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To cite this article: Sophie Riley (2015) Model Codes for Humane Treatment of Animals: Australian Law and Policy on Lethal Control of Pests, Journal of International Wildlife Law & Policy, 18:4, 276-288

To link to this article: <http://dx.doi.org/10.1080/13880292.2015.1096157>



Published online: 07 Dec 2015.



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# Model Codes for Humane Treatment of Animals: Australian Law and Policy on Lethal Control of Pests

SOPHIE RILEY\*

## 1. INTRODUCTION

Killing is “ubiquitous and omnipresent”<sup>1</sup> in human–animal relationships. Humans kill animals for food,<sup>2</sup> for sport,<sup>3</sup> and also as part of land management practices.<sup>4</sup> In this last case, the eradication or control of pest animals may originate with the perceived need to stem the decline of native biodiversity or to prevent conflict with human activities, such as pastoralism and agriculture.<sup>5</sup> But divergent outlooks about killing pest animals can polarise public opinion,<sup>6</sup> meaning that decisions about killing are unlikely to be taken or evaluated solely by reliance on legal rules and science. There will also need to be some regard for the societal values and ideals that give rise to and underpin animal control regimes.<sup>7</sup> These values may conflict when feral animals that are now pests, for example, were once imported and valued as domestic pets and for farm

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<sup>1</sup> ANIMAL STUDIES GROUP, *KILLING ANIMALS* 3 (2006). In the present article, “animal” refers to non-human species, some of them wild and some non-wild.

<sup>2</sup> STANDING COMMITTEE ON AGRICULTURE AND RESOURCE MANAGEMENT, *MODEL CODE OF PRACTICE FOR THE WELFARE OF ANIMALS: LIVESTOCK AT SLAUGHTERING ESTABLISHMENTS* (2002), available at <http://www.publish.csiro.au/books/download.cfm?ID=2975>.

<sup>3</sup> N. Territory Gov’t, *Hunting Permits*, NT.GOV.AU, <http://www.parksandwildlife.nt.gov.au/permits/wildlife/hunting> (last visited July 30, 2015).

<sup>4</sup> See Australia, Department of the Environment, Water, Heritage and the Arts, *Threat Abatement Plan for Competition and Land Degradation by Rabbits* (2008), available at <http://www.environment.gov.au/system/files/resources/7097f100-4a22-4651-b0e1-df26e17c622c/files/tap-rabbit-report.pdf>.

<sup>5</sup> QUENTIN HART & MARY BOMFORD, *AUSTRALIA’S PEST ANIMALS: NEW APPROACHES FOR OLD PROBLEMS* 3–4 (2006), available at <http://www.acera.unimelb.edu.au/materials/brochures/SDM-AustraliasPestAnimals.pdf>.

<sup>6</sup> Kerry Staigh, *Western Quoll Returns to Flinders Ranges in South Australia after More Than a Century*, BBC LANDLINE, April 27, 2014, <http://www.abc.net.au/news/2014-04-26/western-quoll-returns-to-flinders-ranges-after-a-century/5412284>; *Animal Liberation Ltd v Dep’t of Env’t & Conservation* [2007] NSWSC 221 (Austl.). The plaintiff was an animal activist group litigating to stop aerial shooting of goats and pigs in Nattai Reserve and Wollondilly River Nature Reserve in New South Wales.

labor, or when species long prized because they are native and wild now impose costs on agriculture and homeowners. Value conflict may then prioritise human needs to the detriment of the environment and wildlife conservation. Or it may engender an inappropriately short-term regulatory focus in animal control bureaucracies.

More specifically, in the case of pest animals, decisions may give insufficient regard to the welfare of species that bear the brunt of large-scale eradication and control programmes. Model codes for the humane treatment of pest animals inevitably raise, therefore, moral considerations concerning how society appraises competing human/animal interests, as well as how it balances the conflicting interests of individual species, both wild and non-wild, against other species, habitats, and ecosystems.<sup>8</sup> These moral issues deserve more attention than they have so far received and, it will be argued here, are appropriately analysed in the context of environmental ethics.

Australia's pest animal regime is the suite of policy, laws, and regulations that govern the eradication and control of species that, for one reason or another, Australians deem to be troublesome or a nuisance. Australia has extensive experience dealing with a range of such animals, and assessment of that experience can be helpful in understanding similar issues that arise in other jurisdictions.

The analysis begins with a summary of Australia's regime, including the meaning of a pest animal and the role of the Model Codes of Practice for the Humane Control (Model Codes)<sup>9</sup> of pests, now including camels,

<sup>7</sup> Holly Doremus, *Shaping the Future: The Dialectic of Law and Environmental Values*, 37 U.C. DAVIS L. REV. 233, 235 (2003).

<sup>8</sup> Dorothy Boorse, *Teaching Environmental Ethics: Non-Indigenous Invasive Species as a Study of Human Relationships to Nature*, 8 WORLDVIEWS 323, 332 (2004).

