Uncivilized Behaviors: How Humans Wield “Feral” to Assert Power (and Control) over Other Species

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Abstract

This paper examines the use of the term “feral” as a form of control over other animals. The concept of this “power word” is explored within the context of what it means for those who find themselves labelled as such. As a prefix, “feral” is used by various interest groups to justify the treatment of subpopulations of species, particularly with regards to wildlife conservation. The “feral” label differentiates animals that are perceived as being out of place or out of control from those who are kept as companions or commodities. “Feral” is most often used to describe an unwelcome presence or noise, and can be contrasted to alternative words, such as “wild” or “free-living” that control how these presences are perceived by humans.
Keywords

feral – power – anthrozoology – companion animals – wildlife – soundscape – noise – conservation

Language is a social experience; therefore, the meanings of words woven into discourse bend and flow around humans as they share social encounters (see Conley et al., 2019; Epstein, 2008; Mol, 2014). Within academia, professions, and everyday life certain words take on power when they are, sometimes forcibly, applied to others. “Stray,” “aggressive,” “domesticated,” “wild,” “tame,” “endangered” and “feral” are all terms used to identify varying distances between nonhuman animals and human animals (see Ingold, 2000). These degrees of separation give humans a sense of power over animals. Szydlowski (2021) termed these labels “power words” as a nod to Foucault (2008), an idea of language as a form of control. By naming objects, concepts, and persons, we begin to define them and impose normative definitions of what that label confers. Foucault describes our continuing use of societal power to form and manipulate children into socially acceptable beings; how the written word, wielded only by “intellectuals” prior to mass education, gave the wielder power over the masses (Foucault, 1984). Words have the power to promote or to repress. In the case of the word “feral,” humans are given the power to define the rights of animals to hunt, procreate, or even exist in certain situations.

Scientific definitions of feral animals are intrinsically tied to Darwinian ideas of domestication as a biological process whereby multigenerational genetic selection for traits renders organisms better suited for life with humans (Bidau, 2009; Ingold, 2000; Wilson et al., 2018; Zeder, 2015). As such, feral animals are those who for whatever reason are no longer living under human control. However, the term is far from benign. Colonial-era usage renders “domestication” itself a contentious word; owing to its association with those who practiced animal husbandry, “domestication” became synonymous with “civilized” and antithetical to “savage” (Anderson, 1997; Russell, 2007). Domesticated animals who subsequently live apart from humans, or animals who exist beyond human control are further degenerated by being deemed “feral” (Wilson et al., 2018). However, not all domesticated animals who live independently of humans are deemed feral. For example, “wild” and “feral” are applied interchangeably to free-roaming horses, depending on whether their presence is welcomed by humans (Bhattacharyya et al., 2011). Functional definitions of “feral” are applied to understand or control individuals. In the case
of cats, “feral” is commonly used to define individuals who missed a developmentally defined window of opportunity to become socialized to humans (McCune, 1995). However, the term is also applied to cats who, regardless of their socialization status, currently live independent lives (Slater, 2002). Conservationists apply “feral” to animals deemed not to belong to the “natural” landscape (Wilson et al., 2018; Bonacic et al., 2019). Conversely, “feral” implies a wildness and has been framed by Monbiot (2014) as a return to a more natural state by defying the orderliness imposed by modern societies.

When asked, “What does ‘feral’ mean to you?” respondents on animal-interest social media platforms articulated a diverse range of interpretations (Hill, 2021). Alternating between noun and adjective, “feral” was used to both express a sense of desperation and one of freedom. More often than not, “feral” had negative connotations, used synonymously with “wild” or “vicious” and occasionally applied as a derogatory term for certain humans. However, some respondents embraced “feral” as simply the identity or state of being outside of established norms. “Feral” is a fluid term reliant on both its user and the situation in which it is used to derive meaning. Insight into the colloquial uses of words and how meanings are constantly evolving can be gained from observing how they are used in casual social media interactions. The top definition for “feral” in the Urban Dictionary (2019) is, “A word that basically means you went insane and acted like a feral animal might.” This definition alludes to an action built upon the idea of a feral animal being one that is out of control. “Feral” is a subjective term, and a domesticated companion animal may behave in a manner considered “feral” (such as hissing and hiding from humans). This could be a contingent reaction to certain humans or circumstances, or the more generalized “wild” behavior of a maladjusted individual (Gering et al., 2019).

Throughout this paper we use the term “animal” to refer to all nonhuman animals. We recognize that this is a problematic convention, and that the distinction between human and nonhuman animals underlies division, power, and anthropocentric privilege (Stanescu & Twine, 2012). We are not applying the term “animal” to imply an inferiority to humans, but rather using it in place of “nonhuman” or “more than human” due to the implications they carry (Beirne & South, 2015; Murphy et al., 1998; Probyn, 2016.) Language that uses terms like “human” and “nonhuman” serves to elevate the human above other animals. Conversely terms such as “feral” are used to demote “other” animals, including humans (Wilson et al., 2018). This paper examines how “feral” is used by different human-interest groups to justify their treatment of subpopulations of species.
The Death Sentence for Australian “Feral” Cats

With respect to protecting endangered species, science indicates that predation by free-living domestic cats (*Felis catus*) is a serious problem in certain ecosystems (Doherty et al., 2016; Marra & Santella, 2016; Woinarski et al., 2015). Wildlife conservation ethics are a complex subject that are beyond the scope of this paper (for further discussion see: Hampton et al., 2019; Van Houtan, 2006). Here we are concerned with how words like “feral” and associated language are used to devalue members of a particular species and render lethal conservation strategies more palatable. Conservationist literature and policy invariably uses the prefix “feral” to refer to free-living cat populations (Wilson et al., 2018). For example, the Australian Government implemented a public policy that proposed killing two million feral cats by 2020 (Commonwealth of Australia, 2015). Words such as “hunt,” “predate,” “cull,” and “murder,” are used by scientists, policy-makers, animal rights activists, and the media to alternately legitimize or villainize the killing behaviors of both humans and other animals (Feber et al., 2017; Jepson, 2008; Sutton & Taylor, 2019; Stewart & Cole, 2015).

