

The Threat Abatement Plan for feral cats: implications for domestic cats

David Carter

ABSTRACT

The Commonwealth Feral Pests Program (FPP) is the first major government program that has seriously addressed the management of feral cats. The Program commenced in 1992, arising from the Endangered Species Program which had found that feral animals were common factors contributing to the decline, or preventing the recovery, of many endangered and threatened native species.

The aim of the FPP is to reduce the impact of feral animals on native species and the natural environment. The FPP funds research and management projects on the key threatening species: rabbits, foxes, cats and goats, particularly in accordance with Endangered Species Recovery Plans.

About \$400,000 is spent annually on feral cat management. The projects supported include:

- the ecology of feral cats in different environments throughout Australia;
- clarifying the effects of feral cats on native species;
- development of an effective baiting technique;
- refinement of conventional methods such as predator-proof fencing, trapping, shooting, tracking with Aboriginal experts and the use of trained dogs;
- assessing the potential for biological control.

The *Endangered Species Protection Act 1992* requires the Commonwealth to prepare a Threat Abatement Plan for predation by feral cats. This plan will guide Commonwealth action in managing feral cats. The primary focus will be on feral cats but given the links with stray and pet cats some consideration will need to be given to the management of all categories of cats.

INTRODUCTION

Our knowledge of feral cats lags far behind that of other introduced species because cats have never been regarded as an agricultural pest. So, although CSIRO, the Bureau of Resource Sciences and state departments concerned with primary industry have funded extensive work on rabbits, foxes, goats, horses, donkeys and pigs, the Commonwealth Feral Pests Program (FPP) is the first major government program that has seriously addressed the management of feral cats.

At the outset it is important to define the categories of cats so there can be no confusion.

- *Feral cats* are those which live in natural areas and survive by hunting or scavenging. None of their needs are supplied intentionally by people.
- *Stray cats* are those found in and around cities and towns. They may depend upon resources provided by humans but are not owned.
- *Rural cats* are those which live unconfined on farms and rural properties where some of their needs may be provided by humans.
- *Pet cats* are owned by an individual or a household. Most of their needs are supplied by their owners.

These categories of cats are segments along a continuum and there is plenty of evidence that there is an exchange of individuals and genes throughout the continuum.

It is generally accepted that improvements to the management of pet cats, stray cats and rural cats are necessary to reduce recruitment into the feral cat category. The extent and nature of that recruitment and the methods for controlling feral cats are subjects that require further research. The FPP is funding some of that work.

THE FERAL PESTS PROGRAM

The Feral Pests Program commenced in 1992. It arose from the Endangered Species Program which had found that feral animals were common factors contributing to the decline, or preventing the recovery, of many endangered and threatened native species. The aim of the FPP is to reduce the impact of feral animals on native species and the natural environment, particularly in areas important for the recovery of endangered species. The program is implemented mainly through cooperative projects with State and Territory conservation agencies although a number of university and private researchers also have been funded.

The major components of the FPP are:

- Research and management projects on the key threatening species: rabbits, foxes, cats and goats. The FPP also supports projects on donkeys, camels, feral fish, honeybees and rats and is involved with more obscure problems such as the mainland yabby which has been introduced to Tasmania, and a feral starfish which has been found in coastal waters around Hobart.
- The FPP supports research and management projects on feral animals in accordance with Endangered Species Recovery Plans.
- The FPP conducts strategic overviews of the status of species where it is unclear whether they have a significant detrimental effect on conservation – for example, honeybees.
- The FPP is contributing to research into leading-edge technology such as the CSIRO work on immuno-sterility for foxes and rabbits. The FPP is funding satellite tracking of camels in the Northern Territory and is closely involved with research on a new disease that affects rabbits.
- Refinement of conventional techniques - for instance, the FPP has just completed a review of the effectiveness of predator-proof fencing and there are some promising results in testing additives for baiting feral cats.
- Education and public information is yet another component of FPP activities. The FPP aims to provide authoritative information on feral animals and the issues associated with them.

Feral cats

Feral cats are an important component of the annual \$1.9 million budget. Of this, some \$400,000 has been spent annually on cats and the FPP will commit about \$500,000 in the coming year 1994/95.

The primary aims of cat projects funded or being considered by the FPP are as follows:

Biology and ecology - the FPP is studying the ecology of cats in different environments. Their effects on wildlife and its vulnerability are quite likely to vary across the vast range of habitats that cats occupy. It is unlikely that any one technique or management strategy will be effective or appropriate in all areas. Projects are underway in Northern Territory, Victoria, Tasmania, South Australia and New South Wales.

Clarifying impact - there is clear evidence that cats have caused the decline and extinction of native animals on islands. On the mainland, predation by feral cats is thought to seriously affect the continued survival of native species which currently persist in low numbers. Feral cats have been shown to prevent the recovery of endangered species during re-introduction programs in Western Australia and the Northern Territory. The species affected were the numbat, golden bandicoot, burrowing bettong, mala and bilby.

Nonetheless, some very experienced scientists and wildlife managers remain sceptical that feral cats exert a significant effect on native wildlife on the mainland. While the Australian Nature Conservation Agency (ANCA) does not intend to relax its efforts on controlling feral cats, it is important to clarify their impact so that scarce management resources can be directed to where they will achieve the most for nature conservation. An important component of research programs is to document the response of wildlife to the removal of cats.

Baiting techniques - baiting is usually the cheapest broad scale technique for controlling small and medium sized animals. At the moment, baiting techniques for feral cats are much less effective than techniques for baiting dogs and foxes because feral cats seem to be reluctant to scavenge. Development of an effective baiting technique for cats is a high priority. Consequently the FPP has put significant resources into this and research groups are working on baiting in Tasmania, Western Australia, Queensland, South Australia and the Northern Territory.

