

Pest management in NSW national parks

RABBITS

FACT SHEET



Photo, M Schulz

History

Rabbits were introduced to Australia by the First Fleet and the first feral populations were established in Tasmania by 1827.

The Victorian Acclimatisation Society released 24 rabbits on Christmas Day 1859 to hunt for sport and to help settlers feel more 'at home'. By 1886, rabbits had spread as far as the Queensland–NSW border and by 1900 they had reached Western Australia and the Northern Territory. In the 60 years following 1886, rabbits invaded 4 million square kilometres of Australia, making it one of the fastest colonising mammals anywhere in the world.

Competition and grazing by rabbits was listed as a key threatening process by the NSW Scientific Committee in 2002.



New South Wales
Government

Distribution in NSW today

Feral rabbits live in a wide range of habitats, including grasslands, woodland, heath and forest, but they can also achieve high densities in some farming land and even suburban Sydney. However they are most prevalent in arid and semi-arid areas of western NSW.

About 23 million hectares of NSW is free of feral rabbits, with around 2 million hectares of this area in national parks. This means that NSW national parks have relatively more areas free from feral rabbits than other land tenures. In fact, the NSW National Parks and Wildlife Service (NPWS), now part of the Department of Environment and Conservation, has over 200,000 hectares more rabbit-free land than would be expected for the proportion of land it manages (about 8% of the state).

Impact on the environment and agriculture

Grazing and burrowing by rabbits can cause serious erosion problems, reduce recruitment and survival of native plants, and modify entire landscapes.

Rabbits also threaten the survival of a number of native animal species by altering habitat, reducing native food sources, displacing small animals from burrows, and attracting introduced predators such as foxes. Rabbits are believed to have contributed to the decline or disappearance of a number of species in NSW, such as the greater bilby, yellow-footed rock-wallaby, southern and northern hairy-nosed wombats, the malleefowl and the plains-wanderer.

Rabbits are eaten by introduced predators such as foxes, wild dogs and feral cats, which can result in artificially high populations of these pest animals in some areas.



If rabbit numbers decline suddenly the pests turn their attention to native prey, causing 'hyper-predation' impacts on native animals.

It has been estimated that Australian agriculture loses more than \$115 million a year because of overgrazing by rabbits. Rabbits can also have significant impacts on Aboriginal and historic cultural heritage. For example, overgrazing by them has worsened soil erosion in Mungo and Kinchega national parks, exposing culturally significant sites such as Aboriginal burial grounds.

Management by NPWS

NPWS has rabbit control programs in a large number of national parks, from Kinchega National Park in Far Western NSW to Sydney Harbour National Park.

NPWS is working closely with the NSW Department of Primary Industries (DPI), rural lands protection boards (RLPBs)

and Landcare groups to capitalise on the spread of rabbit haemorrhagic disease (RHD) and ensure that effective follow-up control programs with conventional techniques, such as warren-ripping, fumigation and 1080 poisoning, are carried out. RHD has led to reductions in rabbit numbers of over 90% in some areas.

Control techniques

NPWS uses biological control (RHD and calicivirus), mechanical methods such as warren-ripping and rabbit-proof fences, poisoning, trapping and shooting.

NPWS has deployed a propane gas fumigation unit to control rabbits in sensitive areas, such as Aboriginal heritage sites, and around threatened plant communities and infrastructure, such as that managed by the Snowy Mountains Hydro Electricity Authority.

SOME NPWS RABBIT CONTROL PROGRAMS

Eradication of rabbits from Cabbage Tree Island

NPWS has eradicated feral rabbits from Cabbage Tree Island off the coast of Port Stephens as part of a recovery program for Gould's petrel. The program illustrates how conventional methods (in this case poison baiting and trapping) can be combined with biological controls (RHD and myxomatosis) to effectively control rabbits. There has already been a dramatic increase in the regeneration of plants on the island, which provides hope for the recovery of both the petrel and the only offshore rainforest in south-eastern Australia.

Western NSW

In Western NSW, NPWS works cooperatively with the DPI and local RLPBs to coordinate effective rabbit control programs:

- In Mungo and Mallee Cliffs national parks, fumigation and warren destruction to capitalise on the release of RHD has reduced the rabbit population by over 90%.
- In Kinchega National Park, the release of Spanish rabbit fleas has helped to assist the spread of RCD. In addition, ripping and fumigation of around 22,000 warrens has allowed a

range of important native species – such as butterbush, belah, rosewood and the threatened purple-wood wattle – to recover. This integrated rabbit control program has treated about 75% of the park and NPWS staff are currently working to keep the rabbit numbers low.

- In Nombinnie Nature Reserve north of Hillston, more than 10,000 warrens have been destroyed in over 40,000 hectares. Warrens have been mapped using Geographic Information Systems with overlays of vegetation and soil type.

Oolambeyan National Park

When NPWS acquired Oolambeyan National Park near Hay in 2001, about 3500 hectares of the reserve was heavily infested with feral rabbits. NPWS used 1080 baiting and warren-ripping over the entire area, which has dramatically reduced the rabbit population. Control of feral rabbits, European foxes and noxious African boxthorn weed is the first phase of a management program aimed at restoring habitat for the endangered ground-dwelling bird, the plains-wanderer.