Routledge Handbook of Animal Welfare

Andrew Knight, Clive Phillips, Paula Sparks

Canines and felines

Publication details
Heather Bacon
Published online on: 15 Aug 2022

How to cite :- Heather Bacon. 15 Aug 2022, Canines and felines from: Routledge Handbook of Animal Welfare Routledge
Accessed on: 05 Oct 2023

PLEASE SCROLL DOWN FOR DOCUMENT

Full terms and conditions of use: https://www.routledgehandbooks.com/legal-notices/terms

This Document PDF may be used for research, teaching and private study purposes. Any substantial or systematic reproductions, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The publisher shall not be liable for an loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.
Introduction

Cats and dog have provided humans with companionship, pest control, labour, sensory and emotional support, and protection, for thousands of years. Whilst our unique and often emotional relationships with cats and dogs may be incredibly important to a wide variety of people, it’s also important that our affection does not cloud our ability to objectively assess and provide for their species-specific and individual needs. This chapter will outline some of the welfare challenges faced by cats and dogs around the world, and has been divided into two primary themes: issues relating to physically or behaviourally restricted cats and dogs, and issues relating to non-restricted cats and dogs. Restricted cats and dogs are those typically considered as ‘owned’ in the Western world – these are cats and dogs living under permanent or long-term human guardianship, who are often well provided for physically but who may be behaviourally much more restricted and limited to a home/garden/kennel, than free-roaming dogs. I have not selected the term ‘owned’ to represent these cats and dogs, as in many communities in parts of Europe, Asia, Central/South America, and Africa, it is typical for cats and dogs to move freely outdoors, unrestricted, even when they are owned or fed and cared for by a human guardian. Whilst there is overlap between these groups, and for practical purposes they should be considered as a fluid, contiguous group where individual animals transition from one group to another, their welfare issues are often related to the level of human intervention they receive. Because of this, I consider welfare issues faced by each of these two groups before moving to more general welfare problems faced by cats and dogs, regardless of their roles in society.

Restricted cats and dogs

Restricted cats and dogs are those that we may typically consider as pets, working or sporting animals. They spend the majority of their time with their activities managed and limited by their human caregivers. However, even within this grouping there is variation in their level of restriction and experiences. For example, pet cats may be kept indoor only, or with access to both the indoors and outdoors, or occasionally outdoors only. These different levels of restriction present different behavioural and physical opportunities and risks and therefore generate different welfare problems. Cats kept indoors are often more behaviourally restricted, and thus may experi-
ence negative emotional states such as boredom or frustration. They may also be less active and more prone to weight gain and health problems associated with obesity. Cats with free-choice access to the outdoors, e.g., through a cat flap, are likely have good behavioural welfare as choice and control are important to welfare. However, they – along with entirely outdoor cats – may be at increased risk of trauma, social conflict, and road traffic injuries. By physically restricting cats and dogs we restrict our pets in many ways, for example we choose what they eat, where they sleep, when they toilet, exercise, and socialise. Such high-level restriction is entirely normal in many human societies, but can create behavioural problems when the behavioural and physical needs of cats and dogs are unmet, and this may result in negative emotional experiences and the development of problem behaviours. In many cases we also restrict reproductive activity in our pets. Whilst this has many benefits, including reduced overpopulation problems and burden on animal shelters, it also confers some health benefits. In some cases, it may also create new health and welfare problems. Whilst the spay/neutering of cats is generally recommended from the age of about 16 weeks, with no adverse effects reported, the sterilisation of male dogs and bitches is more complex, with very variable breed-specific risks that are only recently being explored (Hart et al., 2020a-b). Thus, in order to ensure good animal welfare, the restriction of behaviours and physical attributes of pet cats and dogs should be considered on an individual basis.

