

Australasian Wildlife Management Society

AWMS Position Statement on the Management of Feral Goats

Background

Goats were introduced to Australia and New Zealand very early in European settlement and the feral descendants of these animals and from later liberations now occupy about 16% of Australia and 12% of New Zealand. Feral populations of goats remain on about 24 Australian islands and on about 4 New Zealand islands. Poorly restrained domestic goats remain a significant source of new feral populations when they escape or are abandoned.

The status of goats as feral or domestic is often unclear both legally and in practice. Domestic goats are those under some form of husbandry, i.e., they are owned, identified, restrained, managed for population structure and density, and receive some level of animal welfare. However, some goats receive some of these management characteristics but are in all other respects indistinguishable from feral animals receiving no husbandry. For example, some feral goats are owned in the sense they go with the land and might be harvested, but are not restrained, identified and receive no welfare considerations. Note: a feral population is technically defined as a population of a species that has been domesticated that is now in a free-living state. Wild animals are those of species that have never been truly domesticated, such as deer.

Feral goats are recognised as pests by conservation agencies in both countries and government policies and management actions are set out in a National Control Plan for New Zealand and a Threat Abatement Plan for Australia. Feral goats have been called “designer pests” because of the way our Neolithic ancestors changed their behaviour when they domesticated wild goats. They are very adaptable animals found from hot deserts to wet sub Antarctic islands. Goats have high birth rates because the nannies can breed in their first year, they can produce twins and triplets, and can become pregnant while still lactating and so produce two litters within a year. Goats are as fussy as other animals with respect to their preferred foods, but can subsist on a wider range of plants than many other herbivores, and their social behaviour means they can reach very high local densities and cause severe local damage to the vegetation. Goats can survive without regular access to free water unless the habitat is very arid and hot – and even then they do not have to drink every day.

Feral goats are also recognised as pests by many government agencies responsible for primary production policies, largely because of their effects on the environment, their perceived competition with domestic livestock, and potential risks posed by diseases and parasites they share with livestock.

However, feral goats are also sometimes seen as a resource, particularly in the semi-arid rangelands of Australia. Here individual landowners can make money by selling feral goats they have mustered or trapped. Currently, about 1 million feral goats are harvested each year in Australia, killed at abattoirs and the meat exported. The income derived from this can be a significant proportion of a landowners’ cash flow in years when the price of goats is high and the price of wool is low. When the opposite applies or during droughts, the same landowner can perceive goats as a pest.

Feral goats are also used to control weeds such as blackberry, St John's wort, sweet briar, and gorse. Generally, the animals have to be held at high densities to be effective so some level of husbandry – effective fencing at least – is required.

The AUSTRALASIAN WILDLIFE MANAGEMENT SOCIETY therefore notes that:

1. *There are no legal impediments to controlling feral goats in Australia and New Zealand should government agencies and private landowners wish to do so.*

A national or State 'view' of goats may be imposed by legislation and prescribed management regimes paid for by taxes or rates, or by penalties on landowners who do not comply. Given the mixed views of the status of feral goats, most governments are now unwilling to create such laws or to enforce them. History has shown this approach to be unsustainable unless beneficiaries pay - and for goats, one person's benefit is often another person's loss. Alternative approaches being attempted in the rangelands of Australia are to treat feral goats as part of stocking rate rules and to set these adaptively by monitoring the condition (biomass and diversity) of the vegetation.

2. *There are few technical impediments to controlling feral goats in Australia and New Zealand. Humane and efficient control methods are available.*

That feral goats are not managed more widely is largely because of financial constraints on both government agencies and private landowners, and because some private landowners either see no benefit in controlling goats or gain financially from their presence.

3. *Management goals for feral goats are often set at an individual property level, and this complicates any regional or national management strategies for feral goats either as pests or as resources.*

Unlike some exotic species in Australia and New Zealand (e.g., foxes, rabbits, mustelids) which are almost universally viewed as pests, feral goats are seen by some private landowners as resources under some circumstances, as pests under others, and sometimes as both simultaneously.

4. *In both Australia and New Zealand many insular and some mainland feral goat populations have been eradicated.*

Feral goat populations may be eradicated only where all goats can be placed at risk and removed at a rate faster than they can replace their losses at all densities, and where the risk of re-colonisation is zero. Most remaining insular populations and some isolated populations on the mainland can be eradicated if all of the above rules can be met.

