

Cats - An Annotated Bibliography

by Frankie Seymour

Anderson I, "Alien predators devastate Australian wildlife", in *New Scientist*, Vol 145, No 1962, 1995.

This paper refers to two attempts to reintroduce native animals to areas from which they had disappeared due to human activity. These attempts failed because of cat predation. The paper does not analyse the factors which made the reintroduced animals susceptible to cat predation.

Animal Welfare Advisory Committee (NSW), position paper for the control of cats in Australia (unpublished), 1993.

The NSW AWAC reported to the Minister that "implementation of controls on feral cats may cause an imbalance in predator/prey and competitive predator relationships which may be particularly damaging to fragile ecosystems".

Animals Welfare Advisory Council (UK), report of the UK Working Party on Feral Cats (1977-1981), Agenda No. 8, 19/4/82.

This report of a desex and return program for owned and stray cats in the UK concludes that desex and return programs a highly effective strategy for controlling, reducing and eliminating cat problems.

Bailey C, "Western Shield, bringing wildlife back from the brink of extinction", brochure by the Western Australian Department of Conservation and Land Management (publication date unknown).

This brochure blames introduced predators for the decline of native animals in WA. It acknowledges that cats have not caused as much damage as foxes but "suspects" that they have. No evidence is provided in support of this suspicion.

Bayly C P, "Food habits of the feral house cat in the Woomera area" (unpublished), 1975.

The stomachs of 15 cats shot on the Purple Downs Station were analysed and found to contain mainly the remains of rabbits and mice.

Bayly C P, "A comparative analysis of the diets of the red fox and feral cat in an arid environment", in *South Australian Naturalist* No. 53, 1978.

The stomach contents of 29 foxes and 21 cats from northern South Australia were examined. The main food items were rabbit, native mice, house mice and lesser amounts of reptile, bird, invertebrates and vegetation.

Buckingham W, "Notes on the Cat" (unpublished), 1995.

This paper examines virtually every aspect of the cat debate. In particular, it notes the relationship between the near extermination of the cat in the 13th and 14th century, and the Black Death which, as a direct result of the absence of enough cats to keep the rat population healthy, wiped out one third of the

human population of Europe in three years.

Cameron A, "Forest Ecology" in *Wilderness News*, 1992.

This paper observes that because cats prefer to eat rabbit over native species, they only move into forest areas when the rabbit population drops dramatically. Old growth forests have a high resistance to feral carnivores, and preserving old growth forest is therefore the surest way of protecting native wildlife from cat, fox and dog predation.

Catling P C, "Similarities and contrasts in the diets of foxes and cats relative to fluctuating prey populations and drought", 1988.

Both cats and foxes eat principally rabbit while rabbits are available, but may supplement them with other prey in summer/autumn when only adult rabbits are available. Principal supplementary or alternative diet is invertebrates, followed by other small mammals and reptiles.

C.A.T.S., Report on the 6 year "Sterilise and Return to Home" program in South Australia 1988-1994 (ongoing), 1995.

This report on the first six years since C.A.T.S. began its desex and return program for owned and stray cats shows that desex and return programs are a highly effective strategy for controlling, reducing and eliminating cat problems and argues that they are also the only strategy which has actually succeeded in controlling cat populations in urban areas.

Coman B, report of the Victorian Vertebrate Pest Management Unit, in *The Impact of Cats on Native Wildlife, Proceedings of a workshop held on 8-9 May 1991*, ed. Catherine Potter, facilitated by the Endangered Species Unit, Australian National Parks and Wildlife Service, 1991.

This paper notes that we know very little about feral cats, other than that they are found throughout Australia, eat a variety of prey, and can shift in status between feral and semi-domesticated. Rabbits are their single most important prey - except where rabbits are absent such as in heavy forest and the tropical north. Birds account for little of their diet except in island situations. Lizards and insects are also minor. Coat colour genetics indicates that the domestic population does not infiltrate feral populations in remote areas, but near towns feral cats are likely to be dumped cats and their descendants.

Coman B J and Brunner H, "Food habits of the feral house cat in Victoria" in *Journal of Wildlife Management* No 36, 1972.

128 cat stomachs revealed that rabbits, along with a few other mammals, formed 88% of diet. Cats in undeveloped bushland rely more heavily on indigenous mammals, whereas in rural and urban areas, rabbits are their principal diet. Cats are opportunistic feeders who prey on whatever is most abundant.