**Sourcing**

An animal’s future behaviour, health, and welfare will be influenced both by its genetic make-up, and by its early life experiences. Temperament traits such as confidence and anxiety have been shown to have a level of heritability and may influence later behaviour and so breeding from parents that are temperamentally suitable is important. Additionally, both the mother’s experience whilst pregnant and the perinatal environment may influence the later behaviours of the offspring. For example, stressful experiences during pregnancy have been shown to influence the behaviour and responses of the offspring to adverse experiences. For example, young animals born to stressed mothers are more likely to have increased sensitivity to pain, anxiety behaviours, and are more likely to develop abnormal behaviours (Braastad, 1998, Latham and Mason, 2008). It is for these reasons that obtaining a puppy or kitten from a reputable breeder raising animals bred from temperamentally stable parents, in a stimulating but not overtly fear-inducing environment (Rooney Clark et al., 2016), is important. Factors such as unpredictable handling, transport, and fear-provoking should be avoided because the experiences of dogs during their first year of life is crucial in determining their later behaviour and temperament (Foyer, Bjällerhag et al., 2014, Wauthier and Williams, 2018). In some regions (e.g., Europe, parts of the US), there is a large trade in puppies (which may be international), bred in intensive conditions. Such puppies may be at particular risk of such fear-inducing factors, as well as increased risks of transmissible diseases and parasites. The focus within the ‘puppy mills’ in which many are bred, is often on cost-minimisation, rather than optimal provision of preventative healthcare such as vaccination, parasiticides, or appropriate behavioural development and socialisation.

There are many commercial production systems including breeders and retailers that may supply puppies and kittens to meet a variety of commercial preferences, e.g., extreme conformation, particular aesthetics, etc. Puppies produced from commercial establishments have been shown to have poorer health and behavioural outcomes than those raised in the home (McMillan, 2017). Whilst shelters are a reputable and ethical way of sourcing a puppy or kitten, it is important that adequate socialisation opportunities and complex environments are provided.

Aversive experiences during early life such as pain, stress, or a lack of complexity will affect development and influence later behaviour. Due to the neuroplasticity of the neonatal nervous
system, pain experiences at a young age can have lifelong impacts on an individual’s behaviour and responses to future experiences (Schwaller and Fitzgerald, 2014). The socialisation window is a developmental period where young animals are able to learn appropriate social behaviours and become accustomed to new experiences. It occurs at approximately 4–16 weeks of age in puppies and 2–7 weeks of age in kittens. For puppies this is a period that would be affected by the pain experience associated with tail docking or ear cropping, potentially reducing exploratory and social behaviours and impeding appropriate social development. Inflicting deliberate unpleasant experiences such as cosmetic procedures like tail docking or ear cropping during this neonatal period has also been shown to influence pain sensitivity throughout life (Mellor, 2018, Reyes-Sotelo et al., 2020). Neonates have similar, if not increased, sensitivity to pain compared with adults (Noonan et al., 1996a, Fitzgerald and Beggs, 2001, Cameron et al., 2014) and an early pain experience may sensitise neonates to subsequent pain (Clark et al., 2014).

Convenience surgical procedures

A variety of elective surgical procedures may negatively impact the welfare of pet cats and dogs. Appendages such as tails, bony dew claws, and toes are often functional with complex anatomy including bone, nerves, muscle, and connective tissue. Surgical amputation of the tail in puppies results in severe pain (Noonan et al., 1996a), as does onychectomy (declawing) in cats. Transection of the nerves in the tail may result in neuroma formation. Neuromas are swellings of transected nerve endings. These may be associated with neuropathic pain or abnormalities which may include numbness, tingling, hypersensitivity, and actual pain, all of which can result in chronically poor welfare and self-injurious behaviour such as chewing or biting at animals’ own bodies. Neuroma formation and pain-related behaviour, including severe self-injury, are documented in dogs after docking (Gross and Carr, 1990). In humans chronic pain associated with amputation occurs in 30–50% of cases (Kehlet et al., n.d.). The development of neuropathic pain can be prevented only by the administration of appropriate analgesic and anaesthetic drugs, including specifically ketamine (Wagner et al. 2002, Goldberg, 2017, Tsui and Chu, 2017) plus a local anaesthetic, but in one study only 10% of veterinarians used anaesthetics or analgesics in conjunction with tail docking of puppies (Noonan et al., 1996b). Only 0.59% of the total dog population visiting a veterinary practice are affected by tail injury, and only one in five of these tail injuries resulted in amputation, meaning that 0.118% (one in a thousand) dogs visiting a veterinary practice require therapeutic tail amputation (Cameron et al., 2014), with appropriate analgesia and anaesthesia delivered to minimise long-term welfare consequences. This risk should be balanced against the risk of acute pain in 100% of puppies that experience docking, and the potential chronic postsurgical pain in docked puppies (Bain, 2020). There are also no known benefits to ear cropping in dogs as it has not been shown to reduce the prevalence of ear infection or injury (Bain, 2020). In cats onychectomy is associated with significant pain (Wilson and Pascoe, 2016), increased lameness and house-soiling (potentially due to the discomfort of stepping on litter), indicative of chronic pain states (Tobias, 1994, Gerard et al., 2016).