Sutton & Taylor (2019) discuss the role of the Australian media in defining the boundaries of classifications such as “feral” or “pest” that render groups of free-living animals more killable. The definition of “feral” can mean the difference between life and death in the context of wildlife management. In New Zealand, a narrow definition safeguards the welfare of free-living urban cats and provisioned colonies because legislation mandates that cats who are indirectly dependent on humans cannot be classified as feral (Department of Conservation, n.d.; Farnworth et al., 2010). However, in New Zealand and elsewhere, the “feral” label still exists and is used to condone the killing of “undesirable” populations. The mass killing of “undesirable” animals is not new to Australia. Early colonial law condoned large-scale killing of native species (those present in Australia before British colonization) because these “exotic” animals invoked unease among the settlers and were a perceived threat to introduced animals (White, 2013). During the 1840s, European settlers began taking an interest in “their” new land, and the first Australian scientific societies and natural history museums were established (Dunlap, 1993). In the twentieth century, a new conservation ethic was born that was antithetical to earlier colonial efforts to acclimatize British wild animals and livestock to the continent (White, 2013). Through a similar control ethic, the descendants of the European colonists have taken it upon themselves to attempt to reverse the
damage caused by their ancestors. The dominant control discourse, promoted by the Australian Government (n.d.), does not reflect upon or question the right to assume governorship over wildlife. Both domination and preservation discourses use language to justify their authority and assert control over nature. The terms “introduced” and “invasive” are used to differentiate between “non-native” species whose presences are considered desirable and those that are not. Many “introduced” species were already thriving in parts of Australia by the time they were reclassified as “invasive” (Woinarski et al., 2015). Free-living domesticates are dubbed “feral” to differentiate them from other members of the same species that are used in agriculture, sport, or as service or companion animals in Australia. The strategy appears to work because using the word “feral” rather than “stray” renders lethal control methods more palatable, even amongst cat guardians (Farnworth et al., 2011).

What if we were to change our perception of “feral” and embrace these liminal beings as part of a new ecosystem? Wallach & Ramp (2015) advocate coexistence with Australia’s free-living cats by pointing out that they successfully coexist with many “native” species and become a functioning part of the ecosystem. Contrary to the rhetoric of “Western” conservation scientists, Indigenous Australian philosophies tend not to differentiate between “feral” (non-native) and “native” animals while avoiding anthropocentric positions, but rather view the contemporary ecosystems as an integrated whole (Rose, 1995; Rose, 2005). In a controversial article, Wallach & Ramp (2015) proposed that the Australian government could adopt a similar philosophy and accept that these introduced species are here to stay. This would represent a paradigm shift in conservation biology that embraces novel ecosystems (Hobbs et al., 2006; Hobbs et al., 2009), rather than a fruitless effort to restore the past (Lynn et al., 2019; Wallach et al., 2020). It is not our intention to argue the scientific validity of coexistence over control strategies here, and it should be noted that the concept of novel ecosystems is not without criticism (Driscoll & Watson, 2019; Miller & Bestelmeyer, 2016). However, how language is used within the rhetoric of control is problematic because it depersonalizes or devalues each individual according to the ideologies of only the dominant culture. All that differentiates a feral cat from a stray cat or family pet is the circumstances of birth. The “feral” prefix identifies certain populations as “other” and “undesirable”; it creates the perception that they are inherently different from the “beloved” members of the same species. As such, difficult ethical questions are more easily sidestepped, and control methods are more readily accepted as being necessary.
Feral Soundscapes: Be Seen but Not Heard?

As described above, a “feral” animal is one that exists in an ecosystem where they are considered out of place. Because of this, feral animal voices are often described as “noise” (Dobeic et al., 2011; Gordon, 2020; Neville, 1989). “Feral” is not only applied to animal bodies, but also to their actions and their voices. Although animal vocalizations may “frustrate human-centered neighborhood norms” (Gordon, 2020, p. 1), anchoring such vocalizations to “feral” animals alone is problematic. Feral behaviors and vocalizations are sometimes attributed to non-feral animal bodies. Animal voices, untethered from their corporeal origins may become unidentifiable from their human-defined bodily categorization. Once unleashed, such vocalizations may transgress human sonic expectations, becoming “feral” vocalizations, branded with the same classifications as physical feral lifeforms. Animal voices are often described as “noise” or “disturbances” of human-centered soundscape ideals (Schafer, 1977), and noise is defined as a “disturbance caused by sounds, discordancy…. [E]sp. disturbance made by voices; shouting, outcry” (Oxford English Dictionary, 2020). Animal voices considered “noise” are unwanted elements of a sonic environment (i.e., a soundscape), and include cats fighting (Neville, 1989) or “yowling” (Ireland & Miller Neilan, 2016, p. 124), fowl cacophonies (Gordon, 2020), barking dogs (Hume, 2010), raucous gulls (Watson, 2013), roosting starlings (Mitchell, 2013), and honking geese (Quetchenbach, 2013). Lei (2003) describes “feral noises” as “discordant” and “deafening” aspects of Chinese theater (p. 292), while West (1993) describes a feral cry as if one were being “dismembered and boiled” (p. 314).