Copley P, report of the South Australian National Parks and Wildlife Service, in *The Impact of Cats on Native Wildlife, Proceedings of a workshop held on 8-9 May 1991*, ed. Catherine Potter, facilitated by the Endangered Species Unit, Australian National Parks and Wildlife Service, 1991.

This paper notes that most assumptions about feral cat impact on wildlife are based on suspicion, supposition and superstition. Species which are most at risk are those which occur on islands, where cats were introduced, often for the express purpose of controlling native animals such as the South Australian brush-tailed bettong which is believed to have become extinct as a result of cat predation. They may also have contributed to the extinction of the tammar wallaby on Flinders' Island, and may have suppressed reestablishment of Cape Barren geese on Reveby Island. Separating the impacts of cats from those of foxes

and dingoes, and taking into account the confounding influences of rabbits are major problems in attempting to interpret existing relationships.

Copson G, report of the Tasmanian Department of Parks Wildlife and Heritage, in *The Impact of Cats on Native Wildlife, Proceedings of a workshop held on 8-9 May 1991*, ed. Catherine Potter, facilitated by the Endangered Species Unit, Australian National Parks and Wildlife Service, 1991.

A survey of the opinions of cat carers suggested that domestic and semi-domestic cats had killed 65 000 native and 76 000 introduced animals over the survey period. 73% of native kills were believed by respondents to be native birds. There is some speculation in the paper that cats could be dangerous to the survival of rare and vulnerable bird species of the buttongrass plains, but no research or studies are cited to support this. A number of species "which could be considered as endangered or potentially threatened in Tasmania" (presumably from causes other than cats) are listed as being under possible additional threat by cat predation, but no evidence is provided to support this view.

Dowling B, Seebeck J H and Lowe K W, "Cats and Wildlife", results of a survey of wildlife admitted to shelters and animal welfare agencies in Victoria, conducted by the Department of Conservation and Natural Resources, Arthur Rylah Institute for Environmental Research, Technical Report Series No 134, September 1994.

A survey of injured wildlife admitted to shelters indicated 11% of admissions were due to cat attack. Species are itemised but not identified as native or introduced, common, rare, threatened or endangered. The paper claims that cats prey on 97 species of native wildlife, and 10 introduced species. Some cats were reported to bring in a series of the same species in a short time, suggesting that preying on a colony could cause local extinctions.

Garnett A, "Action Plan for Australian Birds", report by the Australian National Parks and wildlife Service, 1992.

This report of the Australian National Parks and Wildlife Service reveals that, of 513 threats to native birds, cats are believed to be involved in the threat to only three. (It is speculated that the cat may possibly be partially responsible for an additional 29 of these 513 threats).

Gordon G, "Feral Cats In Queensland", report of the Queensland National Parks and Wildlife Service, in *The Impact of Cats on Native Wildlife, Proceedings of a workshop held on 8-9 May 1991*, ed. Catherine Potter, facilitated by the Endangered Species Unit, Australian National Parks and Wildlife Service, 1991.

This paper states that there are "no documented cases in Queensland of cats having an adverse impact on native prey species." Elsewhere in Australia, the only evidence of adverse impact is "on island fauna and in areas where there are endangered species". The paper observes that cats have co-existed with most native species and preyed on many of them for over 100 years without driving them to extinction.

Johnson K, report of the Conservation Commission of the Northern Territory, in *The Impact of Cats on Native Wildlife, Proceedings of a workshop held on 8-9 May 1991*, ed. Catherine Potter, facilitated by the Endangered Species Unit, Australian National Parks and Wildlife Service, 1991.

The paper quotes a study which found that rabbits and house mice constituted the main mammalian diet of feral cats. It also showed that they eat other mammals, birds, reptiles, invertebrates and plant material. The only impact on native fauna cited is eradication of 11 re-introduced mala. The paper does not explain

why the mala had disappeared from the area in the first place.

Jones E and Coman B J , "Ecological Studies of Feral Cats in South Eastern Australia", Feral Cat Consultancy Report for the Australian National Parks and Wildlife Service from the Vermin and Noxious Weeds Destruction Board, Department of Crown Lands and Survey Victoria, 1980.

This paper reports a study of the diet of feral cats in the Mallee - Kinchega National Park , Eastern Highlands and Wyperfield National Park. Native animals are a major food source of cats only in the Eastern Highlands. There was no evidence that the small amount of predation in Kinchega National Park and Wyperfield National Park had a significant effect on any mammal population. It was difficult to draw conclusions about birds although birds remain at all times a minor part of diet. Rabbits were the major food source. The study identifies species by number but does not identify whether they were native or introduced or whether natives are common, rare, threatened or endangered. Fluctuations in rabbit numbers do not significantly affect the proportion of diet represented by rabbits.

