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Cat admissions to animal shelters and the risk of euthanasia: How science can be used to guide animal management in Australia

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Abstract

Government and welfare agencies spend millions of dollars managing excess pets in the Australian community. Despite the introduction of legislation aimed at improving responsible pet ownership, many thousands of cats and dogs are received by animal shelters every year. Although cats and dogs enter shelters in similar numbers, cats are twice as likely to be euthanised as an outcome of shelter admission. Approximately 60 -74% of all cats are reported as euthanised annually.

The aim of the study was to investigate factors associated with 195,387 cat admissions to Australian RSPCA shelters between July 2006 and June 2010, and to identify risks for euthanasia. Various characteristics such as shelter, state, admission source, age, gender, date of arrival, colour, breed, sexual status (entire/de-sexed), identification, feral status and surrender reason were examined by shelter, state and season. Relevant results from this study will be presented to provide an overview of cat admissions to shelters in Australia and how this information may be utilised by animal management agencies to reduce excess and unwanted cats in our community.

Background

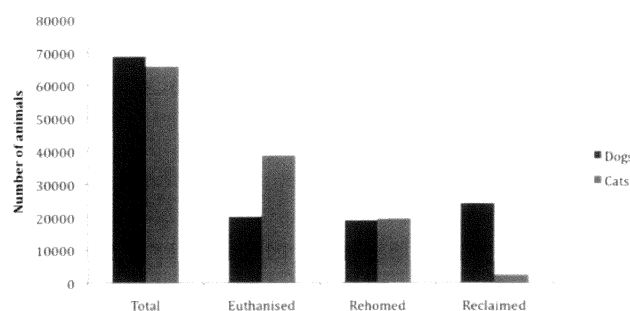
Pet ownership in Australia is one of the highest in the world with more than half of all households enjoying either a cat or dog (Australian Companion Animal Council 2009). Pet ownership is an integral part of Australian lifestyle and is associated with many physical, emotional and psychological benefits from our canine and feline counterparts (Straede and Gates 1993; Zasloff and Kidd 1994; Friedmann and Thomas 1995; Herrald, Tomaka et al. 2002). However,

the euthanasia of many potential pets in pounds and shelters is a serious welfare and moral concern.

Every year in Australia several hundred thousand cats and dogs become lost, abandoned or unwanted. Some become free-roaming, semi-owned animals in urban areas; however, many find their way to an animal welfare shelter or municipal pound. Euthanasia is unfortunately the most common outcome of shelter or pound admission for those animals that are not reclaimed or re-homed.

RSPCA annual reports indicate that while approximately the same number of dogs and cats are admitted to shelters, twice as many cats are euthanised (RSPCA 2010). Similar percentages of cats and dogs are also found new homes by the RSPCA; however, when reported reclaim rates are examined it becomes apparent where the discrepancy lies. Only 4% of cats are reclaimed from RSPCA shelters by their original owner / care giver (RSPCA 2010) (figure 1).

Figure 1: Dog and cat admissions and outcomes to RSPCA shelters 2009/2010*



* Data were sourced from RSPCA annual statistics 2009/2010 (RSPCA 2010)

Despite a reported decline in cat ownership in the Australian community over the past decade (McHarg, Baldock et al. 1995; Baldock, Alexander et al. 2003; Baldock 2004), a corresponding significant increase or decrease in RSPCA shelter admissions has not been documented (RSPCA 2010). RSPCA cat admissions have remained constant and cat euthanasia has remained at approximately 60% for the past 5 -10 years (RSPCA 2010).

Finding effective management strategies for excess cats in our communities is important; not only for the welfare of domestic cats, but also for financial and social reasons. Owned, lost and homeless domestic cats in Australia are managed by local government and welfare organisations, often at great expense.

Local governments in Australia were reported to have spent \$AU83 million in the year 2004 on managing domestic animals. In Queensland alone, an estimated AU \$30 million was spent, and of this more than 30% was above the revenue raised from registration, fines etc. (Australian Companion Animal Council 2009). Welfare organisations also often operate at a deficit and rely on contributions from the general public to fund operations.

Aside from financial costs, there is also strong evidence to suggest that euthanasing excess pets as a management strategy can cost our community socially. Australian research investigating the impact of euthanasing animals as part of workplace duties reported that 50% of all people working in a position that required the euthanasia of animals developed symptoms of perpetrator-induced post-traumatic stress (Rohlf and Bennett 2005). This finding is supported by research in the U.S. that found that high staff turnover in shelters was correlated with high euthanasia rates of animals in care (Rogelberg, Reeve et al. 2007), and that many shelter workers experience 'moral stress' (Rollin 1986; Arluke 1991), increased rates of depression, substance abuse, sleeplessness and emotional 'numbness' (Reeve, Spitzmuller et al. 2004; Reeve, Rogelberg et al. 2005; Rohlf and Bennett 2005; Rogelberg, Reeve et al. 2007).