Feral lives are variously described as having characteristics of being out of place (Crowley, 2014; Griffiths et al., 2000; Jones, 2004), out of control (Ashurst & Venn, 2014; Dwyer, 2012; Griffiths et al., 2000), nuisances (Ireland & Miller Neilan, 2016), and polluters (Nagy et al., 2013). Barks, as an example, fracture human desires for manicured soundscapes. Through an anthropocentric filter, they transgress from sonic communication (Péter et al., 2014) to a sonic nuisance (Fielding, 2008; Jégh-Czinege et al., 2020; Righetti, 2005). Consequently, contemporary laws attempt to curb animal voices which float adrift from their fleshy, reprimandable bodies (see Carter, 2016; San José Animal Care Center, n.d.). The acoustic structure of these animal vocalizations were found to affect ear-witnesses (Schafer, 1977) differently. High- and low-pitched, fast, pulsing barking has been shown to irritate people the most (Jégh-Czinege et al., 2020). Research by Pongrác et al. (2016) found men and young people are more likely to be annoyed than women and older people, and people were increasingly annoyed when dogs vocalized their needs and negative emotional states.
(Jégh-Czinege et al., 2020; Pongrác et al., 2016). Pongrác et al. (2016) suggest a theory of “communicative relevance of auditory nuisance” (p. 212) which elicits help or attention but is deemed exceedingly infuriating when the human is unable to intervene – for example, the sound of a distant baby crying.

One study showed that people residing in urban environments considered dog barking more annoying than those in rural communities (Flint et al., 2014). However, this and similar studies (Jégh-Czinege et al., 2020) did not differentiate between the soundscape experiences of long-term and short-term human residents. Olsen (1996) explains animals who relocate across physically anthropocentric, geographic boundaries are often termed “feral.” While Olsen (1996) specifically discusses animal bodies, the concept of “feral” being a transgression of human-defined boundaries could be extended to behaviors and noises. However, when resident canine vocalizations puncture human migrants’ imagined utopian soundscapes, the resident canine voices are relabeled “feral” rather than those of the repositioned human. For example, the transgressing, disconnected canine voices, prone to escalated intensity under anthropogenic environments (Jégh-Czinege et al., 2020), are a constant bone of contention amongst British newcomers to Portugal (see Algarve Daily News, 2013; Angloinfo, 2012; British Expats, 2010).

Dog barking has been described as “meaningless' vocalizations” (Coppinger & Feinstein, 1991, as cited in Péter et al., 2014, p. 63), although this is disputed by others who argue that barks carry intra- and inter-specific information (Jégh-Czinege et al., 2020; Péter et al., 2014; Yin & McCowan, 2004). Perhaps in a more inclusive paradigm, human “feral” migrants would embrace the inter-species conversations, discussions, and communications which are sonically entangled within multispecies zoöpolis (Wolch, 1998) communities, and animal vocalizations would cease to be considered noise “out of place,” “out of control,” or “out of nowhere.”

Wild versus Feral Horses

While “feral” voices may be considered discordant, equine voices and hoof-on-ground sounds engender passion and positive emotions in many human-horse dyadic bonds. However, once again, relationships wax and wane with the fluid perception of horses being of service to humans (Clutton-Brock, 1992; Nagy et al., 2013) or otherwise “out of place” (Crowley, 2014; Griffiths et al., 2000; Jones, 2004). Horses have been domesticated and used by humans in various ways for around 5,000 years; they have helped humans win wars and build cities, industries, communities, societies, and cultures (Busby & Rutland, 2019).
The ability to harness the horse was at one time as important to humans as the ability to harness fire.

In modern society the domestic horse, not fully understood as a pet, a farm animal, or a captive zoo exhibit, is placed in ambiguous and contested discourses with diverse externally directed and historically constructed roles as a source of food, transport (Budiansky, 1997), and pharmacology (Haraway, 2012). Horses may also serve as an ecological facilitator, sporting athlete, recreational partner (Budiansky, 1997), or therapeutic assistant (Lentini & Knox, 2009, 2015), in what Fine (2010) describes as “a goal-directed intervention in which an animal that meets specific criteria is an integral part of the treatment process” (p. 34). This seemingly multipurpose animal, however, which in the species’ most human-directed activity has the ability to act as co-therapist for humans experiencing the breadth and depth of emotional challenge, is also subject to disputed treatment by political, economic and cultural discourses (Linklater et al., 2001).

Groups of equids described as “wild” are all free-roaming offspring of horses who were once owned and managed by humans with greater or lesser degrees of intensity (Linklater, 2000). Exmoor ponies in the UK, for example, can be traced back to a primitive but managed breed, first used as a food source, and later as pack, draught, and riding animals (Petersen et al., 2013). Free-roaming horses in North America (Mustangs) and Australia (Brumbies) are the escaped progeny of colonially introduced domestic stock. The debate surrounding the position of Przewalski’s horse as the only true remaining wild horse by taxonomy was reopened recently by Gaunitz et al. (2018), whose data positioned the breed as a feral descendant of Botai horses domesticated in northern Kazakhstan around 5,500 years ago.

Feral? Or wild? Why choose one or the other? In the context of equids, these adjectives both differ and overlap. Both oppose the concept of an animal that is tame or domesticated; however, while “wild” denotes the positive legitimacy of a free-ranging occupation of home landscapes, richly endowed with ideas of freedom, even romance, “feral” loads the debate with negative concepts of threat and contested resources, colonially introduced and lacking legitimacy. Yet “feral” in its ecological sense denotes a population which was domesticated but can survive and reproduce in a free roaming context (Ransom & Kaczensky, 2016). In a number of US states populated by Mustangs, and for the Brumbies of New South Wales and Victoria, Australia, the term has become politicized, associated with an introduced species no longer welcome and often relegated to the status of ecological pest (Bhattacharyya et al., 2011). In her book *Wild Horse Country*, Ann Owens (2017) describes a free-roaming group of Mustangs who coexisted with the local human population around
Albuquerque. Yet as commuters spread to the area and the horses took up space that houses could occupy, complaints within the community began, and the once-“wild”-now-“feral” Mustangs, whose ancestors had roamed that land for hundreds of years, became the subject of a court dispute. The judge determined that the horses were not strays or feral, but neither were they protected wildlife. They were “something in between,” allowed to roam akin to deer. But they were also the permitted targets of landowners who could shoot them like coyotes. Thus the horse, domesticated, wild, feral or other, retains its ambiguous and contested status, always externally directed by anthropocentric interspecies power relations.

