Promoting owner responsibility for pets in disasters

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Abstract

The issue of managing animals in the disaster context is well recognised in both research and practice. Complex human-animal relationships affect decision-making and behaviour, which can delay or prohibit effective emergency response and evacuations and motivate premature returns to unsafe conditions. The desire to safeguard animals in an emergency situation can ultimately result in human fatalities. There is extensive literature regarding the management of vulnerable wildlife or agricultural stock during hazardous events, yet the care and protection of companion animals and pets, particularly in higher-density urban environments, continues to represent a significant challenge. Emergency management arrangements in Australia identify formal roles and strategies for response organisations and agencies, however, in a legal and policy perspective, individual pet owners ultimately retain responsibility for the care and welfare of their animals. Consistent with a 'shared-responsibility' approach, individuals and households should be proactive in planning and making arrangements for their pets in an emergency. An online survey of Townsville residents was conducted to investigate pet ownership patterns, the extent of pet-inclusive disaster management planning and any identified issues in preparing and planning for companion animals in an emergency. Survey results showed that the majority of pet owner respondents were uncertain or underprepared. This paper considers existing literature and presents the survey findings to provide recommendations for greater community awareness and self-sufficiency. The aim is to encourage pet-inclusive disaster management planning - particularly evacuations of pets.

Introduction

Disaster events continue to demonstrate that a failure to adequately account for animals can endanger human life. The desire to protect animals in a disaster, whether for intrinsic value, economic value or attachment, can affect decision-making, behaviour and psychological responses that present risks to human safety, health and, ultimately, recovery efforts (Australian Animal Welfare Strategy 2014, Day 2017, Taylor 2019). To reduce the potential adversity associated with protecting or saving animals many governments and emergency response agencies actively incorporate animal management within disaster management planning.

The context, variability and type of human-animal relationships compounds the difficulties in implementing consistent and effective animal-inclusive disaster management strategies. Specific policies, frameworks and resources can also vary between government jurisdictions and stakeholders. Urban built environments with varying hazard risks, heterogeneous communities and diverse pet ownership present practical and logistical challenges for emergency management authorities. Consistent with the concept of 'shared responsibility' promoted in Australia's *National Strategy for Disaster Resilience* (COAG 2011), there is capacity for pet owners to be proactive and engaged in understanding the risks and making appropriate arrangements for their animals during emergencies and disasters.

Animal in disasters

In developed, industrialised, high-income countries such as the USA, Canada, New Zealand and Australia, the literature on animal management

in disasters broadly reflects 3 complex and dynamic contexts (although these are not mutually exclusive):

- Wildlife and animals in natural habitats (terrestrial, aquatic, marine) comprise issues of animal safety, protection, exposure, vulnerability, sentiment, rescue, rehabilitation and the intrinsic value of sentient beings.
- Livestock, commercial, agricultural, farm and production animals primarily have an economic, functional or livelihood value.[1]
- Companion animals, pets, domesticated animals (with service/assistance animals a subset within this) encompass animal guardianship, ownership, emotional connection, attachment bonds, care and responsibility.

Each of these contexts has implications on the way people react during a high-risk hazard event. However, for emergency services organisations, the protection of human life is the highest priority over potential environmental, economic or animal losses. People who risk their safety for the welfare of animals remains a significant emergency management issue.

There has been extensive research conducted to understand the diverse and complex human-animal relationships and associated psychological and behavioural responses to hazards. However, in Australia, there remains a limited appreciation of the capacity of individuals or households to proactively reduce the risks. Effective disaster management and resilience relies on understanding the issues to develop an effective approach.

Animal disaster management in Australia

Following devastating losses associated with the Victorian bushfires in 2009, Australian states and territories resolved to integrate animal management within government and organisational disaster planning arrangements (Australian Animal Welfare Strategy 2014; Taylor, Eustace & McCarthy 2015). Although the National Planning Principles for Animals in Disasters (Australian Animal Welfare Strategy 2014) advocated for a 'collaborative and proactive approach to the integration of animals into disaster management planning across all jurisdictions and communities' (p.2), there is still no consistent, national policy or formal procedures for managing animals during emergency events.