Social communication in dogs relies on proper observation of tail signalling and ear positioning, suggesting that tail docking and ear cropping may impair social communication in dogs (Leaver and Reimchen, 2008), and this may contribute to behavioural problems. Similarly in cats, locomotion, climbing, and scratching are important elements of the normal feline behavioural repertoire. Frustration of behaviours has been suggested to be detrimental to emotional well-being and welfare (Hargrave, 2015). Behavioural problems have been shown to be significant and common indicators of welfare problems for pet dogs and cats (Rioja-Lang et al., 2019, Rioja-Lang et al., 2020, Yu et al., 2021). The lack of welfare benefits and the likely welfare detriments
of cosmetic procedures mean they are ethically difficult to justify, and in all cases, veterinarians should consider their duty to their patient’s welfare.

**Breeding**

Selective breeding of pet cats and dogs has resulted in a number of genetic and conformational disorders that negatively impact welfare. Some conformational disorders are rooted in genetics, e.g., the conformational changes seen in brachycephalic breeds are a result of selection that causes the expression of genes associated with pathology (Mansour et al., 2018), and so these groups of disorders are not mutually exclusive. Selected examples of these are shown in Table 18.1 (examples adapted from (Universities Federation for Animal Welfare, 2021)).

**Nutritional management**

Both dogs and cats have specific nutritional needs and require carefully balanced diets formulated for their individual species’ needs. Cats are obligate carnivores and have an absolute requirement for taurine, an amino acid that may be derived from animal or synthetic sources. Alternatively, despite being classed as ‘carnivores’ dogs do not have an obligate requirement for meat, and the dietary preferences of domestic dogs are considerably different to their wild ancestors. Dogs on average choose to consume most of their calories from fat and then carbohydrate, with protein sources least preferred. Conversely cats choose to consume most of their calories from carbohydrate and then protein sources (Hall et al., 2018). These dietary preferences are interesting in the context of recent trends for bones and raw food (BARF) diets which often focus on high-protein ingredients. Such diets claim to be more ‘natural’, but are often modelled on the dietary preferences of ancestor species such as wolves, rather than those of domesticated dogs and cats. Additionally, such diets raise animal welfare and public health concerns as they increase the shedding of pathogenic bacteria from pet animals, and have been associated with infectious disease outbreaks in people and pets (Davies et al., 2019, O’Halloran et al., 2021). Cats fed fish-based raw diets may be at risk of thiaminase deficiency.

Similarly, a recent trend for ‘grain-free’ diets has been associated with the development of heart disease that improves upon conversion to a more typical commercial diet, in pet dog populations (Freid et al., 2021). Increasingly, obesity of pet dogs and cats is a significant welfare problem associated with a range of health problems as well as impacting on behavioural health and overall quality of life. Managing obesity in pet cats and dogs is challenging as it is a multifactorial and social issue, similarly to obesity in children.

**Veterinary visits and medical considerations**

Visits to the veterinary clinic are often stressful for a pet cat or dog as they may include a stressful or uncomfortable journey, a waiting room exposed to strange animals’ sights and sounds, and unpleasant or painful experiences, e.g., vaccinations, microchipping, neutering. These aversive experiences may result in a learned fear response which may be a problem for future visits. Fear of the veterinary clinic may result in the cat or dog being forcefully restrained or muzzled which exacerbates the stressful experience. This is not only unpleasant for the animal but may be a reason for owners not to seek timely veterinary attention, and thus may result in delayed treatment or poor owner compliance with treatment. These negative experiences can be mitigated by veterinary professionals spending time “building the welfare bank account” (Fisher, 2015). To build the welfare bank account, owners should be advised to bring their pet to the
Table 18.1 Selected examples of genetic or conformational disorders in dogs and cats