Domestication and Ferality

The idea of ferality appears to be related to that of domestication, as is clearly the case with horses and cats. Ingold (2000) defines as domesticated those animals who are under human control. This control extends to breeding – both the process of breeding for specific characteristics and the actual physical event of breeding. Humans maintain control over these animals’ physical and emotional adaptations, over where these individuals are allowed to live and how they spend their time. If domestication is about control, wildness and ferality are the loss of that control. Animals out of control are defined in part by where they find themselves as well as how closely connected to humanity they remain. Some species find themselves in an undefined space – not quite feral, not quite domesticated, but something rather unique. One such species, introduced but not feral, is the Rhesus macaque (Macaca mulatta) of central Florida. These primates were initially released on an island with the assumption they could not escape. However, the macaques quickly proved they could swim and eventually spread throughout wild spaces. It is unknown whether this particular population was initially wild-caught (and therefore unable to be “feral”) or captive-born (but not domesticated).

Introduced as a way to entertain visitors with an exotic animal element, these macaques have become “out of control” in Florida and pose a potential hazard. These primates carry a herpesvirus that is typically asymptomatic for them but can be fatal in humans (Wisely et al., 2018). Fortunately, no human cases have thus far been reported (Wisely et al., 2018). In articles discussing their origins, these individuals are referred to as “free-ranging” and not feral, even though Rhesus macaques (Wolfe & Peters, 1987) meet the biological definition of domesticated animals (Price, 2003). Some of these macaques were trapped and sterilized in the 1990s; others were captured and sold (Montague
et al., 1994). This population of monkeys has not been culled, and since 2012 has essentially been left alone, despite various injuries to humans (Riley & Wade, 2016). In fact, researchers described the presence of these monkeys as mutually beneficial, as they are offered treats by visitors who are entertained in the process (Riley & Wade, 2016). Perhaps it is the fact that these primates are plant eaters that creates an acceptable level of ferality, or their similarities to human primates that have kept them safe. Further examination of our definitions of domestication are needed.

Animals who have never been domesticated (see Warwick et al., 2013), however, are not referred to as feral, even upon escape or release to the wild. A prime example can be found in the wild areas of Florida. Reptiles are called “exotic pets” when kept in captivity, and when they escape they simply become non-native nuisance animals. Burmese Pythons (Python regius) and Nile crocodiles (Crocodylus niloticus), initially kept as pets, continue to wreak havoc throughout the state, but there is no consideration of these animals as feral. Ferality indicates some sense of a perceived need for human control, and reptiles seem to have escaped this designation. The state pays hunters to round up and destroy the rapidly spreading python population, and in the last three years they have collected 5,000 individuals with little public complaint. Even People for the Ethical Treatment of Animals (PETA, 2019), an organization normally vocal about animal rights, seems to perceive a need to remove pythons and asks only that humane methods be used. These snakes are considered by some quite damaging to the ecosystem, having nearly eliminated cottontail rabbit and fox populations from the Everglades (United States Geological Survey [USGS], 2020). It seems inconceivable that if a state decided to round up and destroy a designated “feral” animal living in the US, such as domestic cats, to this degree, a public outcry would ensue. It seems that “ferality” has some appeal to Americans, whereas “non-native reptile” does not. This is perhaps a reflection of the anti-immigrant discourse that has been bubbling for many years (see Dancygier & Margalit, 2020; Prieto, 2020), or perhaps it is related to the environmental and political discourse surrounding restoration of “natural” habitats (see Elliot, 1982; Lugo, 2000; Warrick, 1993). Either way, it is an example of how word usage and “power words” create labels that affect how individuals are treated upon their slippage from human control.

Conclusions

Because language is a social experience, reliant upon both user and situation, the meanings of words can change to suit a variety of personal or political
agendas. Humans seem intent on controlling their environment, and by labelling animals as “feral,” “stray,” or “domesticated” are able to exert power over animal bodies. In some cases, this power ends the life of an individual. In others it confers a sense of being welcomed back to hearth and home. And for some it places them in a liminal safety zone. The word “feral” represents animals who have slipped out of human control, and for some species this can mean a death sentence. The Australian government (n.d.) uses the “feral” label to denigrate unwanted (non-native) species, and feral animals living in Australia are targeted in various eradication programs. The “feral” label permits us to treat certain groups differently and feel less bad about it because the “feral” animals are not like the companion animals we know and love. For cats, being labeled as “stray” rather than “feral” means that they are at least considered re-homeable, even if the distinction is somewhat arbitrary (Crowley et al., 2020). Labelling horses as “feral,” “wild,” or “free-roaming” represents a form of anthropocentrism that values the animals relative to human convenience or aesthetic. Another example of anthropocentrism is how sonic disturbance within urban communities is less accepted than it is in rural communities, perhaps because such sounds invade our sense of control over our surroundings.

Animals that meet certain predefined standards, perhaps by being of service to or entertainment for humans, escape being designated as “feral” and instead become “wild,” allowing species such as horses and macques to freely roam wild spaces without fear of persecution. As long as these species do not become pests to the humans in their shared landscape, they are allowed to remain largely “out of control.” However, these designations exist at the whims of humankind, who may decide at any point to redefine both designation and animal.

References

Algarve Daily News. (2013, October 30). Government to control Portugal’s pets. https://algarvedailynews.com/news/353-government-to-control-portugal-s-pets.

Anderson, K. (1997). A walk on the wild side: a critical geography of domestication. Progress in Human Geography, 21(4), 463–485. https://doi.org/10.1191/030913297673999021.

