



## Mandatory Desexing

### Executive Summary

1. Examples of mandatory desexing have failed to produce positive outcomes in either the USA or Australia.
2. Mandatory desexing of owned cats to combat overpopulation in shelters is misguided for a number of reasons.
  - A majority of cats relinquished to shelters in Australia are and probably have never been owned.
  - The majority of dogs entering shelters in Australia are relinquished because of behavioural issues
  - The number of owned cats and dogs in Australia is in steady decline
3. Given the importance of genetics in cat behaviour, the impact of mandatory desexing will be to reduce the gene pool of genetically good natured cats raised by responsible owners.
4. The AVA recommends the collection of data on animals in shelters to provide clear indications of the real reasons animals are entering shelters and are being destroyed.
5. The AVA supports voluntary desexing together with community education programs, identification, microchipping, registration and healthcare, all of which have been proven successful in managing pet populations in the past.

## Discussion

The role of desexing in preventing unwanted animals has been the subject of considerable debate over the past few years. The cause of this debate is not whether desexing is a useful tool in managing pet populations – history demonstrates that it has been highly successful [BIS Shrapnel, 2006] because pet populations are no longer increasing.

The cause of this debate is whether *mandatory desexing* will provide *additional* improvement to the status quo.

The AVA's position on desexing is as follows:

The Australian Veterinary Association (AVA) supports desexing of companion animals.

Desexing is important in population control and has other benefits for the behaviour and health of animals. In general, the AVA does not support compulsory desexing, and considers that owner education is the most effective approach to encouraging owners to have their pets desexed.

The logic behind the case for mandatory desexing appears to be:

If fewer animals are capable of reproducing, then fewer animals will be born, and fewer animals will be unwanted or not find homes, and so fewer will enter shelters, pounds and rescue organisations, and fewer will end up being euthanased.

A higher proportion of animals will be wanted, will be responsibly owned, and will not end up being unwanted or abandoned in shelters. The ultimate goal – fewer animals dying before their time will be realised. And how to achieve a lower birth rate? By increasing the proportion of animals desexed. And how to make them get desexed? Make desexing mandated by law.

Unfortunately, this apparently simple solution has failed where it has been tried, including in Australia and will fail if introduced more widely.

Mandatory desexing is easy to call for and appears, on the surface, to be a logical solution to high euthanasia levels in shelters and pounds. Theoretical modelling and real-world evidence however, strongly suggests that the logic is fundamentally flawed.

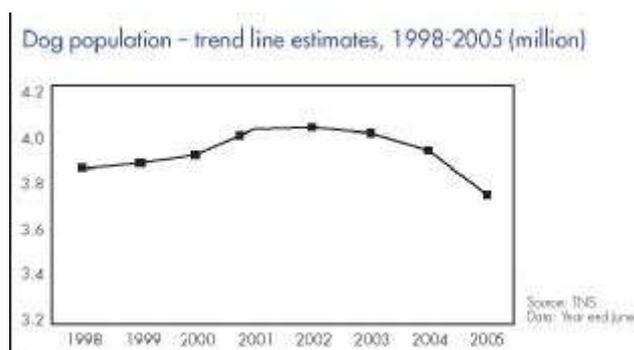
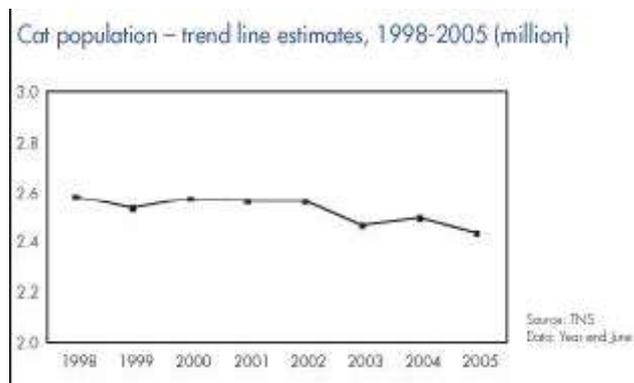
## Theoretical modelling

Theoretical modelling explains why an increase in current desexing rates by mandating the practice will fail to achieve the desired outcome – that is, fewer animals euthanased in shelters.

