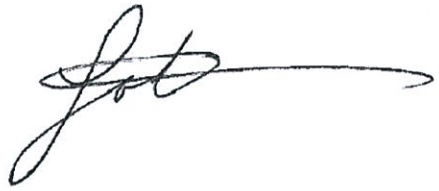
Summary Recommendations

Bush Heritage summarises the following recommendations to the Inquiry as detailed in the below responses to the Terms of Reference:

- **Research**: Robust research into the current and future distribution and population size of fallow deer in Tasmania is critical. Further, an independent and detailed cost – benefit analysis of the environmental, economic and social impacts of fallow deer on private landowners and the wider community in Tasmania should be undertaken.
- **Regulation:** The Tasmanian Government should review current legislation and management practices, moving towards recognition of the pest status of fallow deer and the facilitation of landmanagers to adquately control deer on their properties. .
- **Engagement:** Bush Heritage, like many others, welcomes the opportunity to be engaged in regulation and management decisions and outcomes, and is encouraged by this opportunity to provide input in to this enquiry.

We look forward to further input ourselves and by the broader community as this inquiry continues and recommendations are made.

Yours sincerely



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Legislative Council Terms of Reference:

Environmental impacts on private land

The first deer were introduced into Australia in the 19th Century and since then they have spread into the wild over much of temperate Australia (Figure 1). Fallow deer are thought to be first introduced to Tasmania in 1862, with subsequent releases in 1865[1]. In 1928 a limit was placed on the number of deer that could be taken[2] in order to grow the wild population.

Bush Heritage ecologists have been surveying areas in the Midlands, East Coast and Liffey Valley for well over 20 years. The environmental impacts of the introduction of fallow deer are now more apparent as the size of the population has increased substantially over the last decade. There is sufficient anecdotal evidence from qualified biologists to show that herd sizes have increased dramatically over the last ten years from around 5-10 to 30-50 and occasionally as high as 100. Deer weren't seen on the East Coast or Southern Midlands near Bagdad 20 years ago but they are now seen regularly. ***The expanding herd size and increasing extent are all consistent with a population that is increasing and continuing to expand its range.***

A recent scientific study from the University of Tasmania[3] states that the "Tasmania's population of fallow deer has more than tripled since the 1970s and in the next 10 years (2014–2023) it is likely to grow further by about 40%".