Cats are opportunistic feeders choosing their prey according to availability.

Predation by other animals complicates the issue. It is difficult to determine a "tolerable" level of feral cat numbers without detailed knowledge of prey species. Such knowledge is not currently available. There is "no evidence that cats are currently involved in the decline and gradual extinction of any species in mainland Australia".

The paper claims that control is needed in situations where vulnerable and suitably sized native prey species, which are uncommon or endangered, are known to exist.

The paper notes that extreme hunting pressure on the fox has not reduced fox numbers. The same is likely to be true for cats.

Jones E, "Ecology of the feral cat on Macquarie Island", 1977.

A two year study of the diet of feral cats on Macquarie Island showed that rabbits, seabirds, rodents and carrion were principal food sources.

Jones E, "The Controversial Cat" in *Wildlife Australia* No 22 , 1992.

This paper states that rabbits are the major food source of "feral" cats, and "most studies show that they seldom eat birds".

Kinnear J, report of the Wildlife Research Centre, ed. Catherine Potter, in *The Impact of Cats on Native Wildlife, Proceedings of a workshop held on 8-9 May 1991, facilitated by the Endangered Species Unit, Australian National Parks and Wildlife Service, 1991.*

It has been virtually impossible to assess the impact of cats because they take the same prey as foxes, and because removal programs such as poisoning target both animals. The paper claims that cat predation could be of a kind which, in combination with other factors, could cause a prey population to decline towards extinction. However, the paper presents no evidence in support of this position.

Nattrass R, "Towards a more rational debate on the domestic cat in the City of Brisbane", paper presented to the Brisbane City Council Conservation and Environment Advisory Committee, 1992.

This Queensland National Parks and Wildlife Service paper states that there is "no evidence that the domestic cat is a major threat to the long-term survival of Brisbane's vertebrate fauna".

Nattrass R, "Wildlife Conservation in the Urban Environment", paper by the Queensland National Parks and Wildlife Service, 1993.

This paper concludes that "harvesting of surplus individuals of relatively common species by dogs and cats poses no threat to species survival".

Newsome A E & Coman B J, "Some introduced mammalian pests of the Mallee", in *The Mallee Lands, a Conservation Perspective*, ed Noble J C, Joss P J & Jones G K, proceedings of the National Mallee Conference 1989.

Rabbits are the staple diet of cats where rabbits are common, 54% - 94%, depending on season. House mice are consumed when available. In one study, after a crash in the rabbit population, cats and foxes were removed in one area and left in another area. In the area where they were removed, rabbit numbers increased 8 fold in 12 months. Where the predators were left alone the rabbits only doubled. Habitat destruction is putting pressure on mallee fowl. By keeping introduced prey numbers low and stable, boom and bust cycles which cause predators to switch prey can be prevented, with a consequent reduction in predation on native animals.

Newsome A, report of CSIRO, in *The Impact of Cats on Native Wildlife, Proceedings of a workshop held on 8-9 May 1991*, ed. Catherine Potter, facilitated by the Endangered Species Unit, Australian National Parks and Wildlife Service, 1991.

The impact of cats on wildlife populations are plain in off shore islands but they mainly eat rabbit and are prolific where rabbit populations are prolific. Studies have indicated that cats tend to eat more birds and reptiles when rabbit numbers are low. The paper argues that watering holes and drought refugia become

like "islands" in drought and therefore cats become more of a threat. This argument is not supported by any research or analysis presented by the paper.

Newsome A E, Parer I and Catling P C, "Prolonged prey suppression by carnivores-predator removal experiments" in *Oecologica* 78, 1989.

In this study, cat and fox predation kept rabbit populations at lower levels following dry seasons than where these predators were removed.

NSW National Parks and Wildlife Service, "Endangered Fauna" (publication date unknown).

This study looks at 62 species of endangered mammals, birds and snakes, and the main pressures facing them. In the entire study, there is only one mention of feral animals and two of introduced animals (the species are not defined) as being in competition with an endangered animal. There is no mention of any introduced animal preying on an endangered animal.

Osborne W & Williams K, report of the ACT Parks and Conservation Service, in *The Impact of Cats on Native Wildlife, Proceedings of a workshop held on 8-9 May 1991*, ed. Catherine Potter, facilitated by the Endangered Species Unit, Australian National Parks and Wildlife Service, 1991.