A review of relevant state and territory legislation reveals a number of issues and inconsistent guidelines, particularly in the case of human evacuations with companion animals (White 2012; Taylor, Eustace & McCarthy 2015; Best 2019). In some states, pets are accommodated with their guardians under formal human relief and evacuation shelter arrangements (although this may be limited to small animals). Other authorities and agencies may designate pet-specific evacuation sites, provide appropriate pet-friendly trailers in close proximity to human shelters or give recommendations for animal-suitable housing. In contrast, in some locations, the evacuation, safety and sheltering of pets

during emergencies is considered the responsibility of the owner. Given the varied contexts and capacities, people who own animals are encouraged to seek advice from local authorities for up-to-date information specific to local circumstances (RSPCA 2020). The Australian Animal Welfare Strategy (2014) acknowledges that the majority of people in Australia believe that formal emergency management arrangements include the welfare and care of pets and other animals.

In spite of such community expectations, from a legal and policy perspective, pet owners retain a duty of care and responsibility for their animals as they are considered 'personal property' (Best 2019, White 2012). Consistently, most formal disaster management arrangements are premised on the idea that people (whether owners, guardians or carers) will cater for their animals in an emergency event, including evacuation (White 2012; Australian Animal Welfare Strategy 2014; Taylor, Eustace & McCarthy 2015). While government agencies, emergency services organisations and non-government organisations maintain a protective and supportive role, pet owners and carers should plan to be self-sufficient where possible. Research by Day (2017) and O'Dwyer and Thompson (2018) found that the desire to save companion animals from disasters can positively influence preparedness, response and evacuation behaviours. Proactively engaging pet owners in planning for emergencies has the potential to reduce risk and make communities safer, adaptive and resilient.

Challenges to planning

The Bushfire and Natural Hazards Cooperative Research Centre 'Managing Animals in Natural Disasters' project (Taylor 2019) has made significant progress. However, companion animal disaster management is still an emerging area of investigation and research (White 2012; Taylor, Lynch, Burns & Eustace 2015). Related literature (in English language) identifies some recurrent issues and challenges:

- Ambiguity in formal definitions of what constitutes (or is accepted) as a pet or companion animal.
- A high pet ownership/human-to-pet ratio, particularly in developed/industrialised countries and urban environments.
- The complexity of pet ownership in reference to quantity, types and composition.
- The emotional strength of the human-animal relationships and attachment bonds.
- Ad hoc community hazard awareness of planning, preparedness and evacuation behaviour.
- Individual/household logistics such as the capacity to transport and evacuate all pets.

Although the terms 'companion animals', 'pets' and 'domesticated animals' are often used interchangeably in the literature, the parameters or distinctions used to define a pet for legislative and policy purposes can have implications for formal shelter and evacuation arrangements. Standard definitions include a level of animal domestication, close proximity to households and a degree of companionship. The policy position

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1. Animals in zoos, sanctuaries and laboratories are variably considered within wildlife, commercial and/or educational contexts.

of the American Society for the Prevention of Cruelty to Animals (ASPCA) is that companion animals 'should be domesticated or domestic-bred animals whose physical, emotional, behavioural and social needs can be readily met as companions in the home, or in close daily relationship with humans' (ASPCA 2021). In contrast, the Victorian Emergency Animal Welfare Plan (DJPR 2019) defines a companion animal as 'any non-human vertebrate animal kept for the purpose of companionship, recreation, protection or work' (p.4). These definitions are primarily intended to differentiate companion animals from wildlife or livestock. However, inconsistency can create public uncertainty over which animals will be accommodated under evacuation arrangements and this may adversely affect an individual's planning and actions. Service and assistance animals have a separate legal provision with special dispensation.

More than half the world's households are thought to contain at least one pet or companion animal (Thompson 2018). Effective planning and protection for both guardians and their animals in a disaster event represents a significant challenge for authorities. In addition to human needs, pets also require sufficient food, water, bedding, medication and first aid (where necessary), toileting and cleaning supplies, equipment (e.g. bowls, leads, harness, toys and carriers), identification, adequate transport and shelter arrangements (RSPCA 2020). In evacuation or relief shelters where animals may be kept in close proximity to other animals and/or humans, there are further concerns about safety, public health, the provision of care, appropriate vaccinations and the potential for transmittable diseases (between animals and zoonosis).