The cost to remove the last goats is often very expensive so decisions to attempt eradication need to be made critically after a judgement on the above conditions for success, and must be justified in terms of the benefits expected at that place relative to the benefits foregone elsewhere when control budgets are limited.

5. *Where eradication is not possible, both government agencies and individual landowners have found it difficult to sustain pest control as their budgets or*

priorities change.

Therefore, strategies that give long-term benefits for short-term and one-off control actions have less risk of failure. Biological control, habitat manipulation, and eradication are potential strategies for the management of feral goats.

However, biocontrol and habitat manipulations are still novel approaches to feral goat control and may require further consideration before they could be routinely used. Biocontrol using disease organisms is unlikely to be acceptable because of the domestic goat industries. However, in Australia dingoes generally exclude feral goats and so, where the dogs are permitted, they may be used as a biocontrol. In arid Australia, the management of water bores may limit feral goat range and numbers.

6. *Commercial harvesting of feral goats offers an efficient method to reduce goat densities in Australia.*

However, its use as a sustained control technique for pest control depends on the harvesters' goals that determine the residual densities of goats that in turn determine the extent of the adverse impacts of goats.

In order of benefit as a pest control tool:

- Small, frequent harvests from low-density populations are best, but unless coordinated across many properties they are unlikely to be profitable.
- Infrequent but large harvests may allow cohorts of regeneration of woody vegetation.
- Regular harvests from high goat densities may maximise the profit from the sale of goats but are unlikely to provide much benefit to the environment unless accompanied by reductions in other domestic or wild herbivore densities to compensate.

7. *Where goats are managed as pests managers must set target densities (and therefore target culls or harvests) at which the impact of the goats is removed or ameliorated.*

These targets are largely unknown in both New Zealand and Australia, and are particularly difficult to set a priori in the fluctuating environments of the rangelands in Australia. They can be developed by monitoring the outcomes of management actions.

Accordingly, the AUSTRALASIAN WILDLIFE MANAGEMENT SOCIETY Recommends:

1. That unmanaged feral goats be seen as unwanted pests.
2. Where landholders consider feral goats to be a resource, the goat should be seen as livestock and landowners must take responsibility for their management and its consequences. The rules for managing livestock, such as maximum stocking rates, should apply, and adverse effects on neighbours should be eliminated.
3. Where most or all land managers consider goats to be pests over a wide area and control is

deemed necessary, an agreed strategy must be put in place if control is to be sustained. Such a strategy must consider:

- the scale of the problem and the scale of the control response possible. If the two don't match a system of prioritisation is essential,
- equitable sharing of the costs according to the degree of benefits,
- the constructive use of legislation, extension programs, and positive incentives to support the concerted control action.
- a monitoring scheme to measure success or failure and a reporting process to change management actions if appropriate.

4. If the rules for eradication can be met and if the benefits of eradication outweigh the costs, then eradication should be attempted. If the rules cannot be met, then an intent to achieve the impossible can be counter-productive and will certainly include opportunity costs.

Eradication may be possible and desirable for some patchily distributed feral goat populations on mainland New Zealand and Australia, but is very unlikely to succeed over the whole semi-arid rangelands of Australia or over the large populations in extensive forested areas in New Zealand.

5. Government agencies should control goats on land they administer, with priorities being set if funds are limited. They should also take a lead role in coordinating feral goat control in surrounding lands and in areas of high priority where the public good would be served.

Governments in both Australia and New Zealand should also take a lead role in funding priority research on goat control. AWMS sees these priorities as being:

- Identification of appropriate target densities and methods to measure their achievement for sustained control operations on feral goats in a range of priority conservation habitats.
- Assessment of the different management goals with respect to feral goat management of landowners, particularly in the pastoral rangelands of Australia, and the consequences of these goals on residual goat densities and impacts.
- The potential of water management as a control tool for goats in the semi-arid and arid rangelands of Australia.
- Cost-effective methods of eradicating newly-established, small, and isolated populations of feral goats - where this is strategically possible and justified.
- Identification of the changing optimal densities of goats to effectively control weeds without competing with domestic stock or adversely affecting biodiversity values.
- Review and audit of the underpinning legislation, planning systems, and current implementation of major goat control strategies in Australia and New Zealand.

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