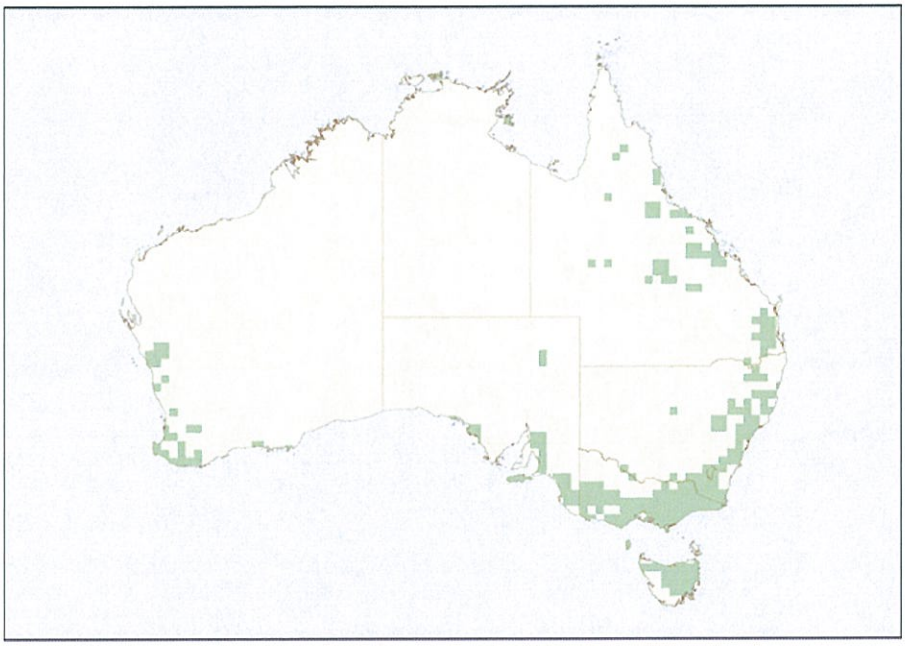

Figure 1. Distribution of all feral deer species in Australia.
Source: National Land & Water Resources Audit (2008) Assessing invasive animals in Australia 2008, NLWRA, Canberra/SEWPaC (2010)

As an introduced species, deer compete with native herbivores (and stock) for resources, in particular food resources; chiefly grasses and herbs. The second key impact that they have on the environment is through the damage and destruction of native shrubs, saplings and trees. This damage is the result of rubbing the velvet from new antlers of male deer and scent marking. The rubbing action strips the bark from these plants and often leads to the complete or partial ringbarking of the shrub or tree. Ringbarking greatly reduces the chances of the plant surviving in

[1] http://www.austdeer.com.au/deer-in-australia/
[2] Animal and Bird Protection Act
[3] www.nerplandscapes.edu.au/system/files/userfiles/S#34 **Deer** habitat

the short- to medium-term. ***Quantifying the impact of increased grazing and direct damage may be difficult as deer move across large areas in the landscape, but is critical.***

The cumulated effects of such damage could be significant. Firstly, if native herbivores are competing with fallow deer for grasses and other palatable species then any increase in their population will put added pressure on areas of native vegetation (grassy forests, woodlands and grasslands in particular) but also on adjacent managed pastures on farms. Secondly, rubbing typically targets shrubs and saplings of the dominant tree species, so over the medium- to long-term the ability of the canopy and shrub layer to regenerate will diminish leading to a thinning in the structure of woodlands and forests. These changes impact a wide range of species from the herbivores to the arboreal (tree-dwelling) species, as well as the vegetation itself.

These signs are evident on Midlands farms where Bush Heritage ecologists conduct surveys as part of the stewardship program that assist farmers to manage threatened ecosystems and species. The lack of natural tree regeneration due to fallow deer in the woodlands has been observed on 8 of the 10 properties participating in the MCF. On these Midlands properties, much needed recruitment of tall shurb species is being impeded by fallow deer, evidenced by ringbarking of recruits reaching 1m (Figures 2a and 2b).

Figure 2a Eucalypt sapling rubbed and stripped of its lower branches by a male deer during rutting season.

Figure 2b Detail of the level of damage caused by deer. This plant may survive if it sprouts from the base.

Native cherry (*Exocarpos cupressiformis*) is another species that deer damage. It is a slow growing species that is difficult to propagate and regenerates infrequently. At Bush Heritage's Liffey Valley and East Coast Reserves, Midlands properties and even on public reserves in the Midlands such as Tom Gibson Nature Reserve, the lower branches of mature native cherry are consistently browsed to a height of 1.5 metres and damage to the lower (bare) branches consistent with deer rubbing and browsing is evident (Figures 3a and 3b). Seedlings are exceedingly rare which may be contributed to by the increasing and expanding population of deer.

Based on extensive surveys across private land in the Midlands and on Bush Heritage properties, eucalypts, wattles and native cherry are all affected but the damage from deer is not restricted to these species. While the signs are more obvious on slow-growing, tall species such as these, smaller shrubs are also affected though they tend to die and disappear more quickly. Further, the recovery of forests and woodlands in the Midlands from other stresses such as drought is greatly hampered as a result of the indiscriminate and widespread damage caused by fallow deer.

Figure 3a Browsing damage to native cherry plant – bark rubbed and all lower branches removed up to 1.5 metres.

Figure 3b Lower branches get broken partly from browsing of leaves but also through rubbing velvet from antlers.