<sup>9</sup> These Model Codes consist of the following: TRUDY SHARP & GLEN SAUNDERS, MODEL CODE OF PRACTICE FOR THE HUMANE CONTROL OF FERAL CAMELS (2012), available at <http://www.feral.org.au/wp-content/uploads/2013/01/camelCOP2012.pdf>; TRUDY SHARP & GLEN SAUNDERS, MODEL CODE OF PRACTICE FOR THE HUMANE CONTROL OF FERAL CATS (2012), available at <http://www.feral.org.au/wp-content/uploads/2012/09/catCOP2012.pdf>; TRUDY SHARP & GLEN SAUNDERS, MODEL CODE OF PRACTICE FOR THE HUMANE CONTROL OF FERAL DONKEYS (2012), available at <http://www.feral.org.au/wp-content/uploads/2013/01/donkeyCOP2012.pdf>; TRUDY SHARP & GLEN SAUNDERS, MODEL CODE OF PRACTICE FOR THE HUMANE CONTROL OF FERAL GOATS (undated), available at <http://laptop.deh.gov.au/biodiversity/invasive/publications/pubs/cop-feral-goats.pdf>; TRUDY SHARP & GLEN SAUNDERS, MODEL CODE OF PRACTICE FOR THE HUMANE CONTROL OF FERAL HORSES (2012), available at <http://www.feral.org.au/wp-content/uploads/2012/09/horseCOP2012.pdf>; TRUDY SHARP & GLEN SAUNDERS, MODEL CODE OF PRACTICE FOR THE HUMANE CONTROL OF FERAL PIGS (2012), available at <http://www.feral.org.au/wp-content/uploads/2012/09/pigCOP2012.pdf>; TRUDY SHARP & GLEN SAUNDERS, MODEL CODE OF PRACTICE FOR THE HUMANE CONTROL OF FOXES (2012), available at <http://www.feral.org.au/wp-content/uploads/2012/09/foxCOP2012.pdf>; TRUDY SHARP & GLEN SAUNDERS, MODEL CODE OF PRACTICE FOR THE HUMANE CONTROL OF RABBITS (2012), available at <http://www.feral.org.au/wp-content/uploads/2012/09/rabbitCOP2012.pdf>; TRUDY SHARP & GLEN SAUNDERS, MODEL CODE OF PRACTICE FOR THE HUMANE CONTROL OF WILD DOGS (2012), available at <http://www.feral.org.au/wp-content/uploads/2012/09/dogCOP2012.pdf>. Other instruments are discussed in Part 3 *infra*.

cats, donkeys, goats, horses, pigs, foxes, rabbits, and wild dogs. Examination of the Model Codes lays the groundwork for three key arguments: first, that Australia's regime entrenches lethal methods as a primary regulatory response; second, that by normalizing killing, regulation cements a short-term focus that overlooks long-term goals and the place of pest species in an Australian environment extensively altered by humans; and, third, that the trajectory of the regime is inconsistent with ethical principles.<sup>10</sup> An alternative view would encourage society to examine its own role in the introduction and spread of pest species in Australia and simultaneously emphasise the need to address regulation for the long term.

Although the analysis critiques the Model Codes, they are nonetheless an important step towards the candid appraisal and re-evaluation of control techniques in Australia. It will be hard to shake off decades of experience in which killing has been seen as the tried and true response, and in which sluggish political will has failed to boost knowledge and research into ecological interactions of pest animals.

## 2. INVASIVE/PEST ANIMALS AND THE MODEL CODES

The meaning of the term "invasive" or "pest animal" is highly variable.<sup>11</sup> At the international level, for example, an invasive species is a species whose introduction and spread threatens biological diversity.<sup>12</sup> This definition acts as a trigger for obligations, found in Article 8(h) of the *Convention on Biological Diversity* (CBD),<sup>13</sup> directing parties to prevent the entry of these species and/or eradicate and control them. The notion of threat, however, can extend beyond the protection of biodiversity to include harm to socioeconomic values. In Australia, the Model Codes describe invasive animals much more broadly as pest animals:

[A pest animal is a] native or introduced, wild or feral, non-human species of animal that is currently troublesome locally, or over a wide area, to one or more persons, either by being a health hazard, a general nuisance, or by destroying food, fibre, or natural resources.<sup>14</sup>

This significantly lowers the threshold for applying control measures to any species deemed to be troublesome or a general nuisance. Although to

<sup>10</sup> TIM LOW, *THE NEW NATURE: WINNERS & LOSERS IN WILD AUSTRALIA* ch. 8, 21 (2003).

<sup>11</sup> On the meaning of invasive alien species, see Sophie Riley, *A Weed by Any Other Name: Would the Rose Smell as Sweet if It Were a Threat to Biodiversity?*, 22 *Geo. Int'l Envtl. L. Rev.* 157 (2009).

<sup>12</sup> See the CBD's 2002 Guiding Principles, fn. 57, ¶2, available at <https://www.cbd.int/decision/cop/?id=7197> (last visited 30 July 2015).

<sup>13</sup> Convention on Biological Diversity, June 5, 1992, 1760 U.N.T.S. 79.

