

Ecological restoration, cultural preferences and the negotiation of ‘nativeness’ in Australia

David Trigger ^{a,*}, Jane Mulcock ^b, Andrea Gaynor ^c, Yann Toussaint ^{b,d}

^a Anthropology, School of Social Science, The University of Queensland, St Lucia, Brisbane, Qld 4072, Australia

^b Department of Anthropology and Sociology, The University of Western Australia, 35 Stirling Highway, Crawley, Perth, WA 6009, Australia

^c Department of History, The University of Western Australia, 35 Stirling Highway, Crawley, Perth, WA 6009, Australia

^d Department of Earth and Geographical Sciences, The University of Western Australia, 35 Stirling Highway, Crawley, Perth, WA 6009, Australia

Received 14 November 2006; received in revised form 26 April 2007

Abstract

The paper addresses cultural assumptions about ‘nativeness’ and ‘belonging’ to place as they are implicated in notions of ‘ecological restoration’. Given the centrality of complex notions of ‘indigeneity’ to the issue of what ecological ‘restoration’ means in Australia, this is a rich area for cultural and historical analysis. Case materials illustrate the negotiated and ambiguous nature of Australian ideas about what ‘belongs’ ecologically and culturally across the broad continent of this relatively young post-Settler nation. We seek to foreground these issues through consideration of what ‘restoring’ nature might mean in the context of debates about native plants, the re-introduction of an iconic species of ground dwelling bird, the removal of cane toads that are demonised as highly ‘alien’, and the multiple ways in which the dingo is regarded ambiguously as both native and a ‘pest’ that needs to be controlled and culled. By showing how ‘restoration’ can be understood and mobilised in a variety of ways – in terms of the ‘re-naturing’, ‘re-valuing’ and/or ‘repatriating’ of indigenous species, as well as impassioned rejection of ‘exotics’ – we emphasise the importance of social science for building a well-grounded sense of how environmental management priorities and approaches are informed by a wider set of cultural assumptions.

© 2007 Elsevier Ltd. All rights reserved.

Keywords: Ecological restoration; Nativeness; Nature; Culture; History; Australia

As in many countries, Australians are increasingly debating the ecological and cultural place of ‘native’ and ‘exotic’ species of plants and animals. At issue for biological scientists and land managers is the assertion, in both academic and policy literature, that ‘invasive’ species pose a significant threat to local biodiversity.¹ While biologists continue to debate the alleged ecologically informed justifications for this position (e.g., Brown and Sax, 2004, 2005; Cassey et al., 2005), social science approaches offer ways to reveal underlying cultural assumptions about ‘nativeness’

and ‘belonging’ to place that inform popular perspectives on restoration projects, and intersect with such scientific discourses at specific junctures.

Building on what is now a rich literature addressing the complexities of human relationships with particular plant and animal species (e.g., Rival, 1998; Ellen and Fukui, 1996; Knight, 2000; Morris, 1998, 2000; Archetti, 1997; Shanklin, 1985; Mullin, 1999), our work probes for links between people’s personal and shared value systems and their dispositions towards embracing or rejecting particular forms of nature. We are concerned to interrogate diverse and changing values and knowledge that inform the ecological interventions that have ‘restoration’ as either an explicit or implicit aim. While recognising that the concept of ecological restoration can encompass a diverse set of beliefs and practices, we focus here on prominent issues

* Corresponding author.

E-mail address: d.trigger@uq.edu.au (D. Trigger).

¹ See, for example, Global Invasive Species Programme (<http://www.gisp.org/>). We note, however, that not all ‘exotic’ species are necessarily ‘invasive’, and neither are all invasive species ‘exotic’ (Rothham, 2005a, p. 52).

as they are most often understood in Australia, that is, within the broad area of nature conservation.

