The welfare of an unwanted guest in an urban environment: the case of the white-eared opossum (Didelphis albiventris)

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Abstract

One major problem facing wildlife is urbanisation, and the increasing contact between human city dwellers and animals. In this study, we investigated the problems of urban opossums (Didelphis albiventris), through the analysis involving responses to call-outs (n = 500) made by the environmental police of Belo Horizonte, Minas Gerais, Brazil (2002 to 2007). Our objective was to characterise the problems faced by opossums and use this information to suggest how their welfare and urban management could be improved. Two types of call-outs were made: (i) solicitation whereby a person called them to report a problem; and (ii) the report of an injured animal. On average, one call-out was made every four days. There were no ‘time of year’ effects in relation to call-outs, or any effect of gender or age of the person making the call-out. Furthermore, we found no environmental (eg percentage of ‘green area’) or socio-economic variables (eg salary levels) associated with call-out frequency. The majority of call-outs resulted in the attempt to capture opossums, and usually only one animal was captured. Many of these animals were released into city forest fragments at a mean (± SEM) distance of 8,285 (± 727) m; (n = 312) from their point of capture. Injured animals were sent to veterinary clinics or to the Government’s wildlife processing centre. From these data we were able to make recommendations regarding the welfare and management of urban opossums.

Keywords: animal welfare, human-wildlife conflicts, marsupials, translocations, urban wildlife, white-eared opossums

Introduction

The scale of the welfare problems of wildlife and, especially urban wildlife, can be enormous (eg Teixeira et al 2007; Wimberger & Downs 2010; Wimberger et al 2010). These problems often derive from human-animal conflict situations (eg accidents involving traffic; Goulart et al 2010). The solutions to such problems may be simple, but the causes of such problems need to be understood first. In many countries in the world, wildlife problems are dealt with by dedicated rescue centres (see Wimberger et al 2010), which may or may not be run by Government agencies. In Brazil, for example, urban wildlife problems are first dealt with by the environmental police (a division of the military police) who may, depending on the circumstances, pass on their cases (ie rescued animals) to Government rescue centres, which may in turn pass animals on to Non-Governmental Organisations (NGO) run rescue centres (Goulart et al 2010). We estimate that annually in Brazil hundreds of thousands of urban animals are rescued by the environmental police.

Urban wildlife may be classified as: urban avoiders (species which live at lower than wild-conspecific densities); urban adapters (species which live at the same density as wild-conspecifics); and urban exploiters (species which live at higher densities than wild-conspecifics) (McKinney 2006). The occupation of cities by urban wildlife may be seen by human dwellers as positive, neutral or negative (Leite et al 2011). In many European cities, the presence of birds, and even meso-predators such as red foxes (Vulpes vulpes), are viewed positively; whereas, in the same cities the presence of urban exploiters such as pigeons (Columba livia domestica) are viewed negatively (Keeling & Gilligan 2000; Piasecki 2006; Shartz et al 2008). It is often with some justification that certain species are seen as unwelcome guests in cities, for example, raccoons (Procyon lotor) in the USA are associated with the creation of mess through their behaviour of searching through human rubbish for food (Rosatte & MacInnes 1989), and rats (Rattus spp) and pigeons are, for example, associated with the spreading of diseases (Keeling & Gilligan 2000; Piasecki 2006). Due to the increasing urbanisation, contact between wildlife and city dwellers is increasing: this reflects both the fact that cities swallow-up green areas creating ‘green islands’ where species become stranded and certain species learn to adapt to the urban environment. A number of research projects have shown that this contact can be beneficial to both the psychological and physical well-being of city dwellers (Maller et al 2005; Fuller et al 2007). It is not clear if these benefits would be affected adversely by the presence of ‘pest’ species or...