Angloinfo. (2012). Constant BARKING DOG [Online forum post]. https://www.angloinfo.com/algarve/discussions/general/constant-barking-dog.

Ashurst, F., & Venn, C. (2014). Inequality, poverty, education: A political economy of school exclusion. Palgrave Macmillan.
Australian Government (2015). Threatened species strategy. http://www.environment.gov.au/system/files/resources/51b0e2d4-50ae-49b5-8317-081c6af8317/files/ts-strategy.pdf.

Australian Government (n.d.). Feral animals in Australia. https://www.environment.gov.au/biodiversity/invasive-species/feral-animals-australia.

Bonacic, C., Almuna, R., & Ibarra, J.T. (2019). Biodiversity conservation requires management of feral domestic animals. *Trends in Ecology and Evolution*, 34(8), 683–686. https://doi.org/10.1016/j.tree.2019.05.002.

Beirne, P., & South, N. (2015). *Issues in green criminology*. Routledge.

Bhattacharyya, J., Slocombe, D.S., & Murphy, S.D. (2011). The “Wild” or “Feral” distraction: Effects of cultural understandings on management controversy over free-ranging horses (*Equus ferus caballus*). *Human Ecology*, 39(5), 613–625.

Bidau, C.J. (2009). Domestication through the centuries: Darwin's ideas and Dmitry Belyaev's long-term experiment in silver foxes. *Gayana (Concepción)*, 73, 55–72. https://doi.org/10.4067/s0717-65382009000300006.

British Expats. (2010, August 28). Barking mad [Online forum post]. https://britishexpats.com/forum/portugal-89/barking-mad-683090/.

Budiansky, S. (1997). *The nature of horses: Exploring equine evolution, intelligence, and behavior*. Simon & Schuster.

Busby, D., & Rutland, C. (2019). *The horse: A natural history*. Ivy Press.

Carter, S.B. (2016). Establishing a framework to understand the regulation and control of dogs in urban environments: A case study of Melbourne, Australia. *SpringerPlus*, 5(1), 1190. https://doi.org/10.1186/s40064-016-2843-8.

Clutton-Brock, J. (1992). *Horse power: A history of the horse and the donkey in human societies*. Harvard University Press.

Conley, J., O’Barr, W.M., & Riner, R.C. (2019). *Just words: Law, language, and power* (3rd ed.). University of Chicago Press.

Commonwealth of Australia (2015). Tackling feral cats. Department of Agriculture, Water and the Environment. http://www.environment.gov.au/biodiversity/threatened/publications/factsheet-tackling-feral-cats.

Coppinger, R., & Feinstein, M. (1991). "Hark! hark! the dogs do bark ..." and bark and bark. *Smithsonian*, 21, 119.

Crowley, S.L. (2014). Camels out of place and time: The dromedary (*Camelus dromedarius*) in Australia. *Anthrozoös*, 27(2), 191–203. https://doi.org/10.2752/175303714X13903827487449.

Crowley, S.L., Cecchetti, M., & McDonald, R.A. (2020). Our wild companions: Domestic cats in the Anthropocene. *Trends in Ecology & Evolution*, 35(6), 477–483. doi:org/10.1016/j.tree.2020.01.008.
Dancygier, R., & Margalit, Y. (2020). The evolution of the immigration debate: Evidence from a new dataset of party positions over the last half-century. *Comparative Political Studies, 53*(5), 734–774.

Department of Conservation (NZ Government). (n.d.). *Feral cats.* https://www.doc.govt.nz/nature/pests-and-threats/animal-pests/feral-cats/.

Dobeić, M., Pintarič, Š., Vlahović, K., & Dovč, A. (2011). Feral pigeon (*Columba livia*) population management in Ljubljana. *Veterinarski Arhiv, 81*(2), 285–298.

Doherty, T.S., Glen, A.S., Nimmo, D.G., Ritchie, E.G., & Dickman, C.R. (2016). Invasive predators and global biodiversity loss. *Proceedings of the National Academy of Sciences, 113*(40), 11261–11265. https://doi.org/10.1073/pnas.1602480113.

Driscoll, D.A., & Watson, M.J. (2019). Science denialism and compassionate conservation: response to Wallach et al. 2018. *Conservation Biology, 22*, 777–780. DOI:10.1111/cobi.13273.

Dunlap, T.R. (1993). Australian nature, European culture: Anglo settlers in Australia. *Environmental History Review, 17*(1), 25–28. DOI:10.2307/3984889.

Dwyer, J. (2012, October 8–11). Messages and metaphors: Is it time to end the ‘war on weeds’? [Paper presentation]. Eighteenth Australasian Weeds Conference, Melbourne, Victoria, Australia.

Elliot, R. (1982) *Faking nature: The ethics of environmental restoration.* *Inquiry, 25*(1), 81–93.

Epstein, C. (2008) *The power of words in international relations: Birth of an anti-whaling discourse.* The MIT Press.

Farnworth, M.J., Campbell, J., & Adams, N.J. (2011). What’s in a name? Perceptions of stray and feral cat welfare and control in Aotearoa, New Zealand. *Journal of Applied Animal Welfare Science, 14*(1), 59–74. https://doi.org/10.1080/10888705.2011.527604.

Farnworth, M.J., Dye, N.G., & Keown, N. (2010). The legal status of cats in New Zealand: A perspective on the welfare of companion, stray, and feral domestic cats (*Felis catus*). *Journal of Applied Animal Welfare Science, 13*(2), 180–188. DOI:10.1080/1088870903584846.

Feber, R.E., Raebel, E.M., D’Cruze, N., Macdonald, D.W., & Baker, S.E. (2017). Some animals are more equal than others: Wild animal welfare in the media. *BioScience, 67*(1), 62–72. https://doi.org/10.1093/biosci/biw144.