Taylor (2019) found that pet ownership levels in Australia are among the highest in the world. Hannink (2020) estimates almost two-thirds (62 per cent) of people in Australian own at least one pet including dogs, cats, fish, birds, horses and other animals. As over 40 per cent of people surveyed (Hannink 2020) indicated they had more than one type of pet, effective disaster planning and logistical arrangements become increasingly complicated. Greater quantities and diversity of companion animals increases the magnitude of hazard risk (Taylor, Eustace & McCarthy 2015). While the onus of responsibility is with pet owners and carers, a high pet-human ratio can create issues for evacuations and the physical management of official shelters in a disaster event.

A significant amount of the available research and literature about pets in disasters is dedicated to the attachment bond or emotional strength of the human-companion animal relationship (White 2012, Day 2017, Taylor 2019, Thompson 2018, Trigg *et al.* 2015). Pets have been described by their owners as valued family members, companions, partners, friends and a source of happiness, comfort and wellbeing. As many people consider themselves inseparable from their companion animals, this relationship can have a direct influence on their actions during an emergency, particularly decisions to stay or go (Taylor 2019, Trigg *et al.* 2016). Day (2017) found that pet ownership can influence risk behaviour and decision-making and may cause adverse psychological symptoms due to the event (the stress of caring for or keeping pets captive, losing or abandoning pets,

leaving animals behind, setting animals free or just general worry). In cases where owners have evacuated without their pets, many take unnecessary risks to return to hazardous areas to rescue or recover animals. Travers, Degeling and Rock (2017) found that injury or loss of companion animals during a disaster can result in high levels of acute stress, depression, posttraumatic stress disorder and dissociative experiences that impede response and recovery efforts. Detailed, proactive pet-inclusive disaster management planning and early enactment could mitigate such adversity (Taylor, Eustace & McCarthy 2015; Taylor 2019).

To reduce ad hoc responses and unnecessary risk exposure during a hazard, the Australian Government (2014) advocates for communities to 'be prepared, act early, be considerate and act safe'. Disaster and hazard preparedness information with supplementary ways to plan for pets is publicly available from veterinary clinics, government agencies, local councils and emergency services organisations. While online website access and the availability of advice on social media platforms is increasing, traditional methods such as brochures, pamphlets, television and radio are still used to communicate and disseminate advice. Initiatives such as the Blue Mountains Animal Ready Community has developed extensive resources, guides and networks that support pet owners in communities to be prepared and empowered (Patch 2021). Despite the availability of such resources and guidance, the majority of households still lack adequate pet-inclusive disaster planning (Thompson 2018; O'Dwyer & Thompson 2018; Taylor, McCarthy & Brigelow 2018).

Taylor and co-authors (2015) investigated pet owner behaviour in hazard events in Australia and found over 35 per cent of respondents self-reported limited or no emergency planning and a further 48 per cent indicated they were 'somewhat' prepared. In respect to evacuation behaviour, only 70 per cent of respondents who were advised to leave complied with the direction and many were unwilling to leave pets behind. Approximately 15 per cent of those who evacuated did leave animals at home (either deliberately left, set free, escaped or were unable to catch in time to evacuate). In some cases, family members or carers stayed to protect their animals while the remainder of their household evacuated. Similar results were found in a community in the Blue Mountains, NSW, which had previously experienced severe bushfire disaster (Taylor, McCarthy & Brigelow 2018). Although not all hazards, events or animals require the same type of planning, a failure to prepare can create unnecessary risks and adversity before, during and after an event.