There is a well documented lack of rigorous scientific information regarding cat admissions and outcomes to shelters and pounds, particularly in Australia (Rowan 1991; Rowan 1992; Scarlett 2008; Marston and Bennett 2009). With a lack of available information describing the population of cats presented to shelters and pounds, it is difficult to understand where the population of cats are coming from and why so many are being euthanised. Therefore, our objective was to examine and describe cat admissions and outcomes to Australian RSPCA shelters.

Study methods

Data were obtained from the RSPCA electronic information management system ShelterMate© documenting all cat admissions to RSPCA shelters using ShelterMate© (39 shelters) between June 2006 and July 2010. Variables collected included: shelter, state, admission source, surrender reason (if surrendered), age (kitten or adult), gender, date of arrival, colour, breed, de-sex status, microchip status, feral status, outcome to admission, and euthanasia reason (if euthanised) were examined by shelter, state and month (season).

To clarify definitions, individual shelter practices, and inconsistencies in data, both structured and informal, unstructured interviews with various RSPCA shelter management and general staff were also conducted.

During the study period, all Australian states and territories were represented in this study, and all participating shelters (with the exception of the Western Australian shelter) did not refuse any cats presented. The Western Australian RSPCA shelter does not accept healthy stray cats or any cat when the shelter is at capacity. The only RSPCA shelters that did not participate in this study were seven small regional Victorian shelters that had not upgraded their systems to incorporate ShelterMate©. It is also important to note that some RSPCA shelters included in this study also operated as a council pound facility.

This study encountered limitations that made data analysis and the interpretation of results challenging. Firstly, only RSPCA shelters were able to be included. Ideally data from all shelters and pounds in operation would provide the most comprehensive view of admissions and outcomes for Australian shelter cats. Secondly, the definition of age varied between states. Kittens were defined as those cats less than 3 months of age in Queensland shelters; as those cats less than 4 months of age in Victorian shelters; as those cats less than 6 months of age in the Australian Capital Territory, South Australian, Tasmanian and Northern Territory shelters; and as those cats less than 12 months of age in New South Wales and Western Australian shelters.

Results

CAT ADMISSIONS

A total of 195,387 cat admissions were recorded between June 2006 and July 2010. When all data was amalgamated, slightly more kitten admissions were recorded compared to adult cats.

The majority of cats were presented to shelters by members of the general public, and the most common admission type was as a stray. The second

most common type of admission was owner-surrendered. Council admission made up the next most significant proportion of admissions. This was consistent across states with the exception of Victoria, where the proportion of council admissions were approximately the same as stray admissions, although cats were mostly presented by members of the general public.

Of owner-surrendered cats, most were surrendered for owner-related reasons (reasons that were based on issues separate from the cat itself i.e. divorce, moving house, no time etc). When owner-related surrender reasons were examined by age (adult or kitten) there were noticeable differences in the top three owner-related reasons for surrender. The most common owner-related reason for adult cat surrender was unavailability of accommodation (no cats allowed), and for kittens, it related to being the last of an owned litter. Interestingly, behaviour only accounted for 4% of cat surrenders. The most common behavioural reason for surrender, regardless of age, was inappropriate elimination.

Admission patterns for kittens were found to be seasonal, however, there was no statistical difference between months in adult cat admissions.

OUTCOMES FOR CATS

Expectedly, the most common outcome to cat admission was euthanasia. When statistically analysed, the risk of euthanasia was higher for adult cats compared to kittens, however well over 50% of kittens were euthanised regardless of having a lower risk. Kittens were also more likely to be adopted than adult cats. Reclaim rates were very low for both, but particularly for kittens.

The most common reason for euthanasia was medical reasons, followed by age. Cat flu was by far the most likely medical reason for euthanasia and being too young was the most likely age-related reason.

DESEXING

Approximately one third of all admissions were categorised as being desexed prior to admission and there was no difference in the percentage of males and females that were desexed. Just under half of owner-surrendered cats, were categorised as being desexed prior to admission whereas approximately a quarter of stray admissions were categorised as de-sexed.

When this was analysed by state there were some noticeable differences in the percentages of cats desexed prior to admission.

MICROCHIPPING

Of all cat admissions, 29% were categorised as being microchipped prior to admission (30% of kittens

and 28% of adult cats). The apparent prevalence of microchipped cats prior to admission recorded in our study was unexpectedly high relative to results from previous research. Marston and Bennett (2009) reported that only 1.5% of cats admitted to a Melbourne shelter had a microchip detected on admission. It was concluded after interviews were conducted with shelter staff that the collection and classification method of microchip data led to cats being erroneously classified as being microchipped prior to admission and therefore our results were an overestimation. However, as only 5% of microchipped cats were reclaimed, this indicates that microchipping had very little to do with reclaim rates from RSPCA shelters.

FERAL CATS

Of all cat admissions in this study, 10% were categorised as feral. The prevalence of feral admissions varied between states (Western Australia having the least feral cat admissions and South Australia having the most). The background of these cats is unknown, and feral categorisation is a subjective measure that can vary between shelters and is based on behavioural observation. This, and further evidence that not all cats identified as feral were euthanised, makes the findings somewhat unreliable.