Fielding, W.J. (2008). A note on the cause of the nuisance of barking at night on New Providence, The Bahamas. *The College of The Bahamas Research Journal, 14*, 1–3. https://doi.org/10.15362/ijbs.v14i0.98.

Fine, A.H. (2010). *Handbook on animal-assisted therapy: Theoretical foundations and guidelines for practice.* Academic Press.

Foucault, M. (2008). *The birth of biopolitics* (G. Burchell, Trans.). Palgrave Macmillan. (Original work published 1978–1979).

Foucault, M. (1984). *The Foucault reader* (P. Rabinow, Ed). Random House.
Gaunitz, C., Fages, A., Hanghøj, K., Albrechtsen, A., Khan, N., Schubert, M., Seguin-Orlando, A., Owens, I.J., Felkel, S., Bignon-Lau, O., de Barros Damgaard, P., Mittnik, A., Mohaseb, A.F., Davoudi, H., Alquraishi, S., Alfarhan, A.H., Al-Rasheid, K.A.S., Crubézy, E., Benecke, N., … Orlando, L. (2018). Ancient genomes revisit the ancestry of domestic and Przewalski’s horses. *Science, 360*(6384), 111–114. DOI: 10.1126/science.aao3297.

Gering, E., Incorvaia, D., Henriksen, R., Wright, D., & Getty, T. (2019). Maladaptation in feral and domesticated animals. *Evolutionary Applications, 12*(7), 1274–1286. https://doi.org/10.1111/eva.12784.

Gordon, J.G. (2020). A fowl politics of urban dwelling. Or, Ybor City’s republic of noise. *Journal of Urban Affairs, 44*(2), 194–220. https://doi.org/10.1080/07352166.2020.1758120.

Griffiths, H., Poulter, I., & Sibley, D. (2000). Feral cats in the city. In C. Philo, & C. Wilbert, (Eds.), *Animal spaces, beastly places: New geographies of human-animal relations* (pp. 59–72). Routledge.

Hampton, J.O., Warburton, B., & Sandø, P. (2019). Compassionate versus consequentialist conservation. *Conservation Biology, 33*, 751–759. https://doi.org/10.1111/cobi.13249.

Haraway, D. (2012). Awash in urine: DES and Premarin® in multispecies responsability. *WSQ: Women’s Studies Quarterly, 40*(1), 301–316. DOI: 10.1353/wsq.2012.0005.

Hill, K. (2021). *A right to roam? A trans-species approach to understanding cat-human relations and social discourses associated with free-roaming cat in urban environments* (working title) [Unpublished doctoral Dissertation]. University of Exeter.

Hobbs, R.J., Arico, S., Aronson, J., Baron, J.S., Bridgewater, P., Cramer, V.A., Epstein, P.R., Ewel, J.J., Klink, C.A., Lugo, A.E., Norton, D., Ojima, D., Richardson, D.M., Sanderson, E.W., Valladares, F., Vilà, M., Zamora, R., & Zobel, M. (2006). Novel ecosystems: theoretical and management aspects of the new ecological world order. *Global Ecology and Biogeography, 15*, 1–7. DOI: 10.1111/j.1466-822x.2006.00212.x.

Hobbs, R.J., Higgs, E., & Harris, J.A. (2009). Novel ecosystems: implications for conservation and restoration. *Trends in Ecology & Evolution, 24*(11), 599–605. https://doi.org/10.1016/j.tree.2009.05.012.

Hume, K. (2010). Sleep disturbance due to noise: Current issues and future research. *Noise and Health, 12*(47), 70. https://doi.org/10.4103/1463-1741.63206.

Ingold, T. (2000). From trust to domination: An alternative history of human-animal relations. In T. Ingold (Ed.), *The perception of the environment: Essays in livelihood, dwelling and skill* (pp. 61–76). Routledge.

Ireland, T., Miller Neilan, R. (2016). A spatial agent-based model of feral cats and analysis of population and nuisance controls. *Ecological Modelling, 337*, 123–136. https://doi.org/10.1016/j.ecolmodel.2016.06.014.
Jepson, J. (2008). A linguistic analysis of discourse on the killing of nonhuman animals. *Society & Animals, 16*(2), 127–148. https://doi.org/10.1163/15685308X291426.

Jégh-Czinege, N., Faragó, T., & Pongrácz, P. (2020). A bark of its own kind – the acoustics of ‘annoying’ dog barks suggests a specific attention-evoking effect for humans. *Bioacoustics, 29*(2), 210–225. https://doi.org/10.1080/09524622.2019.1576147.

Jones, O. (2004). (Un)ethical geographies of human–non-human relations. In C. Philo, & C. Wilbert, (Eds), *Animal spaces, beastly places: New geographies of human-animal relations* (pp. 281–304). Routledge.

Lei, D. (2003). The production and consumption of Chinese theatre in nineteenth-century California. *Theatre Research International, 28*(3), 289–302. https://doi.org/10.1017/S0307883303001147.

Lentini, J.A., & Knox, M.S. (2009). A qualitative and quantitative review of equine facilitated psychotherapy (EFP) with children and adolescents. *The Open Complementary Medicine Journal, 1*, 51–57.

Lentini, J.A., & Knox, M.S. (2015). Equine-facilitated psychotherapy with children and adolescents: An update and literature review. *Journal of Creativity in Mental Health, 10*(3), 278–305. https://doi.org/10.1080/15401383.2015.1023916.

Linklater, W.L. (2000). Adaptive explanation in socio-ecology: Lessons from the Equidae. *Biological Reviews, 75*(1), 1–20. https://doi.org/10.1017/S0006323199005411.

Linklater, W.L., Stafford, K.J., Minot, E.O., & Cameron, E.Z. (2001). Researching feral horse ecology and behavior: Turning political debate into opportunity. *Wildlife Society Bulletin, 30*, 644–650. DOI: 10.2307/3784529.