<table>
<thead>
<tr>
<th>Dogs</th>
<th>Conformational disorders</th>
<th>Impacts on animal welfare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genetic disorders</td>
<td>Impacts on animal welfare</td>
<td>Conformational disorders</td>
</tr>
<tr>
<td>Bedlington Terrier: Copper storage hepatopathy</td>
<td>Variable, ranging from mild in the early stages of disease to a severe reduction in the quality of life in the later stages, mainly due to animals feeling unwell</td>
<td>French bulldogs, English bulldogs, Pugs, etc.: Brachycephalic Obstructive airway syndrome</td>
</tr>
<tr>
<td>Dalmation, hyperuricosuria</td>
<td>Hyperuricosuria results in the formation of urate stones. Welfare issues range from moderate cystitis to complete obstruction of the urinary tract causing severe pain</td>
<td>Pekinese, Pug, French bulldog, Brachycephalic ocular syndrome</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cats</th>
<th>Conformational disorders</th>
<th>Impacts on animal welfare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genetic disorders</td>
<td>Impacts to animal welfare</td>
<td>Conformational disorders</td>
</tr>
<tr>
<td>Devon rex, Sphynx: Hereditary myopathy</td>
<td>Generalised muscle weakness caused by an abnormality in the transmission of signals from nerves to muscles. Affected cats may show signs of muscle weakness or be unable to walk and exercise normally. They may show signs such as muscle tremors, fatigue and collapse, and may be at risk of choking</td>
<td>Scottish Fold: Osteochondrodysplasia</td>
</tr>
</tbody>
</table>

(Continued)
<table>
<thead>
<tr>
<th>Genetic disorders</th>
<th>Impacts on animal welfare</th>
<th>Conformational disorders</th>
<th>Impacts on animal welfare</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Shorthair, Maine</td>
<td>Hypertrophic cardiomyopathy occurs when the thickness of the heart wall increases to an abnormal level. This thickening impedes normal heart contraction as the thickened wall does not function properly, resulting in heart failure. Heart failure is progressive and worsens over time, eventually leading to death due to the heart failing to pump blood adequately around the body or from the effects of a thromboembolus, or more slowly after progressive complications caused by poor circulation and fluid build-up in the chest and lungs affecting breathing.</td>
<td>Manx: Manx syndrome/spina bifida</td>
<td>The genetic mutation that causes Manx (tail-less) cats also frequently causes severe disease consequences because of its effects on the development of the spine and spinal cord. The various forms of spina bifida which commonly occur lead to complications which can cause partial paralysis, prevent normal behaviours, cause incontinence, and lead to painful infections.</td>
</tr>
</tbody>
</table>
Canines and felines

veterinary clinic regularly, even if they have no medical concerns. This allows gentle exposure of the cat or dog to the staff and environment (weight or development checks provide the ideal opportunity for this type of interaction). Veterinary staff can pet and stroke the pet, if this is something he or she enjoys, and offer treats. Such activities start to develop a positive foundation and trusting relationship which may then offset any anxiety the pet has when actual treatments are needed. Many animals can cope with one stressor or trigger, but when several stressors are ‘stacked’ on top of each other, defensive aggression may occur. For example, a cat being forced into a carry box, transported in the car, placed next to a dog in the waiting room, then handled by the vet will experience multiple significant stressors in a short period and may well have exceeded its ability to cope even before the vet handles it, and the fairly benign experience of handling may be the ‘final straw’ for an animal that is already ‘trigger-stacked’. For these reasons, considering the pet’s experience when designing clinics and taking steps to minimise stressors (separate cat and dog waiting areas, pheromone diffusers – which can exert a calming effect, cat box shelving to place cats high up, etc.) can all help to improve the welfare of cat and dog patients.

Similarly, it is important that all members of the veterinary team are familiar with cat and dog behaviour and low-stress handling techniques, in order to ensure that a pet’s visit is not more stressful than needed. Both cats and dogs will display behaviours such as lip-licking and gaze-aversion that indicate they are stressed. These behaviours will escalate into threat-distancing behaviours include moving away, growling and aggression. The behavioural response to stress in dogs is often referred to as the “ladder of aggression” (Shepherd, 2009). By participating in schemes such as the International Society for Feline Medicine (ISFM) feline friendly practice scheme or ‘fear free’ training programmes, veterinary staff can ensure that clinical stressors are minimised, and animal welfare is protected within the clinical environment.