Any impact on commercial activities on private land

The commercial impact of wild deer is not yet directly felt by Bush Heritage on its properties at Liffey Valley or on the East Coast. However, Bush Heritage is affected indirectly through impacts on the farming enterprises with Stewardship Agreements under the Midlands Conservation Fund (2,600ha). Monitoring occurs on each of the ten farms involved in this innovative, privately-funded scheme.

Deer cause damage to the conservation values (as outlined above) that these landowners are paid to manage. The Stewardship Agreement sets out key performance indicators (KPIs) that must be achieved by the land manager in order to receive the stewardship payment. The extent of damage that deer cause to these farms is well-documented by S. Cameron[4] based on his property in a valley below of Ben Lomond. The primary loss is the competition with sheep for pasture and browsing damage to saplings and infrastructure. Over-grazing of native pastures or the understorey in grassy woodlands is not permitted so land managers must reduce stock numbers or the grazing period in order to meet the KPIs. As researchers at the University of Tasmania predict deer numbers will increase even further in the coming decade (and beyond), farmers with Stewardship Agreements may need to lower their livestock numbers further, partly to account for damage caused by fallow deer but for which they may have limited ability to manage compared to their own stock. Landowners could either absorb that loss or seek higher payments from the MCF in order for them to meet the KPIs. Both scenarios result in a commercial loss; either by the MCF or the farmer.

The MCF that funds these Stewardship Agreements is supported by generous donations from private philanthropic funds. Further funding is required to fully endow the MCF to reach its target of 8,000 ha, however the task of fundraising is made more difficult if there are risks that are largely

[4] Cameron, S. (2013) Kingston's Native Grasslands: Managing a scarce resource for everyone. Kingston, Tasmania.

out of the control of either MCF or the farmers. **The land manager's ability to adequately control deer on conservation areas or farms containing conservation assets is imperative.**

Greening Australia (GA), Bush Heritage and the Tasmanian Land Conservancy are the key partners in the landscape-scale conservation plan developed for the Tasmanian Midlands Biodiversity Hotspot (Midlandscapes program). Greening Australia is providing key support in the area by restoring degraded habitats and revegetating areas vital for many threatened animals. The capital costs to reduce the impact of fallow deer on the Midlands Restoration Program through fencing and caging are currently estimated at $250,000 for approximately 1,000 ha of restoration (Figures 4a and 4b)[5]. Tall fences have been constructed around the most vulnerable plantings which considerably increases costs relative to other parts of Australia where deer are not present or abundant.This significant cost to the program would otherwise have been spent on revegetating hundreds of hectares elsewhere in the Midlands to further enhance the Midlandscapes program.

In general terms, farm fences are not considered long term or financially viable management options by landholders trying to protect assets from fallow deer. Both Bush Heritage experience and communications with landholder partners indicate that fences are generally ineffective at keeping deer out of areas of native bush that are trying to recover and incur significant up front and ongoing expense. Some landholders have resorted to building 2-metre-tall deer-proof fences in order to protect high value farm land such as irrigated crops, pasture, or priority native vegeation; but few can justify this kind of expense.

Data suggests the income provided by recreational hunters to most private landowners is unlikely to offset the costs incurred of administration and upkeep of infrastructure, and the impacts deer have on crops, pasture and high quality native grassland. **An independent and detailed cost – benefit analysis of the impact of fallow deer on private landowners in Tasmania is urgently required.**

Figure 4a Unprotected saplings in the same area as figure 4b. The stems are broken and the bark extensively damaged.

Figure 4b Fences keep out deer and possums but once the top is removed the foliage can get heavily browsed.

[5] S. Burgess, Greening Australia

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Partly-protected status of fallow deer under the Wildlife Regulations 2010

Under the current management practices research suggests the deer population in Tasmania could reach one million by 2050[6]. This would undoubtedly have major environmental and economic implications and such a situation should and can be avoided if we act now to make the necessary changes to the current regulations.