In societies with relatively recent settler histories, the debate about ecological belonging often carries symbolic significance that appears to overlap with assumptions about where certain categories of person (indigene – settler – migrant – refugee) sit on a moral hierarchy of cultural belonging.² The desire to ‘retrofit’ environments ‘by restoring and reconstructing indigenous ecosystems’ (Clarkson and McQueen, 2004, p. 1) may therefore entail assumptions about societal identities, colonial histories, Aboriginal (or ‘indigenous’) cultural recuperation, and the negotiation of diverse emplaced socio-cultural identities in a multicultural nation. In this context the idea of ‘nativeness’ has assumed a heightened symbolic significance well beyond its use in environmental discourses about ‘natural’ ecological systems. Amongst settler-descendant Australians there is evidence of a growing sense of belonging to place connected to assertions of ‘native’ identity (e.g., Greer, 2003; Read, 1994, 2000; Probyn, 2002; Lattas, 1992; Miller, 2003; Mulcock, 2006).³ Although we are not the first to examine how such claims can coincide with preferences for native flora and fauna (see e.g., Hage, 1998; Morton and Smith, 1999; Franklin, 2006), we seek to move beyond any blunt categorisation of certain ecological interventions as ‘eco-nationalist’, in addressing aspects of a complex politics of nativeness as this issue is negotiated through relations with the Australian environment.

The diversity of positions on the belonging of introduced flora and fauna within Australian Aboriginal communities is significant in this context. Though some suggest that few Aboriginal people will ‘concede that their fellow non-Aboriginal Australians born here are also indigenous’ (Rigsby, 2000), or that introduced plants and animals can truly belong, there is considerable evidence that this is an open question. Many Aboriginal responses to ‘exotic’ plants, animals and cultural forms seek to embrace them (Franklin, 2006; Trigger, 2004). At the least, this is a complex matter rather than any simplistic divide in traditional Aboriginal thought between natives and invaders, just as is the diversity of non-Aboriginal thinking about the constituents of identity in a globalising world. In some areas of Central Australia, cats for example, are hunted for food and celebrated as spiritually significant with a dreaming route similar to those of native species (Cane, 2002, p.

84, 110, 211). The introduced cat is also painted with traditional Yolngu designs in Arnhem Land (Hutcherson, 1998, p. 33). Similarly, in the Gulf Country of northern Australia, the introduced water buffalo (*Bubalus bubalis*) has been historically celebrated with dances and songs mimicking the animal’s features just as with native species (Trigger, 2004), a practice reported also for other regions (Sansom, 2001, p. 30, fn. 10; Frawley, 2003, p. 69, fn. 127, 128).

In light of such Aboriginal creative responses to introduced creatures how should Australians define what (and who) ‘belongs’ in the landscapes of their society? If ‘indigenous Australians’ make intellectual room for non-native species, recognising their capacity to achieve a place in the environment and the nation, what are the implications for notions of ‘ecological restoration’? At the least, this complicates any broad society-wide assumptions that symbolically link ‘indigenous people’ with an exclusively ‘native’ ecology, and any related view that simplistically equates things ‘native’ with what is exclusively ‘natural’. The implications of these issues, in our view, are that (alongside the findings produced by ecological science) we need to pay serious attention to culture and history when seeking to understand the complexities of human relations with nature.

We draw on data collected during several years of ethnographic fieldwork in urban and rural Western Australia, along with analysis of relevant written documents, both contemporary and historical. As co-authors, our research backgrounds encompass environmental history, geography and cultural anthropology, the approach thus combining theoretical concerns with social constructionism, the significance of environment for the development of personal and cultural identities, and insights from the sociology of science.

The paper considers the issue of ecological restoration through three frameworks of cultural understanding: (1) restoration as ‘re-naturing’, in the sense of ‘enhancing’ a particular biophysical environment, by re-introducing widely recognised ‘native’ (and thus ‘natural’) species – the general category of ‘indigenous plants’ and a particular species of bird, the malleefowl, provide case material; (2) restoration in the sense of attempting to return an environment to an earlier state by removing exotic species that have been introduced through human intervention – the invasive cane toad serving as an example; and, at a more abstract level, (3) the conceptual restoration of an environment through a process of reinterpretation resulting in the intellectual and emotional (rather than physical) ‘repatriation’ or ‘claiming’ of species with ambiguous belonging, species whose local ‘nativeness’ is somehow unclear or contested – the Australian dingo providing an illustrative case. The paper thus addresses the relation between notions of ecological restoration and the negotiation of cultural identities (‘indigenous’ and otherwise) in Australian society. In doing so, it foregrounds the ways in which the concept of ecological restoration is replete with culturally loaded values.

² These issues are also significant in nations with large immigrant populations such as Britain. During an interview with Mulcock in 2005, an employee of the Ulster Wildlife Trust reflected on the public sensitivity in parts of the UK to environmental campaigns supporting the ‘removal of “alien” or “non-native” species’. In communities with high numbers of migrant residents, conservationists have had to adopt more neutral terminology to talk about the eradication of invasive flora and fauna, in order to avoid causing offense resulting from perceived conflation of attitudes to ‘introduced’ non-human species and human migrants.