Another way that veterinary professionals can safeguard animal welfare is by minimising the cat or dog’s experiences of pain. Pain is a complex phenomenon and each individual animal will experience pain differently. Regardless of species, pain is best managed early and proactively as it has a significant impact on animal welfare. It is much more difficult to control pain once it is well established than it is to manage pain before it becomes severe. Preventing pain should always be the aim of the analgesia plan – surgical pain is 100% predictable and therefore a good analgesic plan should be in place for every patient, prior to undertaking any surgical procedure. Pre-emptive analgesia is the treatment of pain using analgesic drugs before the introduction of a potentially painful stimulus (i.e., surgery). Pre-emptive analgesia reduces the nociceptive input to the spinal cord, thus reducing peripheral and central sensitisation. This then reduces peri- and post-operative pain and hyperalgesia (increased pain perception). Similarly chronic pain due to degenerative conditions should be proactively managed and not simply considered as an unavoidable consequence of ‘old age’. Dental disease and osteoarthritis are common sources of chronic pain in pet animals and may create significant welfare problems if left untreated. Pain from such degenerative conditions may be caused by inflammation (inflammatory pain), tissue damage (nociceptive pain), or nerve damage (neuropathic pain). A pet dog or cat may actually experience more than one type of pain concurrently, and thus multi-modal analgesia may be required to adequately manage the different types of pain. Different classes of drugs act at different sites along the pain pathway and thus can often be safely used in combination to provide optimal analgesia. Additionally because pain is the result of central processing by the nervous system, mental stimulation, environmental enrichment, and positive emotional experiences may play a role in mitigating the pain experience, so owners should also be engaged in this process.
Quality of Life (QoL) issues

Providing good standards of veterinary hospice and palliative care to terminally ill cats and dogs is currently hindered by an inadequate evidence base to guide veterinarians. The American Animal Hospital Association/International Association for Animal Hospice and Palliative Care (AAHA/IAAHPC) End-of-Life Care Guidelines for Dogs and Cats produced in 2016 provide guidance on central issues including client communication and patient care. Various ethical perspectives on animal death and euthanasia have been described from “death is not a welfare issue” (Webster, 1995) and the pragmatic view that euthanasia literally means killing painlessly (regardless of the reason for doing so), to “death is a welfare issue” as the potential for future suffering does not universally justify pre-emptive euthanasia (Yeates, 2010) (see Chapter 13 for a fuller discussion of this issue). From a welfare science perspective, we are generally less concerned with quantity of an animal’s life and more concerned with the quality of that life and this remains the focus of animal welfare science research. The definition of, and decision-making around the acceptability of euthanasia, is primarily studied in the field of applied animal ethics, e.g. (Persson et al., 2020). In reality however, disentangling a pragmatic and pre-emptive approach to euthanasia, from the associated moral stress and emotional toll on the client and veterinary professionals, is challenging.

Working and service dogs and cats

The contribution that working dogs make to human society is undeniable – they provide assistance to people with disabilities, guard and herd livestock, protect and serve in the armed forces and police, ensure border security, and detect illegally trafficked drugs and other products. Even cats may provide services to human communities in terms of pest control, and as therapy animals in schools and residential settings. But how often do we consider the welfare of cats and dogs used in these ways? The life of a working dog varies enormously depending on the dog itself and the role it is expected to perform. For example, it may be considered that a working border collie engaged in shepherding work and field trials, and living with other dogs on a farm, is able to fulfil many aspects of its strongly motivated behavioural drives. In this scenario, work likely results in positive behavioural and emotional experiences. However, in some situations, such dogs may have primarily instrumental value, depending on the labour they provide, and as such a lack of comprehensive veterinary care or nutritional support could negatively impact on welfare (Littlewood and Mellor, 2016). Dogs trained to sniff out explosives or people, such as those used in war zones or natural disasters, may experience similar positive experiences through their work and the opportunity to satiate important behavioural drives. However, environmental stressors including extreme temperatures, low humidity, and the wearing of body armour may incur additional unpleasant physical experiences. On top of these welfare considerations, there is an additional ethical dilemma around the use of ‘innocent’ animals in such dangerous roles, where the risk of injury or death is apparent and the benefits to the dog are less obvious. Interestingly, we tend to be less ethically concerned with the use of support/assistance dogs for people with disabilities. In some situations it may be that such dogs actually lead lives of fairly significant behavioural restriction whilst working for long periods. In such cases it is important that the dogs get ‘time off’ to relax, play, and exercise. For visiting therapy dogs a working visit time of one hour is often suggested to ensure that dogs are not overly restricted or stressed, although in one survey of USA therapy dogs, around half of organisations surveyed did not offer any guidance on visit duration (Serpell et al., 2020).
Unrestricted cats and dogs

Cats and dogs roam freely in many parts of the world. Free-roaming offers animals significant behavioural choice, control, and complexity – the lack of which can cause significant behavioural and welfare problems in restricted pet animals, but it also generates risks including increased risk of physical trauma and illness. For example, free-roaming animals may be more at risk of infectious disease such as transmissible venereal tumours, increased risk of non-infectious disease, e.g., from toxin exposure or injury due to fights or road traffic accidents, and increased risk of environmental stressors, e.g., extremes of temperature, extremes of resource availability, etc. In many situations, cats and dogs free-roam but still rely on humans for resource provision either directly, for example, a human guardian providing food or shelter, or indirectly through scavenging garbage or sheltering in human-constructed dwellings or under vehicles. Animals may enter the free-roaming population from birth, or be relinquished, abandoned, or lost. Cats and dogs that are abandoned or lost often end up in the free-roaming population for at least a period of time. They may remain there or alternatively may be caught and removed from that population. Their welfare will depend on their experiences. Free-roaming dog and cat populations may be managed for multiple reasons (Table 18.2).

