

NOTES ON THE DIET OF FERAL CATS IN TASMANIA

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Feral cats occur widely on the Tasmanian mainland, as well as on 59 of the state's offshore islands. Previous dietary studies in other parts of Australia have identified feral cats as being highly opportunistic predators. This means that dietary studies are valuable, yet limited to the region in which they are conducted. As such, whilst previous dietary studies on two Tasmanian offshore islands have been useful, accurate assessment of the effects of predation by feral cats across Tasmania required further investigation. This article summarises results of a dietary study of 91 feral cats captured from around Tasmania and euthanased as part of a routine feral animal control programme. The study was conducted for my honours project at the School of Zoology, University of Tasmania in 2005.

The analysis identified an extensive array of species that are predated upon by feral cats, including several species endemic to Tasmania. Organisms identified in this study included mammals, birds, reptiles, invertebrates and even plant materials. In many cases, it was difficult to identify material damaged by digestive processes, and therefore often not possible to identify material to species level.

Mammals - Several mammal species were identified, of which the majority were rabbits, rats and mice. It was not possible to determine whether the rats and mice were of native or feral species. A juvenile brushtail possum was also identified. Whilst an adult brushtail would be too large and aggressive to be killed by a cat, unattended juveniles may be predated upon. One stomach was found to contain the ear, fur and flesh of another cat. Cannibalism in cats is not unknown, particularly when resources are scarce; however, this cat may have been consumed as a result of scavenging rather than direct predation.

Passerine birds - Feral cats will climb trees after prey, so a wide range of bird species is susceptible to predation. Only two passerine species could be positively identified as prey from stomach contents: superb blue wren (*Malurus cyaneus*) and New Holland honeyeater (*Phylidonyris*

novaehollandiae). Evidence of other passerines was noted, but digestive damage prevented identification.

Seabirds - Feral cats will predate on seabirds, particularly on islands. Several stomachs from cats caught on Bruny Island contained the remains of little penguins (*Eudyptula minor*). Anecdotal evidence suggests little penguins are preyed upon in several coastal colonies around Tasmania, as well as on offshore islands around the state.

Reptiles - Several skink species and one snake species were found in cat stomachs from around the state. One stomach was found to contain 27 pregnant female tussock skinks (*Pseudemoia pagenstecheri*). This particular species is currently listed as vulnerable due to habitat destruction, and this observation leads to particular concern regarding conservation of this species.

Invertebrates - Several types of invertebrates were identified as important dietary items among Tasmanian feral cats; however, most were only identified to family level due to digestive damage. Taxa recorded include moths, spiders, beetles and crickets. Several stomachs contained the pest moth species *Abantiades hyalinatus*.

Plant material - Plant material appeared frequently in stomach contents and included grass, sticks, leaves and seeds. It has been suggested in previous studies that vegetation may be consumed to assist with internal parasite control, or even as a source of moisture; however the amounts of plant material found by this study do not support this. Instead this study would suggest that many occurrences of plant material ingestion were as an indirect consequence of prey consumption, rather than direct consumption.

The study showed that the feeding habits of Tasmanian feral cats are opportunistic as feral cats found on mainland Australia. There was no evidence found to suggest that cats have selective dietary tendencies, or that they do not scavenge. This type of diet ensures that feral cats have the potential to survive even the bleakest conditions as long as some food-source is still available, because a cat will simply switch prey when its preferred food-source is unavailable. This study has revealed several species not previously known to be predated by cats. However the study was conducted within a limited time frame; it is recommended that future studies are statewide, longer term and focus on the role of predation on threatened species.