Lugo, A.E. (2000). Effects and outcomes of Caribbean hurricanes in a climate change scenario. *Science of The Total Environment, 262*(3), 243–251. https://doi.org/10.1016/S0048-9697(00)00526-X.

Lynn, W.S., Santiago-Ávila, F., Lindenmayer, J., Hadidian, J., Wallach, A., & King, B.J. (2019). A moral panic over cats. *Conservation Biology, 33*(4), 769–776. https://doi.org/10.1111/cobi.13346.

Marra, P.P., & Santella, C. (2016). *Cat wars: The devastating consequences of a cuddly killer*. Princeton University Press.

McCune, S. (1995). The impact of paternity and early socialisation on the development of cat behaviour to people and novel objects. *Applied Animal Behaviour Science, 45*, 199–124. DOI: 10.1111/eva.12784.

Miller, J.R., & Bestelmeyer, B.T. (2016). What’s wrong with novel ecosystems, really? *Restoration Ecology, 24*(5), 577–582. DOI: 10.1111/rec.12378.

Mitchell, C. (2013). The Bard’s bird; or, the slings and arrows of avicultural hegemony: A tragicomedy in five acts. In K. Nagy & P.D. Johnson (Eds.), *Trash animals: How we live with nature’s filthy, feral, invasive, and unwanted species* (pp. 171–181). University of Minnesota Press.
Mol, A. (2014). Language trails: ‘Lekker’ and its pleasures. *Theory, Culture & Society, 31*(2–3), 93–119. https://doi.org/10.1177%2F0263276413499190.

Montague, C.L., Colwell, S.V., Percival, H.F., & Gottgens, J.F. (1994). *Issues and options related to management of Silver Springs rhesus macaques* (Technical Report No. 49). Florida Cooperative Fish and Wildlife Resource Unit, University of Florida. https://aquadocs.org/bitstream/handle/1834/19106/OCRMontague_C.1994.pdf?sequence=1&isAllowed=y.

Monbiot, G. (2014). *Feral: Rewilding the land, the sea and human life.* University of Chicago Press.

Murphy, P.D., Norris, M., Scholtmeijer, M., & Copeland, M.W. (1998). Nonhuman animals: A review essay. *Society & Animals, 6*(1), 87–100. https://doi.org/10.1163/156853098X00078.

Nagy, K., Johnson, P.D., & Malamud, R. (2013). *Trash animals: How we live with nature’s filthy, feral, invasive, and unwanted species.* University of Minnesota Press.

Neville, P.F. (1989). Feral cats: Management of urban populations and pest problems by neutering. In R.J. Putman (Ed.), *Mammals as pests* (pp. 261–267). Chapman & Hall.

Olsen, P. (1996). *Australia’s pest animals: New solutions to old problems.* Simon & Schuster.

Owens, A. (2017). *Wild horse country: The history, myth, and future of the Mustang, America’s horse.* wW Norton & Co Inc.

Oxford English Dictionary. (2020). Noise. https://www.oed.com/view/Entry/127655?rskey=ocwD9I&result=1#eid.

PETA (2019). *PETA statement: War on pythons.* https://www.peta.org/media/news-releases/peta-statement-war-on-pythons/.

Petersen, J.L., Mickelson, J.R., Cothran, E.G., Andersson, L.S., Axelsson, J., Bailey, E., Bannasch, D., Binns, M.M., Borges, A.S., Brama, P., da Cámara Machado, A., Distl, O., Felicetti, M., Fox-Clipsham, L., Graves, K.T., Guérin, G., Haase, B., Hasegawa, T., Hemmann, K., ... McCue, M.E. (2013). Genetic diversity in the modern horse illustrated from genome-wide SNP data. *PLoS ONE, 8*(1), p.e54997. https://doi.org/10.1371/journal.pone.0054997.

Péter, P., Éva, S., Anna, K., András, P., & Ádám, M. (2014). More than noise? – Field investigations of intraspecific acoustic communication in dogs (*Canis familiaris*). *Applied Animal Behaviour Science, 159*, 62–68. https://doi.org/10.1016/j.applanim.2014.08.003.

Pongrácz, P., Czinege, N., Haynes, T.M.P., Tokunaru, R.S., Miklósí, Á., Faragó, T. (2016). The communicative relevance of auditory nuisance: Barks that are connected to negative inner states in dogs can predict annoyance level in humans. *Interaction Studies, 17*(1), 26–47. https://doi.org/10.1075/is.17.1.02pon.

Price, E.O. (2003). *Animal domestication and behavior.* Oxford University Press.
Prieto, G. (2020). *Myth and reality in the US immigration debate: The myths and realities of immigration in the United States*. Routledge.

Probyn, E. (2016). *Eating the ocean*. Duke University Press.

Quetchenbach, B. (2013). Canadas: From conservation success to Flying Carp. In K. Nagy & P.D. Johnson (Eds.), *Trash animals: How we live with nature’s filthy, feral, invasive, and unwanted species* (pp. 153–170). University of Minnesota Press.

Ransom, J.L., & Kaczensky, P. (2016). *Wild equids: Ecology, management, and conservation*. Johns Hopkins University Press.

Riley, E.P., & Wade, T.W. (2016). Adapting to Florida’s riverine woodlands: The population status and feeding ecology of the Silver River rhesus macaques and their interface with humans. *Primates*, 57, 195–210. https://doi.org/10.1007/s10329-016-0517-3.

Righetti, J. (2005). *Barking problems solved: Examples of successful management of barking problems in the urban environment*. Proceedings of the National Urban Animal Management Conference, 25–26. https://aiam.org.au/resources/Documents/2005%20UAM/PUB_Pron05_Righetti_Barkingproblems.pdf.

Rose, B. (1995). Land management issues: Attitudes and perceptions amongst aboriginal people of Central Australia. In *Report for the cross cultural land management project*. Central Land Council.