Some promising early results have come from some of these trials but the difficulties are formidable because cats tend to hunt by sight and sound, rather than by scent. What is needed is a bait that flaps and squeaks, is palatable and toxic and which does not pose an unacceptable risk to non-target species.

Other conventional methods - a recent report to ANCA by Dr Brian Coman has reviewed predator-proof fencing in Australia. He found that although most fences are a significant barrier to foxes and cats, they can breach even the most elaborate fences and not enough consideration has been given to integrating fencing with baiting and trapping. Fencing is very expensive and is likely to be useful only for small areas.

The work in the Northern Territory will test and evaluate trapping, shooting, tracking with Aboriginal experts and the use of trained dogs. These more labour intensive techniques may be useful where a few individual cats, such as large, experienced males, are specialising in hunting rare species. By selectively removing those cats the primary agent of damage may be eliminated and the colonies can survive even though there are other feral cats around.

Biocontrol - Ms Libby Moodie is finalising for ANCA a very detailed review of the potential for biological control of cats. Biological control includes much more than releasing diseases. At present it seems unlikely that there is a disease which is sufficiently virulent, humane and from which pet cats can be protected. Introducing disease organisms as a method for controlling feral cats is not a priority of the FPP. However, feral cats captured during the field programs currently underway are being screened for diseases, parasites and pathogens already present which may be limiting their populations.

There is evidence that dingoes suppress cat numbers in some environments. Rabbits appear to be a key food for many cat populations, especially during winter or drought. Cats may not be able to hunt efficiently in dense vegetation so management of habitat to reduce fragmentation and to increase the density of vegetation may be an effective strategy to reduce cat predation. Management of predators, competitors, prey and habitat may lead to useful outcomes and the FPP has supported some work to explore these forms of biocontrol.

In the longer term, the immuno-contraceptive technique currently being investigated for rabbits and foxes at the Vertebrate Biocontrol Centre may have applications for managing feral and stray cats.

Community attitudes and duration - the FPP also has funded a number of community education programs on the problems cats pose to native wildlife.

In Victoria, the Department of Conservation and Natural Resources has been developing material for a national community education campaign. Teaching resources for primary and secondary schools, municipal councils and the general community are being produced.

In 1993 the Queensland Department of Environment and Heritage, with funding from the FPP, conducted a workshop on cat management for local authorities in Queensland. The resulting publication is a valuable guide for the management of domestic cats.

THREAT ABATEMENT PLANS

A Threat Abatement Plan is a term used in the *Endangered Species Protection Act 1992*, which came into force on 30 April 1993. The Act is the primary instrument for Commonwealth action to protect and encourage the recovery of, endangered or vulnerable plants, animals and ecological communities. The Act contains a list of all endangered and vulnerable species, ecological communities and key threatening processes which impinge upon a number of threatened species or communities.

The Act provides for two types of plans which may be approved by the Minister: Recovery Plans to manage the recovery of listed species and communities; and Threat Abatement Plans which guide the abatement of listed key threatening processes. Control of feral predators is commonly cited as a necessary action to permit the recovery of endangered species, especially small mammals. For this reason predation by feral cats is listed as a Key Threatening Process. Other feral animals in this list are foxes, rabbits and goats. Threat Abatement Plans for cats and foxes will be the first such plans to be prepared and the early stages of this work are underway at the moment.

The first step in preparing these plans is to hold a workshop with key interest groups. The cat workshop entitled *Feral Cats - A National Approach: Towards A Threat Abatement Plan* was held in March this year. The participants considered the issues, the research priorities, the strategies and requirements for the Threat Abatement Plan. The report from that workshop has been published by ANCA.

A key point brought out at the workshop was that feral cats cannot be considered in isolation. Feral cats are part of a continuum which includes stray, rural, and pet cats. Managing any one of these groups in isolation is unlikely to be fruitful and it is important to reduce the movement of cats from urban to natural areas where feral cat control is taking place.

Our knowledge of feral cats and of effective management techniques is so limited at this stage that it is not realistic to write a detailed plan containing all the required elements. Much of the necessary information will be filled in by research findings over the next two years.

The status of the cat TAP

- The FPP is appointing a team to assist with preparing the draft TAP.
- The FPP is collecting information on cats including funding a detailed overview of what is already known about the impact of feral cats.
- The FPP is preparing an issues paper which will be advertised widely and should be out early next year for public comment.
- Toward the middle of next year a draft Threat Abatement Plan should be available for public comment.

CONCLUSION

Feral cats are now part of the Australian wildlife scene. We cannot get rid of them from the mainland or from Tasmania, ever. We can eradicate them from islands and from within fenced enclosures. Wildlife managers are optimistic that effective control will be possible in certain areas that are important for wildlife. This sort of control will be possible only with sustained effort and that is expensive, so we must continue to search for cheaper, more effective and imaginative ways of limiting the damage that feral cats cause to our natural systems. It also seems clear that improvements in our management of pet cats and control of stray cats will reduce recruitment into the feral population, especially in the settled regions of the country.

ABOUT THE AUTHOR

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David Carter has a diverse background in vertebrate ecology and wildlife management in Queensland, South Australia, Northern Territory and New South Wales. He has worked for the Australian Nature Conservation Agency (ANCA) since 1983, including three and a half years at Uluru - Kata Tjuta National Park, where feral animal management was one of his responsibilities. Since the beginning of this year he has worked in the Feral Pests Program on Threat Abatement Plans for feral cats and foxes.

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