It is recognised that the type of pet, hazard and accessibility can influence decisions to evacuate (Travers, Degeling & Rock 2017). The RSCPA (2020) recommends owners consider different pet-friendly destinations and evacuation locations prior to an event happening. These options include the homes of friends and family outside the risk area, identifying boarding facilities and animal care centres, pet-friendly accommodation or official evacuation centres and facilities where pets are permitted. Taylor, Eustace and McCarthy (2015) note that effective

pet evacuation planning should consider both the time and capacity to evacuate animals in high-stress situations including appropriate transport, sufficient provisions, accessibility and contingency plans. Day (2017) and Thompson, Trigg and Smith (2017) indicate that the capacity to evacuate with pets may be a greater issue for vulnerable and low socio-economic sectors of the community. Taylor, Eustace and McCarthy (2015) indicate that less than 20 per cent of respondents were 'very prepared' for a disaster with a written plan that included pet arrangements. If not addressed, the complex issues of pet diversity, quantities, composition, owner attachment and insufficient disaster planning can create unnecessary risks in the advent of a disaster.

Case study: Townsville

With limited empirical data regarding pet-inclusive disaster management in the Australian urban, multi-hazard context, an exploratory study was undertaken in consultation with the local Townsville City Council to investigate pet ownership patterns, levels of community emergency preparedness for animals and any identified issues in preparing and planning to self-manage pets during a disaster event. Townsville has experienced cyclones, flooding and bushfires over the past decade and emergency planners recognise that evacuation shelters do not have the mandate to accommodate pets and many residents have been unwilling to leave pets behind (Gurtner & Vachette 2017).

Townsville is a city on the north-east coast of Queensland with a population of approximately 180,000 at the time of the survey (TLDMG 2018). It is the largest urban centre north of the Sunshine Coast and is considered a regional location with a mix of urban and peri-urban residential development. While only dogs and cats are required to be registered with council (TCC 2018), pet variety and ownership rates within the city are reported to be relatively high by both the RSCPA and the local council animal management. High-risk hazards such as cyclones, storm surges and flooding are common and many residents only live in Townsville for a few years depending on education, military or work commitments. More transient populations such as tourists and visitors also frequent the local region with their pets. With such a heterogeneous population, local hazard awareness, planning and hazard experience can be highly variable. In addition to a desire to have all residents 'Plan. Prepare. Survive' (TLDMG 2018) the council recognised a specific need to promote better pet-inclusive planning at the individual and household levels. A survey was designed to assess existing community capacity and to inform the development of public communication and engagement activities.

The online survey comprised 15 questions covering suitability criteria, geographic location, dichotomous yes/no queries and open-ended responses to assess pet profiles, levels of disaster preparedness, evacuation arrangements and general pet-inclusive disaster planning and awareness. To meet study inclusion criteria, respondents had to be local residents (verified by postcode), pet owners and over the age of 18 at the time of completing the survey. The survey was administered using SurveyMonkey™. A link to the survey with an invitation to participate was distributed using a combination of social media (predominantly Facebook), other online platforms, posters and flyers at local pet stores and vets as well as local newspaper feature article. The link on social media was reposted by a number of animal interest groups and similar special interest pages. Data were collected over a 3-week period (8 August to 1

Families and loved pets share a makeshift evacuation space during wild weather and floods in Townsville in 2019.

Image: Allison Thomson

September 2018) with an average reported completion time of 5 minutes.

This research and the survey received prior approval from the James Cook University Human Research Ethics Committee (Approval Number: H7447).

A total of 242 local pet owners responded to the survey. Consistent with most online surveys, respondents self-assessed and reported their circumstances. As an anonymous survey there was limited capacity to verify or cross check responses. In terms of pet ownership complexity, this sample of Townsville residents recognised issues regarding species variety, quantity and mixed household pet composition. Figure 1 illustrates the diversity of companion animal types including dogs, cats, birds, fish, horses (deer and goats) and reptiles. However, a number of respondents also collected and bred invertebrates as pets. Over 80 per cent owned dogs, 39 per cent had cats and a further 15 per cent had fish and/or birds (9 respondents did not specify the types of animals owned). In respect to issues of quantity and composition, numbers of personal pets varied from a single animal to hundreds of fish as well as birds and rodents. Almost 60 per cent of respondents reported having only one type of pet, 25 per cent had two types and 18 per cent had 3 or more (up to 8) pet varieties.

