

## The welfare implications of confinement of cats

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### Background

There are nearly 1 million cats in Victoria, however only just over half are actually owned cats. It is estimated that there are more than 300,000 stray cats in urban areas and about 200,000 feral cats. However, domestic cats make good pets and pet ownership provides people with benefits such as stress relief, companionship and stability in their lives (Friedman and Thomas, 1995; Allen *et al.*, 2001). Medical data indicate that pet owners are healthier, have lower levels of risk factors for heart disease and use the health system less (Siegel, 1990; Anderson *et al.*, 1992; Heady *et al.*, 2002).

However, the general public as well as Governments express a range of problems with both cat and dog ownership. Thousands of cats each year end up in animal shelters in Melbourne alone, and most are humanely destroyed due to lack of identification and not being claimed or re-homed. Around 80% of road accidents that involve cats occur at night. Cats are most active at night, and in particular at dawn and dusk. Native wildlife are also most active during this period, putting them at risk of predation by cats. All cats, even well-fed cats, hunt by instinct and can kill wildlife. In Victoria it is estimated that, on average, each cat kills 25 creatures each year. At the same time, feral cats eat the equivalent of seven large birds per week. Even if victims of cat attacks are rescued (rather than killed outright) they may die of the resulting infection of a bite or from shock. In addition they are often perceived as a real nuisance by neighbours. Some councils require cats to be confined between dusk and dawn, or even 24 hrs a day. It is likely that in the future more and more councils will move to require 24-hr confinement.

Although most cat owners perceive that cats have a need to roam outdoors and that this benefits the welfare of the cat, being allowed to roam also carries welfare risks for the cat. Cats are involved in fights with other cats and may get injured, they may contract diseases, or they may get lost. Cats are highly territorial and it would appear that if their territory is limited to indoors and perhaps an outdoor run, cats should be able to adapt to this lifestyle quite well. Cats spend a large part of the day sleeping (up to 19 hr/day), and as long as basic needs are met (water, food, a place to sleep and a litter tray) most cats should be able to cope with their environment.

However, since people keep cats for their own enjoyment, the environment of the cat needs to provide for more than just the basic needs. The environment should be such that it enables and encourages most natural behaviours of the cat as well as provide good opportunities for interaction between the owner (and family) and the cat. Cats are also usually part of the household and need to adapt to the home environment. This means that certain behaviours can be experienced as a problem, such as scratching furniture, spraying, climbing, etc. So the ideal environment should include features that will enable the performance of some of these natural behaviours without causing damage or being a nuisance.

If councils want to promote confinement of cats it is paramount that owners are convinced that confinement will not harm cat welfare or the human-cat relationship. Collecting information on welfare and health and behavioural problems of cats in different environments will contribute sound knowledge to this debate.

The identification of those features of the environment that are important to cats, that promote natural behaviour and minimise problem behaviour, will be important if owners are to accept confinement of cats. The aim of our current study is to examine the relationship between the level of confinement and behaviour and welfare of domestic cats.

### Materials and methods

A survey was conducted of 1600 cat-owners recruited through eight participating councils within the Melbourne area. Each council was provided with 200 surveys, including an explanatory letter and a stamped return-envelope, to send to 200 randomly selected owners of registered cats. The survey included questions on general management, health, general behaviour and behavioural problems (soiling, scratching, vocalisations, fear, lack of interaction, time spent near door/escape, etc). The environment (both indoors and outdoors) was described in terms of features and observed interactions of the cat with the environment. The survey also provided an opportunity to ask the owners about previous experiences and opinions about cat management.

In addition, a further 250 surveys have been distributed through veterinary clinics to collect information on cats and owners of non-registered cats. These data have yet to be entered in the database and are not included in the reported results. Furthermore, a select group of owners will be asked to keep a 7-day diary with detailed day to day observations on the behaviour of their cats. Some of these cats will be fitted with activity sensors to measure differences in activity levels related to the level of confinement. Faecal samples will also be collected and analysed for corticosteroids (stress hormones), in an attempt to establish differences in levels of stress related to confinement.