How do these findings help guide animal management in Australia?

In terms of cat admissions, knowing that most cats are coming to shelters and pounds via members of the general public indicates that continued public education in responsible pet



ownership is fundamental to achieving reductions in shelter admissions. In terms of owned cats that are surrendered to shelters, low desexing rates compared to the reported percentage of owned cats that are not surrendered (>90% of owned cats are reported as being desexed (McHarg, Baldock et al. 1995; Toribio, Norris et al. 2009; The Queensland State Government 2010)) suggest that either there is something different about the group of people and cats that are surrendered to shelters, or that the desexing message is not getting through to people. Low desexing rates, even among owner-surrendered cats in states where desexing is mandatory; a high percentage of kitten admissions, and the fact that the second most common reason for being euthanised was for being too young indicates that there are still many cats not being desexed until after they have produced a litter.

The Australian Capital Territory is currently the only Australian state that has enacted mandatory desexing of cats. All cats must be de-sexed by the age of 6 months. The percentage of owner-surrendered cats over 6 months of age that were desexed in the Australian Capital Territory RSPCA shelter was almost as high as the reported percentage of owned domestic cats that are desexed. This lends further support to the idea that cat owners are not desexing pet cats until after they are able to reproduce. Cat owners are obviously complying with legislative requirements to a point (i.e. they eventually desex their cats), however this compliance is not occurring in a timely manner and is therefore preventing the legislative requirements achieving the desired outcome. A U.S. study reported that although the number of kittens produced by cats, that were eventually de-sexed, was slightly less than those cats that had never been desexed, it was not statistically different (Manning and Rowan 1992; Marsh 2010).

Stray cat admissions made up the largest portion of admissions to shelters in our study. This is important information because if stray cat admissions are in actuality un-owned, free-roaming cats that will tolerate human interaction, then management strategies that focus on owned cats (i.e. desexing and microchipping), may have little to no effect on the stray population. It is plausible, however, that many stray cats admitted to shelters are in fact part of the semi-owned cat population (Toukhsati, Bennett et al. 2007). All stray cats in our study were presented to shelters by members of the public, a quarter of stray admissions were desexed, and statistical analyses revealed that when all variables are accounted for, stray cats are just as likely as owner surrendered cats to be re-homed as an outcome to shelter admission. This means that many stray cats are untroubled by human contact and may be suitable for re-homing. More research is clearly needed to

understand the stray cat population in Australia and the people that support the semi-owned population without taking on ownership responsibilities.

The low reclaim rate recorded in this study was concerning. Although microchipping data was not strong and potentially over-reported in our study, only a very small number of microchipped cats were reclaimed. This indicates that reclaim rates cannot be attributed to microchipping, regardless of data quality. The Queensland Government introduced mandatory microchipping for cats state-wide in 2009 at great expense (approximately \$1million was spent in the first year) (Queensland Government Department of Infrastructure and Planning 2010). Although it is too soon to tell whether this has impacted shelter admissions, if microchipping of cats is not increasing reclaims in shelters and pounds, then other management strategies, education or action are required.

The availability of accurate and comparable data from shelters limited the strength of this study in analysing the effects of microchipping, age and sociability on cat admissions and outcomes of shelter admission. This highlights the importance of good record keeping and suggests that if all shelters and pounds in Australia collected comparable data (with guidance from scientists), a wealth of relevant information would be available to inform councils about problem areas, required resources, and the likely ability of legislation to achieve desired outcomes.

Conclusions

The results of this study suggest several important things relevant to the management of excess cats in Australia. Firstly, animal management strategies that are introduced with the aim of reducing cat admissions to shelters and pounds should continue to focus on educating the public in responsible cat ownership and the importance of desexing their cat before sexual maturity to prevent unwanted litters.

Secondly, this paper demonstrates how science can be utilised to investigate the impact of introduced management strategies, and evaluate if and why current and past attempts have had limited successes. By revealing the limitations of microchipping and mandatory desexing (which in theory would be successful if compliance was 100%), current and future programs can be improved to ensure a higher chance of success. Further to this, if reliable data are available and rigorously examined scientifically, preventative evidence-based best practice can be formulated and implemented.

Thirdly, there is no 'one-size-fits-all' solution and different areas will require different actions and resources. Animal management is a complicated

field that requires both adequate resources and knowledge to be effective. For example, if fundamental information about a population is not known, and resources to effectively implement or enforce management strategies are not available, it is very difficult to facilitate and effect change. Scientists and animal management staff need to continue to work together to educate the public and continually evaluate management strategies in dealing with excess pets in the community.

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Corinne is currently a PhD student with The Centre for Companion Animal Health, in the University of Queensland Vet School. Her research is focussed on reducing the unwanted and stray cat population in Australia. In collaboration with the RSPCA and the Anthrozoology Research Group, Corinne is looking to investigate the cat population entering animal shelters and which cats are at highest risk of euthanasia on a national level.



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