Before discussing the real world experience, it is important to understand the science behind the story. The Australian Veterinary Association is an association of professional scientists and despite the consequences of mandatory desexing meaning more income through increased case load for practising veterinarians, the AVA still does not support mandatory desexing. The concept fails on scientific grounds. What follows are some key scientific concepts which underpin the AVA's position.

### 1. Cat and dog population dynamics

Annual national surveys of pet owners reveal an irrefutable finding: owned cat and dog numbers are in steady decline. Cats have dropped from 3.2 million cats in households in 1988 to 2.3 million cats in 2006. Dogs dropped from 4 million dogs in households in 2000 to 3.75 million in 2006 [BIS Shrapnel, 2006].



Unlike most other countries, Australia's owned pet populations have failed to keep pace with human population growth. Rather than a pet population "explosion", Australia's pet populations are no longer increasing and are stable or in decline.

### 2. Zero population growth.

Population modelling undertaken in several studies [Nassar, Mosier and Williams, 1984] [Nassar R, Mosier J. 1982] [Baldock, FC, Alexander, L & More, SJ, 2003] has found that in order to achieve stable populations of dogs and cats, 76-88% of female cats should be desexed, and 66-77% of female dogs should be desexed.

Surveys of desexing rates of owned animals indicate that in most areas of Australia, these Zero Population Growth thresholds have been approached or exceeded. This goes some way to explain why owned pet populations are no longer increasing.

### 3. Cat sub-populations

There are three recognised subpopulations of cats, divided along ecological lines: *owned*, *stray* and *feral*. (Jarman & van der Lee, 1993) It is important to realise that although surveys of cat and dog numbers [BIS Shrapnel, 2006] and desexing capture data on the owned population, shelter populations represent data captured across the *entire spectrum of sub-populations*.

### 4. Reasons for surrender

Although often cited as the primary reason for animal relinquishment, 'overpopulation' does not represent the dominant factor in surveys that have investigated reasons for surrender.

An American study [Salman, New, Scarlett, Kass, Ruch-Gallie & Hetts, 1998] found 71 reasons for owner relinquishment of cats and dogs, where 'overpopulation' represented only 8% of this relinquished population. Other studies have also found that owner relinquishment was a minor contributor to shelter populations. [Proceedings for AIAM, Marston, Bennett, Toukhasti, 2007)

## Experience with mandatory desexing: overseas

Experience in several overseas jurisdictions demonstrates that mandatory desexing is not a successful strategy.

Numerous counties in the USA have at one time mandated desexing of pets. It has been generally unsuccessful, and very wasteful of sparse animal management

Jurisdiction	Legislation	Legislation
San Mateo County, California	Mandatory desexing, 1991	<ul style="list-style-type: none"> <li>▪ Dog deaths in shelters increased 126%</li> <li>▪ Cat deaths in shelters increased 86%</li> <li>▪ Licences (registration) decreased 35%</li> </ul>
Los Angeles, California	Mandatory desexing, 2000	<ul style="list-style-type: none"> <li>▪ Decline in dog licencing compliance</li> <li>▪ Animal control budget increased 269% from \$6.7m to \$18.0m</li> </ul>
Capitola, California	Mandatory desexing, 1991	<ul style="list-style-type: none"> <li>▪ Licensing compliance has dropped significantly</li> </ul>
Maryland, Montgomery County	Mandatory desexing - REPEALED	<ul style="list-style-type: none"> <li>▪ An estimated 50% decline in licensing compliance</li> <li>▪ Euthanasia rate declined faster before the law (34%) compared to after the introduction of the law (21.5%)</li> </ul>
Fort Worth, Texas	Mandatory desexing – REPEALED	<ul style="list-style-type: none"> <li>▪ Reduced licensing compliance</li> <li>▪ Reduced rabies vaccination</li> <li>▪ Increase in rabies disease</li> </ul>
King County, Washington	Mandatory desexing with permit systems (“spay or pay”), 1992	<ul style="list-style-type: none"> <li>▪ Reduced licensing compliance</li> <li>▪ Increased animal management costs by 56.8%, with a concomitant increase in revenue of 43.2%</li> <li>▪ Euthanasia rates fell at a slower rate after passage of the ordinance</li> <li>▪ Increase in adoptions</li> </ul>
Aurora, Colorado	Mandatory desexing with permit systems (“spay or pay”)	<ul style="list-style-type: none"> <li>▪ Reduced licensing compliance</li> </ul>

dollars. [Allen L. 2006]

## Experience with mandatory desexing: Australia

In 2001, the Australian Capital Territory (ACT) became the first Australian jurisdiction to mandate the desexing of all dogs and cats by six months of age unless the owner obtained a permit to keep the animal "intact" [ACT Domestic Animals Act 2000 Pt 74]. The cost of the permit was higher than the price of desexing for almost all dogs and cats to make compliance more attractive.