³ For evidence of the search for ‘native’ identities among non-Aboriginal people in other domains of Australian popular culture, see St. John (2001), Tacey (1995), Plumwood (2000) and Morton (1996).

1. Ecological restoration in Australian historical context

If ecological restoration is understood to include efforts to restore the land to a previous level of functionality, then in Australia it may be traced back to the late 18th century (Bonyhady, 2000). However, restoration as a more self-conscious, scientifically informed set of practices emerged in the Australian context over the last four decades of the 20th century.

From the 1960s, the rise of environmentalism together with ecological science led to wider awareness of, and concern over, the extent and potential consequences of ecological damage. While environmentalists' efforts were primarily directed towards protection of 'natural' areas from exploitation by mining and logging, the potential for reversing the ecological damage already caused by exploitative activities also gained increasing attention. The rehabilitation of sites disturbed by mining activities was an early focus of scientifically informed restoration work in this era. Initially, the primary aim was simply to re-establish vegetation, but over time the goal moved towards restoration of pre-existing ecosystems. Thus the company Alcoa commenced bauxite mining in the jarrah (*Eucalyptus marginata*) forest of south-western Australia in 1963, and began rehabilitating mined land in 1966. At first this involved planting eucalypts from eastern Australia, with a view to achieving the restoration of functional vegetation cover. Three decades later, their aim was to 're-establish a jarrah forest ecosystem', with restoration involving direct seeding of local eucalypts, and planting of other local species (Nichols and Nichols, 2003).⁴

Projects involving active management of various species for conservation purposes increased in the 1970s, and by the 1980s, conservation projects frequently aimed not only to 'preserve' environments, but to 'restore' them to a state that was more ecologically functional (particularly as wildlife habitat) and undegraded or even 'natural', the latter implying a notional 'prior' state. That is to say, in Australia, the aim of many restoration efforts has shifted from a focus on landscape functionality to one in which understandings of what is 'natural' or 'native' (and thus what 'belongs' in ecosystems) are more significant. This historical shift is indicative of a broader one in restoration means, and (more especially) aims, that gives rise to the questions at the heart of this paper.

However, efforts to restore past ecologies have been problematised by growing acknowledgement of the length (and possible environmental impact) of pre-colonial Aboriginal occupation of the continent. There has been vigorous debate in Australia about the impacts of Aboriginal activities, including Tim Flannery's contentious claim that those in occupation of the continent prior to European arrival were responsible for the extinction, around 15,000 BP, of the Australian megafauna (Flannery, 1994). Consid-

erable attention has been given to Aboriginal use of fire, and the role it played in shaping the landscape that Europeans encountered from the 17th century. Indeed, the environmental impact of Aboriginal landscape burning has been described as 'one of the most complex and contentious issues in Australian ecology' (Bowman, 1998, p. 385). Archaeologist Rhys Jones's (1969) catchy phrase 'fire-stick farming' reflected his view that Aboriginal burning played a significant role in shaping the landscape, giving rise to widespread debate over the extent and nature of this pre-European usage of fire. Much of the discussion has centred around interpretation of historical evidence, including the journals of explorers and settlers (Benson and Redpath, 1997, 1998; Flannery, 1998). Historians such as Rolls (1981, p. 1) have even argued that in some areas, due to the cessation of Aboriginal burning and decline in small marsupials, trees now grow densely where before they were sparse.

Acknowledgement of Aboriginal agency in changing the environment over thousands of years has both destabilised notions of appropriate 'baselines' and led to interest in surviving indigenous knowledge of traditional land management practices (Marsden-Smedley and Kirkpatrick, 2000; Horstman and Wightman, 2001). We have seen previously commonplace notions of once 'pristine' environments and 'wilderness' (as 'natural' places devoid of the marks of culture) contested in Australia by both indigenous and other scholars (Langton, 1996; Rose, 1996). It is in this context of contesting assumptions about the meaning of 'ecological restoration' that we examine several illustrative cases.

