Assessing the safety of collars used to attach predation deterrent devices and ID tags to pet cats

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Abstract

Collar-worn deterrents reduce predation by cats while collar-mounted ID enhances return of lost animals. A perception that collars are hazardous limits their use. We defined cases as ‘collar incidents’ (cat snagged its collar or caught a paw), ‘collar injuries’ (veterinary treatment needed for a collar incident), and ‘collar deaths’ (cat died), before integrating data from veterinarians, owners from the general public and owners from a welfare society. Despite biases associated with each of these groups, taken together, the results from these indicated that collar injuries or deaths are rare. Interviews with one hundred and seven veterinarians indicated an average rate of one collar injury observed per 2.3 years of veterinary practice. At one practice, over three years, only 0.33% of 4,460 cat cases were collar injuries, while 180 cat cases at four clinics during August and November 2011 included none. The 63 owners from the general public reported only one collar injury and no deaths in a lifetime of ownership, although 27% experienced collar incidents. In contrast, 22% reported cats needing treatment following road accidents, 53% reported cats needing treatment for fighting injuries and 62% had owned cats killed on the road. Most (62%) of the 55 respondents from a cat welfare society had experienced a collar incident, but only two cats needed treatment. One died. In contrast, 31 and 58% reported cats needing treatment for road accidents and fighting, respectively, and 41% had owned cats killed on the road. Fighting and road accidents are greater hazards to roaming cats than collars, which offer the compensatory benefits of mounting predation deterrents and ID tags.

Keywords: animal welfare, cat collar, Felis catus, pet cats, urban wildlife, wildlife protection

Introduction

Interventions to conserve wildlife sometimes require adjustments to the husbandry of domestic animals (Vanak & Gompper 2010; Silva-Rodríguez & Sieving 2011; Wierzbowska et al 2012). These involve special sensitivities, because the changes are often relevant to people’s livelihoods in the case of farm animals (Hemson et al 2009; Jones et al 2011; Marchini & MacDonald 2012), their bonds of affection to domestic pets, or to their animals’ welfare (Calver et al 2011).

Pet cats (Felis catus) (Mammalia: Felidae) are a case in point. They are valued companion animals around the world, where they are maintained at high population densities that sometimes exceed 100 km² (Liberg et al 2000; Sims et al 2008). According to the definition of Baker et al (2010), pet cats live in close association with a household but wander largely at will, as distinct from house-bound cats that are confined indoors, semi-feral cats that are partially provisioned, and feral cats whose self-sustaining populations have no direct reliance on humans. Many pet cats are occasional or frequent hunters at some time in their lives (Churcher & Lawton 1987; Barratt 1998; Gillies & Clout 2003; Lepczyk et al 2004; van Heezik et al 2010; Tschanz et al 2011). Rough estimates of their impact, based on extrapolations from mortalities in local studies, suggest that they kill up to 29.2 million birds and 57.4 million mammals annually in the UK (Woods et al 2003) and 100 million birds (Erickson et al 2005) and “more than a billion small mammals” (American Bird Conservancy 2011) annually in the USA. There is debate over the reliability of these estimates, and whether this mortality is additive to other effects or if cats simply take prey that would have died of other causes (Patronek 1998; Kays & De Wan 2004; Beckerman et al 2007; Baker et al 2008). Nevertheless, enough owners are concerned about the wildlife welfare issue caused by predatory cats to make the sale of collar-worn predation deterrents economically viable, while some local governments insist that cats in their jurisdiction wear a predation deterrent (Lilith et al 2010).