Management of dog and cat populations

There are multiple reasons to manage dog and cat populations (Table 18.2).

Two primary methods of stray animal population control are recommended by the European Convention for the Protection of Pet Animals of 1988 (Council of Europe, 1987): (1) catch and removal methods, and (2) Catch-Neuter-Return methods.

Catch and removal

Catch and removal methods are usually unsuccessful at managing dog populations in the long term. The two primary methods used are catch and cull, or catch and remove to a shelter. Neither approach addresses the underlying cause of dog overpopulation but simply mitigates to some extent the symptoms of dog or cat overpopulation. This approach is therefore usually unsuccessful.

Table 18.2 Why manage dog and cat populations?

<table>
<thead>
<tr>
<th>To protect public health</th>
<th>To address dog and cat suffering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bites</td>
<td>Malnutrition and dehydration</td>
</tr>
<tr>
<td>Road traffic accidents</td>
<td>Illness and injury</td>
</tr>
<tr>
<td>Fouling</td>
<td>Fear and distress (both from competition between dogs/cats but also aggression from people, including inhumane methods of dog/cat control)</td>
</tr>
<tr>
<td>Noise</td>
<td></td>
</tr>
<tr>
<td>Rabies cases</td>
<td></td>
</tr>
<tr>
<td>Nuisance complaints</td>
<td>Poor human–animal relationships</td>
</tr>
<tr>
<td>Poor human–animal relationships</td>
<td></td>
</tr>
</tbody>
</table>
CATCH AND CULL

Culling is the removal of all or part of a dog or cat population. Culling is ineffective in population control as stray dog or cat numbers are often supported by the breeding of owned dogs and cats, or by migration from other areas. Culling raises a variety of animal welfare and ethical problems. Enforcing extreme levels of population reduction by culling is logistically impractical and often ethically unacceptable due to the severe welfare consequences of typical culling methods (blunt force trauma, gassing, poison). Non-targeted culling will often remove far more healthy and friendly dogs and cats than sick or aggressive ones. This may inadvertently select for a more aggressive population, thus potentially increasing conflict with humans or other animals.

REMOVAL TO A SHELTER

Sheltering and or ‘rescue’ of free-roaming cats and dogs is often well-intentioned, but it is resource-heavy and may inadvertently create welfare problems as well as potentially ‘encouraging’ relinquishment by providing an easy disposal option for owners. Shelters should aim to provide secure and suitable environments for the maintenance of physical and psychological well-being of stray animals, until a suitable permanent home can be found.

Shelters should not provide a long-term lifestyle for dogs or cats as it may be very difficult to deliver good welfare in the shelter environment, e.g.:

- Shelter dogs need 20–25 minutes per day of exercise and positive human contact to reduce stress (Menor-Campos et al., 2011);
- Dogs in long-term kennelling may suffer damage to their hearing due to noise exposure (Scheifele et al., 2012);
- Cats may struggle with the change to a confined environment (Jongman, 2007);
- Cats may become highly stressed when housed in proximity to other cats (Ottway and Hawkins, 2003).

STRATEGIC REMOVAL/INDIVIDUAL EUTHANASIA

Strategic removal from a population may be necessary for dogs or cats suffering physical or behavioural conditions that adversely affect their welfare or pose a threat to humans, e.g., predatory aggression in dogs. Euthanasia for health or welfare reasons may be used to remove individuals but is unlikely to influence the overall population. In many cases shelters may utilise euthanasia as a management tool to ensure that limited resources are targeted most effectively towards dogs and cats with the greatest chances of rehoming. In others, shelters may have a no-kill policy and refuse to engage in euthanasia. Neither approach is universally right or wrong but should be appraised depending on the welfare impacts such strategies have on the cats and dogs. It may be posited that euthanasia (a ‘good death’) does not in itself generate any welfare problems as long as it is performed humanely, however the killing of potentially healthy pet animals is a source of ethical discomfort for many people, even though the killing of healthy farm animals for food often is not. Regardless of the approach taken, shelters should ensure they are able to provide good welfare for the animals they house, with access to adequate staff and resources to ensure their key welfare needs (see Chapter 3) are provided.