<sup>14</sup> See the definition sections of the Model Codes, *supra* note 9.

date the Model Codes have dealt with non-native species, the terms “troublesome” and “nuisance” have also been applied to native animals, such as kangaroos, native birds, possums, and bats. In New South Wales, for example, kangaroos have been commercially hunted since 1992,<sup>15</sup> and land occupiers are also able to apply for permits to kill native birds that interfere with crop production.<sup>16</sup> More recently, Tasmania has introduced possum hunting to prevent agricultural damage,<sup>17</sup> while bat culls are becoming increasingly common, notwithstanding reservations concerning their efficacy.<sup>18</sup>

In the mix of legislation, guidelines, management plans, and codes of conduct comprising the Australian regime, a species may be listed as a declared pest,<sup>19</sup> in which case its impacts can be accepted as a threatening process, and/or it may be subject to actions set out in management plans to reduce population levels below a threshold considered harmful.<sup>20</sup> The Model Codes set out a range of methods to guide the humane control of pest animals.

<sup>15</sup> Meat Industry (Game Meat) Amendment Act (NSW), 1992.

<sup>16</sup> *National Parks and Wildlife Act 1974* (NSW) s 1 (Austl.).

<sup>17</sup> Tasmania, Department of Primary Industries, Parks, Water and Environment, Wildlife Management Branch, *Plan for the Commercial Harvest and Export of Brushtail Possums in Tasmania 2010–2015*, at 6 (2010), available at <http://www.environment.gov.au/system/files/resources/d37d8cbc-e899-4737-b6a9-9c9eeb6ae802/files/tas-brushtail-possums-management-plan.pdf>.

<sup>18</sup> CAROL BOOTH ET AL., WHY NSW SHOULD BAN THE SHOOTING OF FLYING-FOXES FOR CROP PROTECTION (Nov. 2008), available at <https://www.hsi.org.au/editor/assets/Actions/FFreport4Jan09.pdf>; Chris Degeling & Ian Kerridge, *Hendra in the News: Public Policy Meets Public Morality in Times of Zoonotic Uncertainty*, 82 Soc. Sci. & Med. 156 (2013); P. A. Racey, A. M., Hutson & P. H. C. Lina, *Bat Rabies, Public Health and European Bat Conservation*, 60 ZOOZOSES PUB. HEALTH 58 (2013); Thomas Hallam & Gary McCracken, *Management of the Panzootic White-Nose Syndrome through Culling of Bats*, 25 CONSERVATION BIOLOGY 189 (2011).

<sup>19</sup> See, e.g., *Local Land Services Act 2013* (NSW) ss 130 & 142.

<sup>20</sup> See, e.g., AUSTL. CAPITAL TERRITORY, DEP'T OF ENV'T & RECREATION, TERRITORY & MUNICIPAL SERVS., NAMADGI NATIONAL PARK FERAL HORSE MANAGEMENT PLAN (2007), available at [http://www.tams.act.gov.au/\\_data/assets/pdf\\_file/0005/441455/NNP-Feral-Horse-Mgt-Plan-2007.pdf](http://www.tams.act.gov.au/_data/assets/pdf_file/0005/441455/NNP-Feral-Horse-Mgt-Plan-2007.pdf); Victoria, Department of Environment and Primary Industries, *Victorian Alps Wild Horse Management Plan*, PARKS VICTORIA, <http://parkweb.vic.gov.au/explore/parks/alpine-national-park/plans-and-projects/victorian-alps-wild-horse-management-plan> (last visited December 1, 2014); NEW SOUTH WALES GOV'T, DEP'T OF PRIMARY INDUS., WILD DOG MANAGEMENT STRATEGY 2012–2015 (2012), available at [http://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0004/445234/NSW-Wild-Dog-Management-Strategy-2012-2015.pdf](http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0004/445234/NSW-Wild-Dog-Management-Strategy-2012-2015.pdf); NEW SOUTH WALES GOV'T, OFFICE OF ENV'T & HERITAGE, MANAGEMENT PLAN FOR CANE TOADS IN NATIONAL PARKS AND RESERVES (2012), available at <http://www.environment.nsw.gov.au/resources/pestsweeds/13772canetdmp.pdf>; NEW SOUTH WALES NAT'L PARKS & WILDLIFE SERV., KOSCIUSZKO NATIONAL PARK HORSE MANAGEMENT PLAN (2008), available at <http://www.environment.nsw.gov.au/resources/nature/KNPHorseManagementPlanFinal08.pdf>; NEW SOUTH WALES, DEP'T OF ENV'T & CONSERVATION, DEER MANAGEMENT PLAN 2005–2008: FOR ROYAL NATIONAL PARK AND NPWS PARKS AND RESERVES IN THE SYDNEY SOUTH REGION (2005), available at <http://www.environment.nsw.gov.au/resources/parks/RoyalNPDDeerManagementPlan2005Approved.pdf>; AUSTL., DEP'T OF THE ENV'T, WATER, HERITAGE & THE ARTS, THREAT ABATEMENT PLAN FOR PREDATION BY THE EUROPEAN RED FOX, at Objective 4 (2008), available at <http://www.environment.gov.au/system/files/resources/1846b741-4f68-4bda-a663-94418438d4e6/files/tap-fox-report.pdf>.

Two common but seemingly contradictory themes can be drawn from parsing these instruments. The first is that lethal methods are the main control tool. And the second is that lethal methods are ineffective as a long-term strategy.<sup>21</sup> Control methods, taken from the Model Codes, are summarised in Table 1.