A number of questions related to household disaster kits (with minimum provisions for 3 days) and an appropriate evacuation plan. Nearly half (42 per cent) of respondents indicated that they did not have a household disaster kit and/or evacuation plan. Of those respondents who reported having disaster plans, only 39 per cent included contingencies for the evacuation of all their pets. If there was limited warning time to evacuate, respondents would not have adequate personal supplies nor transport for all their pets. This was evident in one survey participant's extended comment:

> I have a disaster kit with food for me and my pets (my dogs, the hand raised birds, mouse) and some of their accessories, I have a tent that I can pack into the car quickly and I plan to go to my sister's house in Oak Valley if I had to be able to evacuate. I'd try to take as many of them with me if I could. I wouldn't be able to evacuate all of them though if there was little warning time to evacuate, I think I may end up leaving some behind like the fish and birds which would be hard to catch and put in a travel cage :(

(Survey response)

In contrast to these low levels of household disaster preparation and pet planning, approximately 95 per cent of respondents

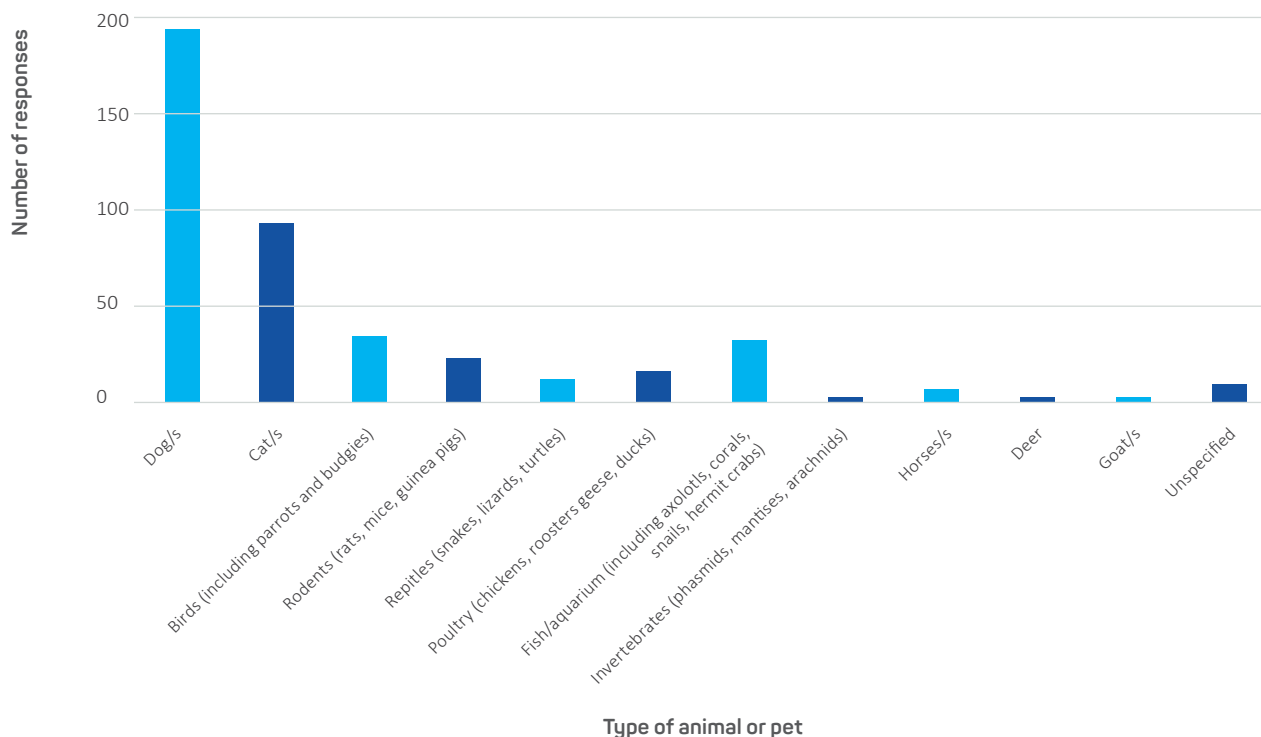## Reported animal and pet ownership (n-242).