### Preliminary results

Detailed analysis of the data has yet to occur. However the results will hopefully be available at the time of the conference. Data will be analysed to determine the effects of level of confinement, and features provided during confinement, on behavioural indicators of stress and adaptation. In addition, the level of confinement may influence the incidence of behaviours that may cause resistance in owners to increasing the level of confinement of their cats (such as destructive behaviour). Preliminary analysis of the data, limited to frequency of answers, is reported below.

Of a total of 1600 surveys that were sent out, 672 completed surveys were returned. This indicates a response rate of 38%, which is within the expected range for this type of survey. Cat owners who reported that cats were either confined for 24hrs/day or only let outside for short periods under supervision made up 23% of the respondents. Only 8% reported that their cats were kept outside at all times, while 69% reported that their cats were outdoors part of the time. Of the total respondents 41% confined their cats during the night.

When asked about the features provided to the cats during confinement indoors, the following was reported:

Features	%Provided
Food	93%,
Water	90%,
Litter tray	60%,
Scratching pole	40%,
Elevated area	66%,
Hiding place	54%,
Sunny spot	72%,
View outside	84%,
Free access outside	32%,
Enclosed outdoor area/cage	5%

The data indicate that many cats have not completely socialised with people. Of the following statement 'my cat is scared of strangers' 39% agreed or strongly agreed. Respondents also agreed or strongly agreed to 'my cat is often nervous' (27%), 'my cat gets easily upset' (12%), and in this light may not be surprising, 'my cat hates going to the vet' (56%). It would be interesting to study the origin of these fearful cats, to establish if early socialisation with humans would influence these fear responses. The provision of a hiding place for these fearful cats may be important for their welfare, but is generally provided only for 54% of cats (see above).

It was interesting to note that only 18% acquired their cat through a breeder or pet shop, while 29% came from family or friends and 44% were strays or came from shelters (a further 9% came from other sources). This may have implications for the commitment that owners may have towards their cat and additional analysis of the data may help to answer this question.

When asked about problem behaviour of their cat, 25% of respondents agreed or strongly agreed that their cat scratches the furniture and 28% agreed or strongly agreed that their cat scratches carpets and rugs. In another question, 16% reported that their cat scratches the furniture often or very often. Anecdotal evidence suggests that providing a scratching pole/block does not really overcome this problem, and the data will be analysed to determine a correlation with the provision of such a feature. While urinating and defecating outside the litter tray often or very often was relatively rare (3 and 2% respectively) this would most likely be considered a nuisance behaviour by the owners which is likely to affect the willingness of the owner to confine such a cat. Owners also reported that 8% of cats climbed curtains often or very often.

When asked if owners would be prepared to confine their cats 24hrs/day if this was required by their council, 55% indicated that they would still allow their cat to go outside. A large majority agreed or strongly agreed with the statement 'my cat would be very unhappy not to go outside' and 57% agreed that cats should be allowed to roam. On the other hand, 51% reported that they thought their cat would be happy to live inside.

## Conclusions

The preliminary data indicate that behavioural problems and fear responses in cats are not uncommon. This may indicate both a lack of socialisation and adaptation to living in close contact with people. Considering the background of a lot of cats (ie. Originate as strays or from shelters) this may be not so surprising. It is possible that genetics also plays a role, as most cats are not specifically bred to be 'house cats'. Targeted breeding may improve temperament, but very few cats are obtained from breeders or pet shops so it is unlikely that people would be interested in specific breeds at this stage.

This survey involved owners of registered cats and it can be assumed that as a group they would be more responsible in looking after their cats than the population of cat owners as a whole. Nevertheless, a majority of respondents indicated a general reluctance to keep their cat confined at all times, while half the respondents also admitted that their cat would be happy to live inside. Hopefully, additional analysis of the data will find some correlation between level of confinement, features provided and behaviour of the cats, to assist in educating cat owners about these aspects.

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