2. Restoration as 're-naturing' and revaluing

The idea of 're-naturing' might describe such diverse processes as replacing a building site with a public park, the 're-creation' of one kind of biophysical space based on the erasure of another, or the altering of a 'natural' space to incorporate or give priority to particular species (e.g., replacing bush with lawn and a rose garden, as in the case of so-called 'nature' strips in cities and towns). Our interest here is in the conflation of the concepts of 'naturalness' and 'nativeness'. In this sense we take 're-naturing' to refer specifically to the revaluing and/or re-introduction of locally native species (understood as 'natural' species). Within this framework, to 're-nativise' is also to 're-naturalise'; to return native species to a particular location is also to 'return' that location to a more 'natural' state, to 're-nature' it. In many instances this kind of 're-naturing' also requires a process of revaluing.

There is a long history in Australia of appreciation of the aesthetic and functional characteristics of native plants (and animals), from the delight of 19th century wildflower enthusiasts and bird lovers, to the pragmatic choices by urban bureaucrats of native trees for street and parkland planting (Robin, 2001; Rolls, 2002; Holmes et al., 2004; Gooding, 1991; Bonyhady, 2000; Aitken, 2004; Aitken

⁴ See also: Alcoa, 'World Class Rehabilitation', http://www.alcoa.com/australia/en/info_page/Mine_rehab.asp.

and Looker, 2002). However, many native species also have a long history of being ignored, misunderstood and even disliked in Australian society (Bligh, 1973; Boyd, 1963; Arthur, 2003; Archer and Beale, 2004; Flannery, 1994; Seddon, 2005), and this is particularly evident in dominant choices of garden plants and styles.

The local plants movement therefore constitutes a good example of the ways in which certain native species have been culturally rehabilitated or revalued, at least partly through discourses associated with ecological restoration. This gardening movement is strongly grounded in ecologically informed ideas about the value of restoring native flora (and fauna), a process that has also been promoted as a means of enhancing cultural as well as environmental health. That is, there have been attempts to rehabilitate the image of native Australian plants in ways that link them, not only to what is ‘natural’, but also to cultural heritage (Lullfitz, n.d.; Urquhart, 1999). A significant hurdle for the relatively small group of individuals committed to the use of local plant species in urban gardens and parks is the need to reshape the wider community’s attitudes towards such plants in a cultural context where lawn grasses and other introduced species are very popular. In this sense there is a need to re-evaluate the qualities of ‘natives’.

Australian plants have been offered for sale by commercial nurseries since at least the 1850s. Interest in these species emerged more clearly – albeit among a small minority – in the 1890s⁵; a period that also saw the rise of an incipient nationalism celebrating Australia’s bush heritage. By the 1970s we saw a resurgence of interest in Australian flora as garden plants, though enthusiasm was generally still limited to a relatively narrow range of showy and adaptable species, drawn from across the continent. Such sentiments have subsequently burgeoned into discourses that enthusiastically celebrate the importance of local native plants for successful ecological restoration. Typically the connection between local natives and ‘naturalness’ is made very explicit, with terms such as ‘natural conditions’, ‘natural regeneration’, ‘harmony with the natural environment’, and ‘natural character’ used repeatedly. Particularly among enthusiasts, the cultural significance of local native plants is stressed:

Local plants should mean more to us than species from elsewhere, whose habitat we may seldom or never see. If we have a sense of home, of belonging in our locality, we should love especially the plants that belong here too. A garden of local plants identifies our home as not just a house in a sea of suburbs but a place on the natural earth. Likewise, by establishing local plants in many public parks and gardens we could help Perth to be not just another city, but a

unique place with its own natural character. (Powell and Emberson, 1996, p. 2).⁶

And again:

Tradition teaches us to dominate and control the garden ... to keep ... tidying up ... The traditional approach is *horticultural*: the gardener has a mental picture of how the plants should look, and tries to make them conform to it. Our approach, by contrast, is *natural*: we provide natural conditions (as nearly as possible) for natural plants, and then are free to watch their ways of life (Powell and Emberson, 1996, p. 3).