This paper states that although there is a perception that cats cause harm to native fauna, there has been no specific study which has attempted to assess the abundance and impact of cats in the ACT. Regular cage trapping confirms a diet of human food scraps, native birds, reptiles, house mice, fish and vegetation. Concern is noted about domestic cats in newly urbanised areas preying on rare legless lizards.

Partridge R, "Feral Cats in the Arid Zone", Conservation Commission of the Northern Territory, 1994.

Fauna and flora on the Barkly Tableland has declined alarmingly since human settlement. A third of mammal species have become extinct and many others have been dramatically reduced. This has now created a situation where feral cats (or, presumably, any native predator, although the paper neglects to mention this) may be capable of wiping out entire colonies of native animals. The paper estimates that there are thousands of cats in the Barkly Tableland, and observes that cats predate on a wide range of prey species.

It notes that in the previous century, over 1000 cats were deliberately released into the outback to control rabbit plagues. Dingo baiting programs may have resulted in an increase in the number of cats (since dingoes both compete with and prey on cats). Also, the Aboriginals preyed on cats, before moving to missions and cattle stations, and this helped to keep cat numbers in check. The paper argues that cat predation might affect natural dispersal and recovery patterns of native animals in boom times. The paper does not present any evidence in support of the position,.

Paton D, in *The Impact of Cats on Native Wildlife, Proceedings of a workshop held on 8-9 May 1991*, ed. Catherine Potter, facilitated by the Endangered Species Unit, Australian National Parks and Wildlife Service, 1991.

A survey of the opinions of people with and without cats appears to have provided the basis of this analysis of cat predation. There is some listing of species but no analysis of whether prey was introduced or native, nor of whether the native prey was common, rare, threatened or endangered.

Pech R P, Sinclair A R E, Newsome A E and Catling P C, "Limits to predator regulation of rabbits in Australia: evidence from predator removal

experiments", in *Oecologia Springer-Verlag* , No. 89:102-112, 1992.

This study argues, on the basis of a study of fox and cat predation on rabbits, that foxes can regulate rabbit populations and that predators can regulate a mammal population.

Reark Research Pty Ltd, "The Cat in the Suburbs", a population survey on suburban cats, 1994.

Statistics for Sydney and Melbourne indicate that nearly half of domestic cats do not catch animals or birds of any species. Of those which do, 37% catch rats and mice, and 24% catch introduced birds. Only 4% catch native birds.

Seabrook W, in *The Impact of Cats on Native Wildlife, Proceedings of a workshop held on 8-9 May 1991*, ed. Catherine Potter, facilitated by the Endangered Species Unit, Australian National Parks and Wildlife Service, 1991.

This paper notes that very little research on feral cats is available, but that a dietary study in several national parks west of the Great Dividing Range indicates that rabbits are the major vertebrate prey of cats. The remainder of their diet is composed of other mammals, reptiles, birds, arthropods, fish, scavenged food (refuse and carcasses) and plant material. Two species which are taken by cats are identified as being "of concern".

Seebeck J, Greenwood I & Ward D, in *The Impact of Cats on Native Wildlife, Proceedings of a workshop held on 8-9 May 1991*, ed. Catherine Potter, facilitated by the Endangered Species Unit, Australian National Parks and Wildlife Service, 1991.

Of 87 bandicoots examined, no adults had been killed by cats, but 40% of juveniles had been killed by cats. The paper claims that cats take 24 species of mammal, 18 species of bird and three reptile species. It is not stated whether any of these are considered threatened or endangered either by the cat or by other human activity.

Shire of Eltham, "Cats - Their Welfare & Control - Shire Of Eltham 1992", report for the Council, 1992.

Figures published in this paper, provided by a wildlife rehabilitation expert of 30 years standing, indicate that, in Eltham Victoria, where 80% of the human population are dog or cat owners, in 1991, less than half a per cent of injuries to wildlife were caused by cats.

Triggs B A, Brunner H and Cullen J M, "The food of fox, dog and cat in Croajingalong National Park, south eastern Victoria", 1984.

A study of scats from 48 cats showed that they preyed mainly on ringtail possums.

Wagner P, "A History of Feral Cats in Australia" (current Ph D research).

This thesis (Macquarie University) is still being written. A record of an interview with Paul Wagner in 1995 summarises some of his findings. It refers to fossil records, distribution factors and DNA analysis of feral cats which indicate that cats appeared in Australia about 500 years ago. There is even a "Cat Dreaming" and Aborigines regard the cat as a traditional and significant food source. Some even have the Cat as a totem spirit.