CATCH-NEUTER-RETURN (CNR)

There are a variety of CNR methods available. Well-planned CNR is the most successful long-term approach to managing dog populations, though modelling indicates that its efficacy in cat
populations may vary. Pet dog and cat reproductive control must also be considered. Female-focused desexing is more efficient for population control and should be the focus of all canine and feline neutering programmes.

**Surgical sterilisation (desexing)**

All surgery requires excellent asepsis, analgesia, and good surgical technique; thus appropriate veterinary training is essential. Desexed dogs are generally healthier and live longer than non-desexed dogs. Appropriately supervised desexing of street dogs may provide valuable veterinary student practical experience, and standards of medicine and surgery practised should be equivalent to those applied for owned pet dogs. If such standards cannot be achieved then the ethics of the sterilisation programme should be re-examined – it is not acceptable to neuter cats and dogs simply for practice or as part of ‘feel-good voluntourism’ (Ryan et al., 2019). Even with good standards of care, cats and dogs will experience moderate to significant welfare problems including capture, transport, kennelling, surgery, and often inadequate analgesia or anaesthesia (Bacon et al., 2017, Bacon et al., 2019).

**Medical contraception**

Medical options are available to control reproduction in cats and dogs, but many are as yet not validated in terms of permanency or side effects. Medical contraception of female dogs and cats is non-permanent (progesterones) and may increase the risk of significant side effects (pyometra – uterine infection, etc.).

Medical sterilisation of male dogs (intra-epididymal CaCl or Zinc Gluconate) has had promising results but has not yet been robustly evaluated, and side effects do occur. ‘Zeuterin’ (zinc gluconate) is FDA-approved in the USA, but a Chilean study showed side effects including infection and pain requiring sedation and aseptic preparation of the area. ‘Suprelorin’ (deslorelin) acts as a GnRH agonist and provides approximately six months of contraception to male dogs. It is unlicensed in female dogs but has been trialled in free-roaming females with some success. As yet medical contraceptives are not reliable enough to form the basis of canine or feline population control, but may provide useful adjunctive therapy.

**Potential solutions – the population management ‘toolkit’**

In addition to reproductive control as described above, stray dog and cat populations are often reliant on human-produced resources to maintain their populations. Thus, ancillary strategies can help to support population management.

**Responsible pet ownership**

Many pet owners do not recognise the intrinsic link between their own pets and more general dog or cat overpopulation. Indiscriminate breeding of pet dogs and cats generates puppies and kittens which may end up in shelters or free-roaming on the street, as there are limited life-long homes available for them. Responsible pet ownership reduces human–animal conflict and disease transmission, through appropriate reproductive control, training, and vaccination of pet cats and dogs.

**Public education in cat and dog behaviour**

Problem behaviours are one of the leading causes of pet cat and dog abandonment or relinquishment. Children under 15 years of age are most likely to be bitten by dogs, and the majority
of bites occur in the family home or at a family member or friend’s home, by a known dog. Effective parental supervision of child–dog and child–cat interactions, and effective education of schoolchildren and the general public on the subject of safe dog–human interactions, are essential to reduce the risk of pet animal bites. There is no evidence that breed-specific or ‘dangerous dog’ legislation has any impact on improving public safety. Instead, a ‘deed not breed’ approach should be taken with a focus on behaviour rather than breed type. As pet dog or cat bites or scratches may lead to pets being abandoned or relinquished, preventing aggression can help to reduce stray dog and cat numbers, as well as improving the welfare of cats and dogs in the home, as owners use more informed and appropriate behavioural management techniques.

**General welfare concerns**

In addition to the potential welfare problems described above, there are a number of overarching welfare problems that may impact cats and dogs, regardless of their role in society and their level of restriction.

**Neglect**

In general dogs, and to a lesser extent cats, are dependent upon humans to provide them with resources and opportunities (nutrition, shelter, veterinary medicine, exercise, companionship, mental stimulation, behavioural opportunities) to ensure they enjoy a good quality of life. Neglect may be described as the state of being uncared for, and we may apply this description to dogs and cats that do not have appropriate provisions and care. Whilst we may generally consider unrestricted cats and dogs to be more at risk of neglect, as their relationships with their caregivers is often more tenuous and may even be absent entirely, other categories of cats and dogs may also experience neglect. For example, dogs valued instrumentally, e.g., working dogs, racing dogs, etc., may find themselves neglected or abandoned if they are no longer able to perform their expected tasks.