Magazine articles about ‘natural bush gardens’ continue to appear, with links often made to national identity. In 2003 a ‘Special Collector’s Edition’ of a popular Australian gardening magazine promoted ‘going native’ as a way of achieving a ‘truly Australian style’. The authors suggest that ‘[t]he use of native plants and materials shows a great sense of belonging – an acceptance and celebration of something uniquely Australian’ (Anonymous, 2003, p. 27). Some environmental scientists also promote the links between native species, naturalness and cultural identity; in these discourses, a restoration (or new acquisition) of *knowledge* about native species and their roles in the natural environment is perceived as necessary for a real sense of belonging to place in Australia. Mike Archer & Bob Beale write in their book, *Going Native: Living in the Australian Environment* (2004), that Australians need to ‘think ourselves into the country’, to ‘go native’, to properly value Aboriginal knowledge (p. 338–339), to ‘regain a sense of connection to the natural world’ (p. 307). Similarly, Seddon (2005, p. xv) argues that ‘[a]wareness of [indigenous] flora and its history can help us all to become better Australians’; furthermore, he suggests that there is ‘an aesthetic bonus’: ‘Plants that look comfortably at home in our natural conditions ... look better than most of the aliens an imported culture has taught us to prize.’ (p. 239) Indirectly, these exhortations to embrace native species provide a response to the concerns articulated by other well-known Australian scientists Tim Flannery (1994, 2002)⁷ and Tim Low (1999),⁸ both of whom have written about the deeply

⁶ Robert Powell and Jane Emberson have been leaders of the ‘local plant movement’ in Western Australia. They and their supporters argue that a species is only really ‘natural’ if it is locally native to a particular region, soil type and ecological community. Within this framework an ‘Australian native plant’ endemic to far north Queensland would be not be considered ‘natural’ anywhere else in Australia.

⁷ Tim Flannery observed in his 2002 Australia Day Address: ‘[n]othing seems to rouse the passions of some Australians so much as disparaging roses, lawns, plane trees and the like.’ Flannery proceeded to comment that, ‘if gardens are a kind of window on the mind, I see in our public spaces a passion for the European environment that indicates we are still, at heart, uncomfortable in our own land’.

⁸ In his second book, *The New Nature* (2002), Low acknowledges the complexities of hybrid ecosystems by noting that they can accommodate both native and introduced species.

⁵ For example, the first extensive guide to cultivation of Australian plants as garden ornamentals was published by H.A. James in 1892 (Aitken, 2004).

ingrained (and, in their views, environmentally unsustainable) preferences for non-native flora and fauna in Australian society.

While this view is clearly contested, among adherents it is hardly confined to the domain of flora. To illustrate, our brief faunal example is the malleefowl (*Leipoa ocellata*), a ground dwelling bird belonging to the Megapode family of mound-builders. Once populous within the southern region of Western Australia, it is evident from interviews with contemporary residents that (as with ‘native’ plants) attitudes have changed considerably. Many local people aged in their forties and fifties in 2003 recalled eating the birds relatively recently as children, at a time when land was still being cleared for farming. However, by 1992 a group of local farmers set out to protect the malleefowl, for both environmental and cultural reasons. It is now suggested that the bird is an appropriate icon or flagship species for semi-arid and extensively cleared farming country; a charismatic native animal species has thereby become a symbolic focus for a widespread desire to restore regional ecosystems.

In keeping with the preservation group’s emphasis on restoration, some of its activities have included the establishment of habitat corridors; there has been fencing and replanting (with locally native species) of areas that connect known malleefowl breeding sites or between a known site and other suitable habitat. Farmers (and like-minded others) thus consciously identify with a stewardship role in managing the landscape, using malleefowl as a vehicle for framing both their practical preservation work and the symbolic significance of these efforts in restoring native bushland. To promote the preservation of the malleefowl emphasises the value of ‘re-naturing’ the region in the sense of returning it to a ‘natural’ ecological balance.

3. Restoration as removal

As well as emphasising the need to re-nature/re-naturalize landscapes by re-introducing or revitalizing populations of local native species, Australian discourses and practices of ecological restoration encompass the necessity to remove from the landscape that which becomes understood as ‘unnatural’. Exotic species, especially those that are considered ‘invasive’, must be eliminated in order to create or maintain space for the ‘natural’ natives. These matters are taken up internationally by ‘invasion biologists’ who conduct research on the impacts of introduced species on local biodiversity, a matter that Rotherham (2005a, p. 1) describes as ‘one of the most important nature conservation and environmental issues of the 21st century’. Australians, as residents of an island continent whose ‘natural’ physical limits are consistent with its national political boundaries (with some island exceptions, including Tasmania), tend to have a high level of awareness about the ‘threat’, if not the actual impact, of ‘exotic’ species on the indigenous biota.