Figure 1: Self-reported pet ownership in Townsville, Queensland.

still believed they had the capacity to evacuate all their pets in a disaster event. Only 12 people said 'no' or they were 'uncertain' to this question. While 91 per cent indicated they would not be willing to leave pets behind, 5 per cent indicated they did not have their own mode of transport and/or required regular external mobility support, thus limiting their capacity to self-evacuate. Additional social and economic constraints or vulnerabilities were not considered in this research.

For pet-inclusive evacuations, there was significant variability regarding planned locations, awareness of local options and where to source relevant information or advice. In the advent of a directed evacuation, 17 per cent of respondents planned to stay and 'shelter in place', with a further 24 per cent uncertain or contingent on the hazard situation. For those more predisposed to evacuate, intended destinations included friends and family, hotel accommodation, inland or distant locations away from the hazard risk and official evacuation centres or specified locations. Of those surveyed, 71 per cent indicated they were uncertain whether local government shelters allowed for pets and almost 4 per cent erroneously believed that companion animals were allowed. Consistent with this confusion and uncertainty, 61 per cent claimed they did not know where to source credible information about planning for pets in disasters.

The survey sample size was small, but despite limitations regarding the scope and narrowness of the survey, the results highlight recognised issues regarding the diversity of Townsville pets and pet ownership, the limited extent of household hazard preparedness and an apparent overestimation of self-reported capacity to evacuate with all companion animals. This sample of pet owners suggests that residents are underprepared to independently ensure the safety of their companion animals in an emergency situation. The case study of Townsville confirms many of the established challenges in pet disaster management planning, indicating further collaborative effort is required by authorities to help owners share responsibility and be self-sufficient.

Recommendations

Research by Day (2017), Thompson (2018), O'Dwyer and Thompson (2018) and Taylor (2019) posit the 'pets as a protective factor' principle in which companion animal guardianship can actually motivate owners to connect and be proactive in disaster risk management planning, through education, behaviour change and improved marketing and communication strategies. While friends, family and supportive networks remain an important resource, it is suggested that focusing on individual disaster preparedness 'for the sake of your pet' will deliver better engagement for planning for pet evacuation and self-reliance that will, in turn, yield higher human survival rates (Thompson 2018). This has been the central premise for the Animal Ready Communities project (Patch 2021).

The efficacy of any related strategy is premised in consistency, unilateral commitment, increased collaborative partnerships among all relevant stakeholders, and the strengthening of communication and messaging approaches (Trigg *et al.* 2015, Taylor 2019). At the local level, a practical approach to promote

and increase individual guardian awareness, knowledge and responsibility for pet-inclusive disaster management would be the distribution of relevant information among a targeted 'community of interest'. Possible avenues to proactively provide information and education include:

- council pet registration and renewal notices
- registration for licensed pet breeders and animal handlers
- pet microchipping
- pet insurance
- registered pet-related businesses and organisations (e.g. pets stores, veterinary clinics, animal welfare organisations and shelters, animal boarding facilities, groomers, pet sitters and walkers)
- local community events and schools
- targeted media campaigns (both online and traditional media) to leverage existing groups and campaigns.

While a targeted communication approach remains relatively feasible and resource and cost efficient for relevant authorities, further research would determine the extent that the provision of such information translates into increased household pet-inclusive hazard planning and changed behaviours. Informed communities is only the first step to increasing disaster resilience.

Conclusion

Although the challenges of pet-inclusive disaster management are well established, there is still limited literature, research and empirical evidence available in the Australian context. With high levels of local pet ownership and the influence of complex, human-animal attachment bonds, there are significant concerns about responsibility and household capacity to respond safely and appropriately in an emergency. A case study of Townsville pet owners found that few residents included pets in household disaster management planning, with limited knowledge of recommended strategies. While all levels of government, emergency services organisations and stakeholders have a role in emergency management, it is considered a shared responsibility. As animal guardians have the legal responsibility and 'duty of care' for their companion animals, there is an expectation that individuals and households must become more aware, proactive and self-sufficient.

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