The processes at work in the Model Codes are analogous to those found in recent textual analyses of environmental impact statements, where risk is presented in a way that supports government development policies.<sup>22</sup> In the Codes, the risk posed by pest animals is invoked to support a notion of control that is effectively restricted to lethal measures. Even where non-lethal methods are explored, they are described as impracticable (see Table 1). For camels, goats, horses, and donkeys, mustering and shooting are preferred. For pigs, rabbits, foxes, and dogs, lethal baiting is the method of choice. Non-lethal methods are explored but rejected. The inference is that, unless pest animals are killed, management goals will not be fulfilled. Killing is thus entrenched as an integral part of the reality of dealing with pest species and is the defining feature of control as explicated in the Codes.

The Model Codes do warn that regimes need to be refocussed, inasmuch as “animal control is just one aspect of an integrated approach to the management of production and natural resource systems. . . . Unless actions are well planned and coordinated across an area, individual [animal] control programs are unlikely to have a lasting effect.”<sup>23</sup> The same view emerges from reviews of three threat abatement plans (TAPs) undertaken by the Department of the Environment at the federal level: the Rabbit Review,<sup>24</sup> the Goat Review,<sup>25</sup> and the Fox Review.<sup>26</sup> In each case, lethal methods were, and continue to be, used

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<sup>21</sup> NEW SOUTH WALES, OFFICE OF ENV'T & HERITAGE, THREAT ABATEMENT PLAN FOR PREDATION BY THE RED FOX (*VULPES VULPES*) 3 (2011), available at <http://www.environment.nsw.gov.au/resources/pestsweeds/110791FoxTAP2010.pdf>; THREAT ABATEMENT PLAN FOR PREDATION BY THE EUROPEAN RED FOX, *supra* note 20; AUSTR., DEP'T OF THE ENV'T & HERITAGE, THREAT ABATEMENT PLAN FOR PREDATION, HABITAT DEGRADATION, COMPETITION AND DISEASE TRANSMISSION BY FERAL PIGS, ch. 4 (2005), available at <http://www.environment.gov.au/system/files/resources/eddf958-49e0-4c11-a994-68b113724b3a/files/feral-pig-tap.pdf>; THREAT ABATEMENT PLAN FOR RABBITS, *supra* note 4.

<sup>22</sup> Hervé Corvellec & Asa Boholm, *The Risk/No-risk Rhetoric of Environmental Impact Assessments (EIA): The Case of Offshore Wind Farms in Sweden*, 13 LOCAL ENV'T 627 (2008).

<sup>23</sup> See the Best Practice Management sections of the Model Codes, *supra* note 9.

<sup>24</sup> AUSTR., DEP'T OF THE ENV'T, THREAT ABATEMENT PLAN FOR COMPETITION AND LAND DEGRADATION BY RABBITS REVIEW 2008–2012 (2012), available at <http://www.environment.gov.au/system/files/resources/7097f100-4a22-4651-b0e1-df26e17c622c/files/tap-review-rabbit.pdf>.

<sup>25</sup> AUSTR., DEP'T OF THE ENV'T, THREAT ABATEMENT PLAN FOR COMPETITION AND LAND DEGRADATION BY UNMANAGED GOATS (2008): FIVE YEARLY REVIEW (2013), available at <http://www.environment.gov.au/system/files/resources/2109c235-4e01-49f6-90d0-26e6cb58ff0b/files/tap-review-unmanaged-goats.pdf>.

<sup>26</sup> AUSTR., DEP'T OF THE ENV'T, THREAT ABATEMENT PLAN FOR COMPETITION AND LAND DEGRADATION BY THE EUROPEAN RED FOX (2008): FIVE YEARLY REVIEW (2013), available at <http://www.environment.gov.au/system/files/resources/1846b741-4f68-4bda-a663-94418438d4e6/files/tap-review-red-fox.0.pdf>.

TABLE 1. Control Methods

Code (Humane)	Comparison of Control Methods
Control of feral camels	Favours aerial shooting and ground shooting, mustering, and trapping at water. Fertility control is more humane; however, delivery of contraceptives is difficult. Not currently feasible for large camel populations over an extended range.
Control of feral cats	Favours shooting, trapping, lethal baiting, and exclusion fencing. Current control methods are expensive, labour intensive. When correctly carried out, shooting is humane.
Control of feral donkeys	Favours aerial culling—shooting donkeys from helicopters with high-powered rifles. Although exclusion fencing is more humane, it is expensive to construct and maintain. It can also concentrate donkeys in locations where they die of thirst. The use of tranquilizer darts and euthanasia is not feasible over large areas; they are costly and labour intensive.
Control of feral goats	Favours mustering, trapping at water, exclusion fencing, aerial and ground shooting. Exclusion fencing is more humane; however, it is expensive to construct and maintain. Also goats breach fencing, but it may be of some use in environmentally sensitive areas.
Control of feral horses	Favours trapping at water, mustering, aerial and ground shooting. Exclusion fencing, fertility control, tranquilizer darts, and euthanasia are not feasible over large areas; they are costly and labour intensive.
Control of feral pigs	Favours lethal baiting; however, not all poisons are equally humane. Animals can experience pain and suffering period before death. Shooting is humane.
Control of foxes	Favours lethal baiting, shooting, trapping, den fumigation, and exclusion fencing. Lethal baiting is the most effective; however, not all poisons are equally humane. Animals can experience pain and suffering period before death. Fertility control is difficult to implement; no long-acting or permanent methods available.
Control of rabbits	Favours lethal baiting, warren fumigation and destruction, shooting, trapping, exclusion fencing, and biological control with RHDV and myxomatosis. Exclusion fencing is more humane but expensive to construct and maintain. It has some use in protecting agricultural and conservation areas.
Control of wild dogs	Favours lethal baiting, shooting, trapping, and exclusion fencing. The use of guard animals has not yet been fully evaluated in Australia.