There are only two shelters for dogs and cats in the ACT – the ACT Dog Pound run by Domestic Animal Services (ACT Government - dogs only), and RSPCA ACT (dogs, cats and most other species). There are a small number of rescue organisations that deal with relatively insignificant numbers of animals. In 2007, data was collected from the RSPCA ACT and from RSPCA's national website, to compare the impact of mandatory desexing legislation after 6 years. [AVACCAC Cats 2007]

Analysis of this data is summarized in the following table.

<b>CATS:</b>	<b>Before 2001 mandatory desexing legislation</b>	<b>After 2001 mandatory desexing legislation</b>
<b>Intake to shelters</b>	Increasing to 1998 then decreasing to 2001	No further improvement to date
<b>Return to owners</b>	Decreasing from 1997 to 2001	No further improvement to date
<b>Adoption rates</b>	Variable	No improvement to date
<b>Euthanasia</b>	Increasing to 1998, then decreasing to 2001	No further improvement to date

There has been no positive impact associated with the introduction of the legislation. Trends in cat intake and euthanasia in the ACT RSPCA shelter parallel those for NSW (which has no mandatory desexing legislation) and for Australia as a whole.

<b>DOGS:</b>	<b>Before 2001 mandatory desexing legislation</b>	<b>After 2001 mandatory desexing legislation</b>
<b>Intake to shelters</b>	Increasing to 2000 then decreasing	Some decrease
<b>Return to owners</b>	Decreasing from 1997 to 2001	Increasing
<b>Adoption rates</b>	Variable	No improvement to date
<b>Euthanasia</b>	Increasing to 1998 then decreasing to 2001	No further improvement to date

RSPCA ACT CEO Michael Linke reported that "In 2006 no cat or dog was euthanased as a result of over population in the shelter." [Linke M 2007]

Why has mandatory desexing failed to achieve its intended outcome – namely the reduction of euthanasia – in the ACT? The simplest explanation is as follows:

**CATS:**

The majority of cats relinquished to the shelter were never owned. They were free-living stray, colony and feral cats who were unsuitable to be pets. Because they were not owned, they were not desexed. Because they were unsuited to be pets, they were euthanased. This situation is similar to that reported in the proceedings for AIAM, 2007. From 2005 to 2006, a total of 25, 810 admissions were analysed. The majority (78.51%) of cats admitted as stray cats, either by Animal Management officers (AMOs) or the public. Nearly three-quarters (73.33%) of admissions to the participating shelters involved multiple animals, either colonies of cats, mothers with kittens or multiple kittens admitted without their mother. (Marston, Bennett, Toukhasti, 2007)

In the ACT in 2006:

- 16% of the intake of cats were euthanased because they were feral (39% of cat euthanasia's)
- 8% of the intake were euthanased for behavioural reasons (21% of euthanasia's) and
- 16% of the intake of cats were euthanased for health reasons (40% of euthanasia's)
- No cats were euthanased due to overpopulation [Linke, 2007]

RSPCA shelter staff agree [pers. comm.] that the majority of animals euthanased are feral, unowned or semi-owned (street cats, colony cats, residents in factories, educational institutions, hospitals, and residential complexes for the disadvantaged).

Of those cats in the ACT that are owned, desexing rates are high. As long ago as 1993 [Paxton D. 1994], ACT enjoyed a rate of desexing (92%) higher than that determined to result in zero population growth (88% of female pet cats). [Nasser R, Mosier J. 1982] This is an excellent level of compliance and it seems unlikely that compulsion would dramatically increase this number.

In Australia in 2003, the percentage of pet (i.e. owned) cats desexed was 93.6% of females and 91.1% of males. The percentage of desexed pet cats has been steadily rising. [Baldock, FC, Alexander, L & More, SJ, 2003]

## **DOGS:**

The majority of dogs entering shelters were relinquished for behavioural reasons. They had been owned but the human-pet relationship had failed.