Even much-loved pet cats and dogs may be neglected as neglect of welfare needs may occur even with good intentions. An obvious example is that of much-loved pet dogs and indoor housecats that are under-exercised and do not receive adequate opportunities for social behaviour or mental stimulation – such dogs and cats may be bored and frustrated, even though their owner loves them. Cats living a semi-restricted lifestyle (indoor–outdoor) that find their needs unmet may even choose to move into another home that provides an improved quality of life, regardless of the desires of the original owner. In some situations the intense emotional connection that some people feel for cats or dogs may even create welfare problems. Hoarding of pets is recognised as a mental health problem and psychiatric disorder, and may require a multi-agency approach including mental health, social services, animal welfare, fire, law enforcement, and environmental health services. Hoarding can create significant animal welfare problems through a combination of a lack of resources for the cats and dogs involved, plus a denial by the hoarder that there is a problem, and persistence of the hoarding behaviour. In such cases there are often also public health concerns due to poor sanitation and waste management, and pest infestation.

**Abuse**

Abuse is a more active process than neglect, involving intentional actions which detrimentally affect the welfare of cats and dogs. Examples include physical or sexual injuries or deliberate cruelty
Canines and felines

aimed at depriving the animal of its needs (or the shooting, injuring, suffocating, burning, or 
scaring of cats and dogs, or their use in zoophilic sexual practices). There is also a connection 
between abuse and neglect of animals, and that of people, as the emotional, physical, and sexual 
abuse of people and animals may be committed by the same group of perpetrators (Arkow, 2019, 
Fitzgerald et al., 2020).

Three worrying behaviours in childhood that may indicate later antisocial behaviours have been 
suggested to be: animal cruelty, fire setting, and bed wetting. These are known as the ‘MacDonald 
triad’. Whilst the ‘triad’ of behaviours has been challenged as a reliable indicator of later violence or 
aggression, there is a clear link between animal cruelty in childhood and abusive behaviour as an adult 
(Parfitt and Alleyne, 2020). Conversely, research also indicates that positive human–animal relation-
ships may help with the development of empathy, compassion, and prosocial behaviours in children 
(Hawkins et al., 2017). This highlights the importance of recognising the connection between human 
and animal abuse, and the opportunity for promoting evidence-based rehabilitation strategies that 
may positively impact the lives of both people and animals.

Meat trade

The consumption of dogs and cats for meat is not a geographically limited practice, but is gener-
ally confined to certain cultural groups and communities within cultures (Li et al., 2017). Dog 
meat consumption may affect a range of ‘types’ of dog including free-roaming, pet, stray, and 
crossbreeds (Dugnoille, 2018). The animals affected may be farmed, stolen pets, or taken from 
the street. They are often subjected to long-distance transport in cramped, unsanitary condi-
tions (including across national borders), may be force-fed rice porridge to artificially increase 
their slaughter weight, and then slaughtered without stunning using a range of methodologies, 
including blunt-force trauma, immolation (burning), skinning, or throat-cutting. Such experi-
ences confer obvious welfare problems including fear, stress, exposure to infectious diseases, 
physical and thermal discomfort, pain, and physical and psychological trauma.

Conclusions: love is not enough

This chapter has outlined some of the many challenges faced by cats and dogs, whether man-
ged under human care or roaming freely within human society, as well as exploring some 
overarching issues and the connection between human and animal welfare (‘one welfare’). One 
key consideration is that animals with whom we have an emotional connection, such as our 
companion animals, are sometimes less well scrutinised and protected than animals in other 
industries, e.g., laboratory research or livestock animals. There may often be an assumption 
that our empathy and care towards cats and dogs confers an enhanced level of welfare upon 
them, but in reality, it may be that our affection for cats and dogs may actually limit our ability 
to objectively assess their welfare. We often assume that our good intentions will translate into 
good welfare outcomes. In many situations, however, this is not the case, and so separating out 
our emotional response to cat and dog welfare issues, and evaluating their welfare objectively, is 
an important first step in ensuring that we really do provide good welfare for the cats and dogs 
with whom we share our lives.

References


Mellor DJ, 2018. Tail docking of canine puppies: Reassessment of the tail’s role in communication, the acute pain caused by docking and interpretation of behavioural responses. *Animals*, 8, p. 82.


Heather Bacon