to control the species. None of the reviews concluded, however, that culling had achieved the TAP's objectives.<sup>27</sup> Other action plans and fact sheets on pest animals reach similar conclusions. The Camel Plan, for example, points out

<sup>27</sup> THREAT ABATEMENT PLAN FOR COMPETITION AND LAND DEGRADATION BY RABBITS REVIEW 2008–2012, *supra* note 24, at 2, 21. The Review notes that culling represents a way of killing as many rabbits as possible

that population growth continues, except in the southern part of the Simpson Desert, notwithstanding sustained camel culling.<sup>28</sup> Culling has also not had long-term success in eradicating water buffalo. Although buffalo numbers were reduced in the 1980s and 1990s, populations have since bounced back.<sup>29</sup>

There is nothing new about this.<sup>30</sup> So why does the preference for culling persist? One answer lies in the fact that culling at least reduces numbers in the short term, providing breathing space.<sup>31</sup> This could be relevant in an emergency or where a rapid response is called for.<sup>32</sup> The TAP reviews provide further insight into why culling has become so entrenched. It boils down to a continuation of existing measures in the absence of updated research. The Goat Review notes that at the time the TAP was devised, control methods focussed on “mustering, trapping and shooting.”<sup>33</sup> Since that time, some research has been conducted on the comparative success of these methods, but this has not been supplemented by research that considers whether improvements can be made on these traditional methods. Nor has research been conducted that precisely evaluates the effect of pest animals on critical habitat and species.<sup>34</sup> These deficiencies are exacerbated by difficulties in gathering data on environmental impacts and outcomes because land managers rarely deal with only one species, by incomplete understanding of the effect of control techniques on non-target species,<sup>35</sup> and by lack of knowledge with respect to interactions of pest animals among themselves and native animals.<sup>36</sup>

If lethal killing is ineffective, is it ethically defensible?

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but that, while this reduces numbers in the short term, it is less effective in the long term. The Goat Review candidly admits that implementation of the TAP “has not achieved the goal of minimising the impacts of feral goats.” AUSTL., DEP’T OF THE ENV’T, *supra* note 25, at 3. The Fox Review similarly notes that implementation of the TAP has not reduced the impact of foxes on biodiversity, although there was some success eradicating foxes from islands. AUSTL., DEP’T OF THE ENV’T, *supra* note 26, at 5, 9–10.

<sup>28</sup> AUSTL., DEP’T OF SUSTAINABILITY, ENV’T, WATER, POPULATION & COMMUNITIES, NATIONAL FERAL CAMEL ACTION PLAN: A NATIONAL STRATEGY FOR THE MANAGEMENT OF FERAL CAMELS IN AUSTRALIA, ¶ 5.4, available at <http://www.environment.gov.au/system/files/resources/2060c7a8-088f-415d-94c8-5d0d657614e8/files/feral-camel-action-plan.pdf>.

<sup>29</sup> AUSTL., DEP’T OF SUSTAINABILITY, ENV’T, WATER, POPULATION & COMMUNITIES, THE FERAL WATER BUFFALO (BUBALUS BUBALIS), available at <http://www.environment.gov.au/system/files/resources/b4a187ba-7a72-4ed2-ab06-7a8b8a1b87a0/files/buffalo.pdf>.

<sup>30</sup> PENNY OLSEN, AUSTRALIA’S PEST ANIMALS: NEW SOLUTIONS TO OLD PROBLEMS 31, 41, 53 (1998).

<sup>31</sup> MANAGING THE IMPACTS OF FERAL CAMELS ACROSS REMOTE AUSTRALIA 27 (M. McGregor et al., eds., 2013).

<sup>32</sup> Holly Doremus, *A Policy Portfolio Approach to Biodiversity Protection on Private Lands*, 6 ENVTL. SCI. & POL’Y 217, 225 (2003).

<sup>33</sup> AUSTL., DEP’T OF THE ENV’T, *supra* note 25, at 3.

<sup>34</sup> *Id.* at 3–4.

<sup>35</sup> *Id.*

<sup>36</sup> *Id.*; AUSTL., DEP’T OF THE ENV’T, THREAT ABATEMENT ADVICE FOR PREDATION, HABITAT DEGRADATION, COMPETITION AND DISEASE TRANSMISSION BY FERAL PIGS 4–5 (2013), available at <http://www.environment.gov.au/system/files/pages/379b2dd1-e820-4de6-88ed-3dfcea614d1d/files/threat-abatement-advice-feral-pigs.pdf>.

### 3. ENVIRONMENTAL ETHICS AND THE ETHICAL GAP

Whether one evaluates the morality of animal control regimes from an ethical monist or pluralist approach, the exercise starts from the identification of values. This casts light on why regimes are structured the way they are and is a precursor to appraising whether regimes safeguard the values they advocate.<sup>37</sup> Ethical considerations also go beyond these empirical issues to the normative dimensions of best moral practice and thus consider how animal control regimes ought to be designed and implemented.<sup>38</sup> The identification of values is thus an important step for gauging the ethical gap between existing regulation and best moral practice.