RSPCA ACT employs veterinarians, veterinary nurses and animal behaviourists. Animals euthanased therefore represent those which were unsuitable to be rehabilitated - those whose health or behaviour problems were so significant that return to health or amelioration of behaviour problem was deemed impossible or impractical, despite the intervention of appropriately trained and dedicated health care professionals.

### **Inadvertent negative consequences of mandatory desexing: Cats**

One highly undesirable effect of mandatory desexing legislation is that the cats which are most likely to be desexed under the legislation are those of responsible owners which have more likely been selected, raised and trained in ways to make them more behaviourally acceptable and more suited to pet ownership.

Given the importance of genetics in cat behaviour [Karsh and Turner, 1988] [Overall K 1997], the impact of mandatory desexing will be to reduce the gene pool of genetically good natured cats while permitting genetically less suitable cats (feral) to carry on breeding. This will precipitate the behavioural (and probably health) deterioration of the Australian owned pet cat population.

High rates of desexing amongst owned cats (see above) in response to community pressure, education and veterinary advice, may be responsible for the dramatic decline in Australia's cat population over the last decade [Baldock, FC, Alexander, L & More, SJ, 2003] . As this decline is forecast to continue into the foreseeable future, it is likely to limit access to pets.

### **Inadvertent negative consequences of mandatory desexing: Dogs**

While it may be possible to reduce the number of dogs entering shelters and pounds by vigorous enforcement of mandatory desexing legislation, this is unlikely to reduce the number of dogs' euthanased. The majority of dogs' euthanased in well run shelters are for behavioural reasons and these shelters perform a worthwhile community service. In this case, mandatory desexing legislation would prove a costly waste of resources.

## Solving the problem of euthanasia of animals in shelters

The single most useful recommendation is that the collection of useful shelter data in a consistent form and its reporting to a central authority should be actively encouraged and possibly mandated.

Without such data, no measure introduced to reduce the suffering of animals or to enhance animal ownership can be judged.

When such data produces a clear indication of the *reasons* for animals entering shelters and the *reasons* some of them are destroyed, then policy and programs can be developed. An example of a sensible approach would be as follows:

### **DOGS:**

*Dominant reason for entry to shelter: owner relinquishment due to behaviour problem(s).*

*The main tools to reduce the intake and euthanasia rate of dogs in pounds and shelters:*

- *increase the proportion of dogs identified*
- *provide sound behavioural advice to assist owners with more appropriate pet selection*
- *give owners skills in raising and training their puppies*
- *provide expertise in remedial behavioural training*
- *conduct temperament assessments in shelters*

### **CATS:**

*Dominant reason for entry to shelter: cats were never owned. Stray or feral.*

*The main tools to reduce the intake and euthanasia rate of cats in pounds and shelters:*

- *increase the proportion of cats identified*
- *target the feral and stray cat population with scientifically sound and community accepted strategies which may include poisoning (a cat specific toxin is nearing release in Victoria) and or Trap-Neuter- Release programs. More research and community debate is required to find the most successful and best accepted methods in different areas of Australia.*
- *cat owners: better education in cat selection, raising, keeping conditions and temperament and behavioural training.*
- *government and industry groups (including veterinarians and the welfare sector) need to be more proactive in this regard.*

Vigorous enforcement of mandatory desexing legislation with respect to cats will not reduce the number of feral and unowned cats entering or being euthanased in shelters.

## **Alternatives to mandatory desexing**

The arguments in favour of mandatory desexing are built on assumptions and the science of the real world indicates that these assumptions are flawed.

To address the problem of animals' euthanased in shelters, it is essential that the causes for their situation are understood and quantified before introducing any legislation. The evidence from around Australia and internationally indicates the 'overpopulation' model is too simplistic, especially in the face of a declining owned pet population.

A complex problem has a complex solution, and the solution must start with a quantified description of the problem.

Until that occurs, voluntary desexing should be promoted through community education programs and coupled with other animal management tools such as identification, microchipping, registration, healthcare, etc. This approach has been highly successful in managing the owned pet population to a point where it is no longer increasing.

### **Summary**

Rather than follow the failed ACT experience or tread the expensive and ineffectual USA path, it would be better to take measures that would encourage voluntary desexing of pets not intended for breeding (especially by reduced price registration), together with enhanced education programs and serious efforts to control the unowned cat population.

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