A welfare assessment of methods used for harvesting, hunting and population control of kangaroos and wallabies

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Abstract

In Australia, several macropod species are subjected to commercial harvesting, recreational hunting and population management, using both lethal and non-lethal measures. Some techniques for killing macropods can cause prolonged and/or severe suffering, and of particular concern is the welfare of remaining pouch young or young-at-foot, when females with dependent young are killed. Non-lethal methods are more widely supported by the general public and include reproductive control and relocation. These methods, however, also have significant associated welfare challenges. This review outlines the welfare concerns for each current method, and concludes that an accurate head-shot by an experienced shooter is least likely to inflict suffering. However, this assumes best practice shooting, which may not be representative of field conditions. Furthermore, many aspects of macropod control and killing still require significant research. These include, but are not limited to: accurate statistics for pouch young and young-at-foot mortality and morbidity in Australian states; data on field-based compliance with National Codes of Practice; safe and remote administration of reproductive control measures; and the impact of using dogs and trapping in wallaby destruction and hunting.

Keywords: animal welfare, culling, lethal control, macropod, non-lethal control, population management

Introduction

In Australia, four kangaroo and three wallaby species are killed or subjected to population management for reasons such as commercial harvesting, protection of agricultural land and crops, recreational hunting, animal welfare and conservation (Tasmanian Department of Primary Industries, Parks, Water and Environment [TAS DPIPWE] 2006; Australian Capital Territory and Municipal Services [ACT TAMS] 2010; Queensland Department of Environment and Heritage Protection [QLD EHP] 2012; Department of Sustainability, Environment, Water, Population and Communities [SEWPaC] 2013). While accepted methods differ between states, lethal options include shooting with a firearm and poisoning (TAS DPIPWE 2006; SEWPaC 2008a), and non-lethal methods include fertility control (Herbert et al 2006) and relocation (Higginbottom & Page 2010). Some animal protection and welfare groups oppose lethal methods, arguing that such practices inflict pain and suffering (Voiceless 2013; Animal Liberation ACT 2014; Animals Australia 2014) and that compliance with the relevant National Codes of Practice (eg SEWPaC 2008a,b) is inadequately monitored or adhered to (Boom et al 2012). In situations where human activity affects animals, there is an ethical responsibility to ascertain whether suffering occurs as a direct or indirect result of these activities (Fraser & MacRae 2011). For clarity within this review, harvesting will refer to killing for commercial purposes; destruction will refer to killing for the protection of agricultural land and crops or population reduction, or the killing of joeys and young-at-foot; hunting will refer to killing by recreational shooters; and euthanasia will refer to killing for the purpose of ending the suffering of a sick or injured animal. The aim of this review is to examine the welfare implications of current, legal methods for macropod harvesting, destruction, recreational hunting and population control within Australia. The literature will be evaluated with reference to welfare assessment frameworks by Kirkwood et al (1994), Mellor and Reid (1994) and Sharp and Saunders (2011) and focusing on the number of individual animals affected, the likelihood of exposure to harm, the nature and extent of harm and the capacity of the animal to suffer, with specific reference to cognitive development in pouch young. Harm is assessed against five recognised domains of suffering (adapted from Mellor & Reid 1994): i) starvation/dehydration/malnutrition; ii) exposure to extreme environmental temperatures; iii) injury and pain; iv) behavioural restriction; and v) anxiety, fear and distress. Methods are assessed for their effectiveness, and where methods are lethal, the duration of suffering until insensibility or death occurs.