The reality is that Australia's pest animal control regime struggles to fulfill at least three explicit values: protecting the environment and natural resource systems;<sup>39</sup> protecting agriculture;<sup>40</sup> and providing an effective system for regulating pest animals.<sup>41</sup> Shortcomings on all three counts are tellingly illustrated by the fact that, apart from a few isolated examples, populations of pest species in Australia are increasing in size and/or range. Management objectives are, therefore, not being met. There is clearly a question, then, about whether killing is being undertaken for the greater good or in the public interest, and whether the regime rests on truly ethical foundations.

One means of justification would rely on utilitarian principles, which require the consideration and weighing up, or balancing, of the interests of all parties to achieve an ideal maximum net benefit. So where eradication and control seek to protect environmental and economic objectives, this can be seen as killing for the greater good if it results in a larger balance of benefits over the detriment of killing pest animals. An alternative, preference utilitarian view, argues in favour of the principle of equal consideration, meaning that the interests of all parties, including humans and non-humans, are taken into account in an equivalent manner,<sup>42</sup> although this does not also result in all groups being treated identically.<sup>43</sup> A preference utilitarian perspective, in other words, can justify treating animals and hu-

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<sup>37</sup> Holly Doremus, *Environmental Ethics and Environmental Law: Harmony, Dissonance, Cacophony, or Irrelevance?* 37 U.C. DAVIS L. REV. 1, 6 (2003).

<sup>38</sup> *Id.*

<sup>39</sup> See the Background, Best Practice Pest Management and Facts sections of the Model Codes, *supra* note 9.

<sup>40</sup> Brad Vincent Purcell et al., *Euro-Australian Culture and Dilemmas within the Science and Management of the Dingo*. *Canis lupus dingo*, in SCIENCE UNDER SIEGE: ZOOLOGY UNDER THREAT 114, 116 (Peter Banks, Daniel Lunney, & Chris Dickman, eds., 2012).

<sup>41</sup> See the Background, Best Practice Pest Management, and Facts sections of the Model Codes, *supra* note 9.

<sup>42</sup> Peter Singer, *All Animals Are Equal*, in ENVIRONMENTAL PHILOSOPHY: FROM ANIMAL RIGHTS TO RADICAL ECOLOGY 28, 30 (Michael Zimmerman, ed., 2001); PETER SINGER, ANIMAL LIBERATION 5, 20–21 (2009).

<sup>43</sup> Singer (2001), *supra* note 42, at 26, 28, 30; SINGER (2009), *supra* note 42.

mans differently, as much as it can justify treating different types of animals differently.<sup>44</sup>

In contrast to utilitarian approaches, there is an argument that animals have interests of their own that should be given the same weight as comparable human interests.<sup>45</sup> If individual animals do have interests, they also have intrinsic value and “a welfare, or a good of [their] own, that matters from a moral point of view.”<sup>46</sup> On this basis, lethal measures are very hard to justify as being for the greater good.<sup>47</sup> By the same token, if a pest animal has intrinsic value, so, too, presumably do other animals or species, native wild animals, say, or domestic pets, or agricultural livestock that may be harmed if the pest animal is not kept properly under control. So under some circumstances, lethal methods, such as hunting, might be allowed.<sup>48</sup>

Additional ethical complications arise because, although utilitarian principles ostensibly offer the prospect of balancing the goods and bads of killing pests, there may be only limited consideration of how the balance is achieved—whether, for example, non-lethal methods might be as effective as hunting. It is also hard to know how far the idea that nature has intrinsic worth should be taken. Can the culling of animals be justified on the basis of moral considerations, for example, where sentient animals are culled because they threaten an endangered but non-sentient plant,<sup>49</sup> which might provide critical habitat for another sentient species?

For all these reasons, pest animal regimes often resemble internecine encounters that are difficult to rationalize from an ethical perspective. It is a concern made all the stronger because in a functional sense there is rarely any differentiation made between the implementation of eradication and control measures, even though the two systems contemplate rather different outcomes.

Eradication “requires 100 percent removal of a pest species from the target area. . . [and is]. . . a final resolution to the problems caused by pest species.”<sup>50</sup> Clearly, the aim is to reduce a species’ numbers to zero, and for this reason, eradication is frequently seen in terms of deploying lethal measures. Undoubtedly, in some cases, as occurs in confined areas such as islands,<sup>51</sup> or where species have only recently been introduced,<sup>52</sup> eradication is practicable.

<sup>44</sup> GARY STEINER, *ANTHROPOCENTRISM AND ITS DISCONTENTS* 7 (2005).

<sup>45</sup> Tom Regan, *Animal Right, Human Wrongs*, in *ENVIRONMENTAL PHILOSOPHY, FROM ANIMAL RIGHTS TO RADICAL ECOLOGY* 41, 50–51 (Michael Zimmerman, ed., 2001).

<sup>46</sup> GARY VARNER, *IN NATURE’S INTERESTS? INTERESTS, ANIMAL RIGHTS, & ENVIRONMENTAL ETHICS* 6, 77 (1998).