Rose, D. (2005). An indigenous philosophical ecology: Situating the human. *Australian Journal of Anthropology*, 16(3), 294–305. https://doi.org/10.1111/j.1835-9310.2005.tb00312.x.

Russell, N. (2007). The domestication of anthropology. In R. Cassidy, & M. Mullin (Eds.), *Where the wild things are now: Domestication reconsidered* (pp. 27–48). Bloomsbury Academic.

San José Animal Care Center. (n.d.). *Report a noisy animal | City of San Jose*. https://www.sanjoseca.gov/your-government/departments/animal-care-services/request-for-service/report-a-noisy-animal.

Schafer, R.M. (1977). *The soundscape: Our sonic environment and the tuning of the world*. Destiny Books.

Slater, M.R. (2002). *Community approaches to feral cats*. Human Society Press.

Stanescu, V., & Twine, R. (2012). Post-animal studies: The future(s) of critical animal studies. *Journal for Critical Animal Studies*, 10(4), 4–19.

Stewart, K., & Cole, M. (2015). The creation of a killer species cultural rupture in representations of ‘urban foxes’ in UK newspapers. In N. Almiron, M. Cole, & C. Packwood Freeman (Eds.), *Critical media and animal studies: Communication for nonhuman animal advocacy* (pp. 124–137). Routledge.

Sutton, Z. & Taylor, N. (2019). Managing the borders: Static/dynamic nature and the ‘management’ of ‘problem’ species. *Parallax*, 25(4), 379–394. DOI: 10.1080/13534645.2020.1731006.
Szydlowski, M. (2021). *Framing conservation, colonialism and care: Captive endangered Asian elephants (Elephas maximus) in Nepal* [Doctoral dissertation, University of Exeter]. EthOS. https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.841976.

Van Houtan, K.S. (2006). Conservation as virtue: A scientific and social process for conservation ethics. *Conservation Biology, 20*(5), 1367–1372. https://doi.org/10.1111/j.1523-1739.2006.00447.x.

Wallach, A., Batavia, C., Bekoff, M., Alexander, S., Baker, L., Ben-Ami, D., Boronyak, L., Cardilin, A.P.A., Carmel, Y., Celemajer, D., Coghlan, S., Dahdal, Y., Gomez, J.J., Kaplan, G., Keynan, O., Khalilieh, A., Kopchina, H., Lynn, W.S., Narayanan, Y., & Ramp, D. (2020). Recognizing animal personhood in compassionate conservation. *Conservation Biology, 34*(5), 1097–1106. https://doi.org/10.1111/cobi.13494.

United States Geological Survey [USGS]. (2020). *How have invasive pythons impacted Florida ecosystems?* USGS.gov. https://www.usgs.gov/faqs/how-have-invasive-pythons-impacted-florida-ecosystems?qt-news_science_products=0#qt-news_science_products.

Urban Dictionary (2019). *Feral.* https://www.urbandictionary.com/define.php?term=Feral.

Wallach, A., & Ramp, D. (2015). *Let's give feral cats their citizenship.* The Conversation. https://theconversation.com/lets-give-feral-cats-their-citizenship-45165.

Warrick, R.A. (1993). *Climate and sea level change: Observations, projections and implications.* Cambridge University Press.

Warwick C., Arena P., Lindley S., Jessop, M., & Catrina Steedman, C. (2013). Assessing reptile welfare using behavioural criteria. *In Practice, 35*, 123–131. http://dx.doi.org/10.1136/inp.f1197.

Watson, G.P.L. (2013). See gull: Cultural blind spots and the disappearance of the ring-billed gull in Toronto. In K. Nagy & P.D. Johnson (Eds.), *Trash animals: How we live with nature's filthy, feral, invasive, and unwanted species* (pp. 31–38). University of Minnesota Press.

West, P. (1993). *From “The Tent of Orange Mist.”* Conjunctions. https://www.conjunctions.com/print/article/paul-west-c20.

White, S. (2013). British colonialism, Australian nationalism and the law: Hierarchies of wild animal protection. *Monash University Law Review, 39*(2), 452–472.

Wilson, A., Wilson, D., & Robin, L. (2018). The ought-ecology of ferals: An emerging dialogue in invasion biology and animal studies. *Australian Zoologist, 39*(1), 85–102. https://doi.org/10.7882/AZ.2016.027.

Wisely, S.M., Sayler, K.A., Anderson, C.J., Boyce, C.L., Klegarth, A.R., & Johnson, S.A. (2018). Macacine Herpesvirus 1 antibody prevalence and DNA shedding among invasive Rhesus Macaques, Silver Springs State Park, Florida, USA. *Emerging Infectious Diseases, 24*(2), 345–351. DOI: 10.3201/eid2402.171439.
Woinarski, J.C.Z., Burbidge, A.A., & Harrison, P.L. (2015). Ongoing unraveling of a continental fauna: Decline and extinction of Australian mammals since European settlement. *Proceedings of the National Academy of Sciences of the United States of America, 112*, 4531–4540. https://doi.org/10.1073/pnas.1417301112.

Wolch, J.R. (1998). Zoopolis. In J.R. Wolch & J. Emel (Eds.), *Animal geographies: Place, politics, and identity in the nature-culture borderlands* (pp. 119–138). Verso.

Wolfe, L.D., & Peters, E.H. (1987). History of the freeranging rhesus monkeys (*Macaca mulatta*) of Silver Springs. *Florida Scientist, 50*(4), 234–245.

Yin, S., & McCowan, B. (2004). Barking in domestic dogs: Context specificity and individual identification. *Animal Behaviour, 68*(2), 343–355. https://doi.org/10.1016/j.anbehav.2003.07.016.

Zeder, M. (2015). Core questions in domestication research. *Proceedings of the National Academy of Sciences, 112*(11), 3191–3198. https://doi.org/10.1073/pnas.1501711112.