

The Perils of Ferals

PHILLIP ISLAND
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Pest animals

There are a range of pest animals that exist across Phillip Island that have a negative impact upon the environment and biodiversity. Foxes and feral cats threaten wildlife, domestic pets and livestock through direct predation and spread of disease. Other invasive pest animals, including rabbits, Indian mynas, starlings and feral bees, also impact our native wildlife by competing for food and resources. Rabbits also burrow and overgraze, destroying natural habitat and farmland. Together with local council, stakeholders and community, Phillip Island Nature Parks (PINP) are working towards removing the threat of pest animal species from Phillip Island to ensure the survival of our native species in this fragile ecosystem.

Foxes: Achieving a fox free Island

European red fox (*Vulpes vulpes*) predation is the greatest land-based threat to the Summerland Peninsula little penguin colony. Over the past 25 years, nearly 3400 little penguins have been found killed across the whole island. Foxes have the instinct to kill more than its immediate needs for food when given the opportunity, and also of 'caching', burying extra food for a rainy day. This behaviour can result in 'surplus killing' resulting in catastrophic losses of native wildlife. One individual fox has been recorded killing 60 penguins in a night and around 200 - 300 penguins over just a few months before it was removed. A fox control program commenced in the mid 1980's and

although this resulted in the removal of over 1000 foxes over the next 20 years, the fox population continued to thrive and penguins were still being killed. In 2004 the PINP Board of Management, with support from the local community, commissioned a Fox Eradication Strategy with the aim of removing all foxes from Phillip Island. Intensive baiting across private and public land four times each year, together with spotlight shooting, den fumigation and trapping has resulted in a comprehensive knockdown of the fox population. Since August 2015, no physical evidence of fox activity has been found on the island, although strong vigilance is maintained using trained fox detection dogs and camera traps to monitor potential refuges and areas of reinvasion. Fox sightings on Phillip Island can be reported on 0419 369 365.

Feral cats: An upper order predator

Feral cats (*Felis catus*) are adaptive, skillful predators and known to negatively impact island ecosystems around the world. Feral cats are those that live and reproduce in the wild and survive by hunting or scavenging; none of their needs are satisfied intentionally by humans. The potential for feral cats to impact Phillip Islands' little penguin and short-tailed shearwater populations is high, particularly in the absence of foxes.



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Their impact doesn't stop at seabirds; feral cats have been implicated in the extinction of around 70 Australian species including mammals, birds, reptiles and amphibians. However, feral cats also pose an indirect threat through the spread of disease. Toxoplasmosis is a feral cat borne disease caused by the protozoan parasite *Toxoplasma gondii* and is known to reproduce sexually only within the Felidae (cat) family. However, it can infect most types of warm blooded animals. Toxoplasmosis is usually spread by exposure to infected cat faeces and is known to be fatal to native Australian mammals such as eastern barred bandicoots (*Perameles gunnii*). The close proximity of urban development to rural and natural ecosystems, in which the feral cat population currently exists, creates the potential risk of the spread of such diseases to both native fauna and domestic pets.

Rabbits: A costly environmental mess

The European rabbit (*Oryctolagus cuniculus*) is a major environmental pest across all of Australia. Rabbits directly compete with many native animals for food and shelter and have dramatic negative effects on native flora through ring barking, grazing and browsing. Feral rabbits may have caused the extinction of several small ground-dwelling mammals from Australia's arid interior, and have contributed to the decline of many native

Their grazing and digging activities can lead to land degradation which results in more than \$200 million in agricultural production losses each year. Managing the rabbit population is complicated. Rabbits don't stop at property boundaries and coordinated effort between land managers is critical to achieve landscape-scale success using a number of different techniques, such as warren destruction, baiting and shooting. As both native and introduced predators feed on feral rabbits, a holistic approach is required for effective and sustained management.



The environment will win!

The successful management of pest animal species on Phillip Island has coincided with an increase in the number of little penguins, hooded plovers, cape barren geese and short tailed shearwater breeding on Phillip Island. In the future, small to medium sized mammal and bird species which are facing extinction on the mainland due to the threat of feral predators, may be reintroduced to Phillip Island. Species such as the long-nosed potoroo (*Potorous tridactylus*), rufous-bellied pademelon (*Thylogale billardierii*) and bush stone-curlew (*Burhinus grallarius*) could once more be abundant across the island.