<sup>47</sup> Boorse, *supra* note 8, at 328–329.

<sup>48</sup> VARNER, *supra* note 46, at 113.

<sup>49</sup> *Id.*

<sup>50</sup> Tasmania, Parks & Wildlife Serv., *Macquarie Island Pest Eradication Project: The Eradication Project*, PARKS.TAS.GOV.AU, <http://www.parks.tas.gov.au/?base=12997> (last visited July 30, 2015).

<sup>51</sup> OLSEN, *supra* note 30, at 53.

<sup>52</sup> NEW SOUTH WALES, DEP’T OF PRIMARY INDUS., *INVASIVE SPECIES PLAN, 2008–2015*, at 14–15 (2008), available at [http://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0020/236900/nsw-invasive-species-plan.pdf](http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0020/236900/nsw-invasive-species-plan.pdf).

Pest species have been eradicated from Macquarie Island, for example, by baiting and shooting.<sup>53</sup> In the long term, this approach arguably involves the killing and suffering of fewer animals than repeated efforts to control numbers and also has the benefit of recovering threatened or endangered species. So, if the methods used are humane, it is conceivable that, at least from a utilitarian perspective, lethal eradication measures can be justified. Lethal methods would also be justified where natural phenomena such as droughts lead to the slow death of animals and more suffering compared to a clean kill.<sup>54</sup>

However, the use of lethal methods to control animals raises different considerations, because control measures require continuing and repeated efforts to ensure that a species is kept in check. Where the same methods are used for control as they are for eradication, this entrenches killing as a normal way of managing animals, without examining why it ought to be the case.

There are also the ethics of alternative and non-lethal control methods to be taken into account. In the Middle Island Maremma Project in the Australian state of Victoria,<sup>55</sup> for example, where the goal was to protect the little penguin from fox attacks, instead of using baiting or shooting to kill foxes, trained Maremma dogs were used to guard the penguins.<sup>56</sup> The project began in 2006, and since then, rangers have found no signs of fox predation. The number of penguins increased from fewer than 10 in 2005 to 180 in 2013.<sup>57</sup>

A dependence on lethal control methods also raises the question of whether the role and place of pest animals in ecosystems is adequately understood. Dingoes, for example, have long been controlled by shooting and trapping to remove a perceived threat to the livestock industry.<sup>58</sup> But inasmuch as more than a hundred years of effort have not made the dingo problem go away, it may be time to ask whether there are ways to make the dingoes and the livestock industry adapt to each other's coexistence in a landscape in which both are likely to persist.

This is not to say that the consequences for agriculture of moving to non-lethal methods or the appropriateness, in some cases, of a short-term perspective on control should be ignored.<sup>59</sup> All things being equal, short-term imperatives should not be emphasised at the expense of long-term

<sup>53</sup> Tasmania, Parks & Wildlife Serv., *supra* note 50; AUSTR., DEP'T OF THE ENV'T, *supra* note 25, at 9–12. On the consequences of a failed eradication attempt, see Sandro Bertolino & Piero Genovesi, *Spread and Attempted Eradication of the Grey Squirrel (Sciurus carolinensis) in Italy and Consequences for the Red Squirrel*, 109 BIOLOGICAL CONSERVATION 351, 356 (2003).

<sup>54</sup> STEINER, *supra* note 44, at 163.

<sup>55</sup> Victoria, Warrnambool City Council, *Middle Island Maremma Project*, <http://www.warrnambool.vic.gov.au/middle-island-maremma-project> (last visited July 30, 2015).

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

<sup>58</sup> Purcell et al., *supra* note 40, at 116.

<sup>59</sup> Doremus, *supra* note 32, at 225.

objectives.<sup>60</sup> But the difficulty is that the achievement of long-term goals, such as dingo and livestock coexistence, requires new policy paradigms—approaches that rely less on manipulating the external environment and more on an acceptance that humans ought to place restrictions on their own “lifestyles and cultural practices.”<sup>61</sup>

Beyond the question, then, of whether pest control schemes can adjust to the biology of pest species lies the question of how to take account of the part that humans have played in creating conditions that have fostered the introduction and/or spread of species. Part of the problem stems from the fact that land managers frequently do not adequately take into consideration complex interactions between human land uses and the development of pest species.<sup>62</sup>

This trend began with the displacement of Aboriginal people from their traditional lands by Europeans who transformed the landscape to support sheep and cattle grazing. The presence of dingoes came to be regarded as incompatible with these pastoral activities, and the dingo’s status was converted to “pest.” Kangaroo numbers increased in tandem with the culling and removal of dingoes, leading more than one commentator to draw attention to the links between dingo culling, “the displacement of Aboriginals from grazing lands,” and increasing kangaroo numbers.<sup>63</sup>

Moreover, because killing animals has become such an accepted, even ingrained, part of dealing with pest species in Australia, a new paradigm, particularly one that curtails human land use, will be difficult to sell. This is clearly illustrated by frequent recommendations to cull bats because they damage crops, spread disease, or are noisy.<sup>64</sup> The annoyance value of bats is now apparently so high that local councils may be given additional powers to eradicate and control the species.<sup>65</sup> These proposals are ostensibly intended to stop the spread of disease, although the Australian Veterinary Association has criticized the plans by noting the need to appreciate human–bat interactions from a wider ecological perspective.<sup>66</sup>

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<sup>60</sup> Purcell et al., *supra* note 40, at 116–117.