Bush Heritage would encourage the Tasmanian Government to consult further with the environment sector regarding the ongoing management of fallow deer in this state, given their increasing investments and land holdings through acquisition and partnerships. Such consultation could include recommendations to deer management practices and review of the species partly protected status.

It is clear that the current protection afforded to fallow deer has led to its increasing population and distribution, contributing to economic and environmental impacts on a wide cross-section of Tasmanians, their land and its native species. The current Tasmanian Deer Advisory Committee recently re-stated that fallow deer should remain scheduled under the Wildlife (General) Regulations 2010 as partly-protected wildlife[7]. The Tasmanian Deer Advisory Committee missed the opportunity to fully consider the broader financial and environmental impacts of fallow deer and consider alignment with regulations in other states.

Bush Heritage also manages properties in south-east NSW (Scottsdale, Tarcutta and Burrin Burrin Reserves) where fallow and red deer occur in similar grassy woodlands and forests as occur across much of eastern Tasmania. In NSW landowners are not restricted by the number of permits they receive from the authorities and other aspects of culling (eg. seasons) are less regulated. This less-regulated approach has not lead to the loss of deer in these regions but it does mean that herd sizes are considerably smaller even in the breeding season when they tend to form larger groups (around 5-10 in NSW versus 20-30 in Tasmania

The protection afforded this species in Tasmania is contrary to the situation in other states where deer species (including fallow deer) have been identified as causing significant environmental damage which has led to a draft National Threat Abatement Plan under the Commonwealth's *Environmental Protection and Biodiversity Conservation Act* 1999.

The contradictions in management arrangements for wallaby and kanagroos compared to those of fallow deer are creating management tensions for private land holders. The situation for landowners with conservation covenants under the *Nature Conservation Act 2002* highlights the contradiction of the current situation. Bush Heritage, as with over 500 land-owners in Tasmania, has covenants on all its properties in Tasmania. These covenants require the land-owner to:

- allow adequate and appropriate opportunities for recruitment or regeneration of native species; and
- control or eradicate (if feasible) feral animals (including feral cats, goats, rabbits and hares) on the Land.

The intent and the terms of the covenant and the wildlife regulations (with respect to fallow deer) are incompatible. **A balanced approach is required in Tasmania to enable effective land management and protection of conservation values.**

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[6] Potts, J, Beeton, N, Bowman, D, Williamson, G, Lefroy E & Johnson C, (2015) *The historic, current and potential status of introduced Fallow Deer (Dama dama) in Tasmania, Australia.* Wildlife Research. 41(8) 633-640.
[7] Game Tracks 2016

Any matters of incidental thereto.

While economic and environmental impacts have been outlined above, a key area missed under the terms of references is the social impacts of deer on the community. While Tasmania has relatively high animal road toll , the species killed are typically small mammals such as wallaby, possum and devils. There are increasing reports of cars colliding with or just missing deer on major highways, not just back roads. High speed collisions with mature fallow deer cause significant damage to vehicles and may lead to human fatalities. If, as predicted, the number of deer increases, the social (and financial) costs may be significant[8]. This is of signfiicance to Bush Heritage with staff who operate remotely and travel by vehicle regularly throughout Tasmania.

[8] White, P, Smart, C, Bohm, M, Langbein, J & Ward, A (2003) *Economic impacts of wild deer in the east of England*, Executive Summary, Available from: http://imap.woodlandforlife.net/PDFs/DEER%20studyExecutive_Summary%5B1%5D.pdf

Allison Waddington

From: Jody Gunn <Jody.Gunn@bushheritage.org.au>
Sent: Thursday, 30 June 2016 4:22 PM
To: DEER
Cc: Gerard O'Neill
Subject: BHA submission to Inquiry into the wild fallow deer population in Tasmania
Attachments: BHA Submission_Inquiry into fallow deer in Tasmania_June 2016.pdf

We are pleased to provide a submission to the Inquiry into the wild fallow deer population in Tasmania. Please find this attached and confirm receipt of this submission.

Kind regards.

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