<sup>61</sup> PAUL TAYLOR, *RESPECT FOR NATURE* 258 (1986).

<sup>62</sup> David Croft, *The Relationships between People and Animals: An Australian Perspective*, in AUSTRALIAN PEOPLE & ANIMALS IN TODAY’S DREAMTIME 1, 12 (David Croft, ed., 1991); Mike Letnic, Euan Richie, & Christopher Dickman, *Top Predators as Biodiversity Regulators: The Dingo Canis Lupus Dingo as a Case Study*, 87 BIOLOGICAL REV. 390 (2012); David Choquenot & David Forsyth, *Exploitation Ecosystems and Trophic Cascades in Non-equilibrium systems: Pasture–Red Kangaroo–Dingo Interactions in Arid Australia*, 122 OIKOS 1292, 1298 (2013).

<sup>63</sup> *Id.*

<sup>64</sup> The decision in *Booth v Bosworth* [2001] FCA 1453 sets out the facts of the damage caused by flying foxes to a lychee plantation, the subject of the decision.

<sup>65</sup> Kate Galloway, *Move on Powers for Bats*, 38 ALTERNATIVE L.J. 131 (2013).

<sup>66</sup> BOOTH ET AL., *supra* note 18; Degeling & Kerridge, *supra* note 18; Racey, Hutson, & Lina, *supra* note 18; Hallam & McCracken, *supra* note 18.

Part of the problem here, too, is that society gives insufficient consideration to its own environmental footprint, thereby creating an ethical gap. Humanity, for example, ignores the adverse impacts on biodiversity of activities such as land clearing for livestock agriculture while simultaneously pointing the finger at pest species such as the dingo for biodiversity losses.<sup>67</sup>

In the final analysis, the use of lethal methods lulls stakeholders into a false sense of security, encouraging humans to sidestep their own role in creating the problem of pest animals. The importance of the latter is illustrated by the recent listing of overabundant noisy miners as a threatening process, both in New South Wales and at the federal level.<sup>68</sup> Although the Threatened Species Scientific Committee recommended that the noisy miners should indeed be listed as a threatening process, it also meaningfully noted that the impacts of noisy miners need to be seen in the broader context of vegetation clearing and the fragmentation of habitat.<sup>69</sup> Tellingly, the Committee said that “abatment of the threats posed by over-abundant noisy miners is a last resort.”<sup>70</sup>

#### 4. CONCLUSION

The preceding analysis makes the case that society’s obligations to pest animals cannot be limited by notions of welfare, based on a utilitarian construct of humaneness. It is also legitimate to consider the life of individual species, not least because humans need to live with the nature they have created, including the nature they have created by introducing species to places where they did not naturally occur.<sup>71</sup> At the same time, pest species can cause damage, and if society’s aim is to limit that damage and/or to protect nature, then there needs to be some clear and explicit consideration of the ethics involved in turning to, and relying on, wholesale killing as the chief means of accomplishing control. It seems quite clear that wholesale culling for its own sake is inconsistent with

<sup>67</sup> Purcell et al., *supra* note 40, at 116, say that the 1996, 2001, and 2006 National Australian State of the Environment reports indicate “that land clearing and agriculture has had a more detrimental impact on biodiversity in 200 years than dingoes had in 5000 years.”

<sup>68</sup> AUSTR., DEP’T OF THE ENV’T, THREATENED SPECIES SCIENTIFIC COMM., ADVICE TO THE MINISTER ON AMENDMENTS TO THE LIST OF KEY THREATENING PROCESSES UNDER THE *ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999*, AGGRESSIVE EXCLUSION OF BIRDS FROM POTENTIAL WOODLAND AND FOREST HABITAT BY OVER-ABUNDANT NOISY MINERS (*MANORINA MELANOCEPHALA*) (March 6, 2013), available at <http://www.environment.gov.au/system/files/pages/a564219c-dd63-4187-a578-6e3cddc7ca31/files/noisy-miner-ktp-advice.pdf>; NEW SOUTH WALES, OFFICE OF ENV’T & HERITAGE, NSW SCIENTIFIC COMMITTEE, AGGRESSIVE EXCLUSION OF BIRDS FROM WOODLAND AND FOREST HABITAT BY ABUNDANT NOISY MINERS *MANORINA MELANOCEPHALA* (LATHAM 1802), FINAL DETERMINATION, (2013), available at <http://www.environment.nsw.gov.au/resources/threatenedspecies/FDNoisminerKTP.pdf>.

<sup>69</sup> AUSTR., DEP’T OF THE ENV’T, *supra*, note 68.

<sup>70</sup> *Id.*

<sup>71</sup> Low, *supra* note 10.

several established understandings of what it means to be environmentally ethical.

Arguably, it is equally clear that as a practical matter, Australia's pest animal regime is underpinned by the use of lethal methods despite the fact that those methods do not achieve the desired results. The Model Codes broach the use of alternatives and caution against killing as an effective long-term solution, but they also conclude that non-lethal means are expensive, time-consuming, or not yet developed. The time is probably fast approaching when those excuses will be insufficient to perpetuate a regime against which both practical and ethical complaints are intensifying.