One of the country’s most notorious invasive vertebrates is the giant American toad (*Bufo marinus*), now commonly known in Australia as the cane toad. Cane toads have gradually made their way westwards across the northern part of the continent from the State of Queensland, where they were first released, to the Northern Territory. The animal was introduced to Queensland in 1935 as a biological control agent for two species of indigenous beetle which were then ravaging sugar cane crops (Lewis, 1989). The toad’s imminent arrival in Western Australia has stirred up a lot of anxiety and quite a bit of action as a number of Western Australians campaign to ‘Stop the Toad’ from crossing the State border. We are interested in how the Cane Toad is ‘de-naturalised’ in these restoration discourses as part of attempts to garner widespread community support for its *removal* from the ecosystems it has ‘invaded’ or is threatening to invade.

The rhetoric and imagery used in the campaign against the cane toad is powerful and uncompromising. A public symposium, held in the city of Perth in August 2005, serves as illustration. The painted image of a monster toad was part of a large banner displayed (see Fig. 1). The point was made, with considerable passion, that the animals had been located only a few hundred kilometres east of the Western Australia border and would probably cross over sometime in the subsequent 18 months. The urgency



Fig. 1. Banner displayed at ‘Stop the Toad’ symposium, August 2005.

of the situation has been recognised and several million dollars pledged to the cause by government. With the help of media coverage and fighting rhetoric, the race to ‘stop the toad’ has captured the imaginations of many citizens in Western Australia.

Speakers at the symposium repeatedly used military metaphors to describe the toads and the management strategies needed to control them. One herpetologist described ‘a perfectly happy animal in its native land’, but then proceeded to talk about the toad’s presence in Australia in terms of potential threats presented by ‘stowaways’, ‘hitchhikers’ and ‘renegade populations’. He also referred to toad stories from the ‘invasion front’, and talked about how it was important to ‘catch them on the high ground’ – a phrase evoking battle strategy. A government official discussed a mirror system that his officers use to check for toads attached to the bottom of cars crossing the border, mentioning that this very same procedure was used in war zones to look for explosives. This entanglement of military metaphors and human dealings with other species is reminiscent of the long history of connections between war on people and war on insect pests (Russell, 1996; Gaynor, 2006), though the cane toad is perceived as a threat to biodiversity, rather than food crops.

Another speaker warned that the ‘pristine wilderness’ in the north of Western Australia ‘will be inundated [by cane toads] unless we stop them at the borders’, a turn of phrase familiar from other fearful discourses about the potential movement of ‘alien’ human populations into Australian territory.⁹ A representative from the ‘Stop the Toad’ action group spoke passionately about the need to make ‘a preemptive strike against the toad outside of our borders’ and to encourage ‘community surveillance’ to prevent the spread of this ‘immediate and irreversible threat’ to the Western Australian landscape. In concluding the symposium, the final speaker summed up the day’s discussions with the famous quote: ‘ask not what your country can do for you, but what you can do for your country’.¹⁰ He followed this up by stating that: ‘if we can spend all this money hunting down [the terrorist organisation] al Qaeda, we can spend a bit hunting down a few cane toads ... maybe we could even send the SAS up there to take them out’.¹¹

In such public discussion, the toads are consistently represented as ‘the enemy’, dirty, ugly, greedy and sexually voracious. They are described as repulsive ‘infestations’ that detract from the pleasure of experiencing the ‘natural’ environment. The only good cane toads in this context are

either dead, in captivity – or in their native habitat well away from Australia. The primary ambiguity in this discourse of moral panic is the question of how best to kill the animal. Some of the suggestions and alternatives would never be tolerated in relation to native or domesticated animal species, such as bludgeoning them with cricket bats or golf clubs, as publicly recommended by a Member of Parliament in the Northern Territory (Anonymous, 2005, p. 28). Toads can also be deposited in ‘Toad Detention Centres’ from whence they are collected and ‘humanely’ dispatched with the aid of carbon dioxide (Wilson, 2006, p. 32).

Nevertheless, indicative of the often contested meanings given to nature, not everyone is disgusted by toads. There are numerous accounts of people keeping them as pets – the Australian Museum website even includes instructions on how to care for pet toads (with a note that it is illegal to keep them in many places).¹² In Queensland, where people have lived with them for some 70 years, the animals can be described as ‘mates’ or ‘friends’ (Lewis, 1989, p. 57), or in another reported case, as ‘a magnificent animal if you’ll just take the care to watch ‘em and see how they act under different circumstances’ (p. 56). A letter in the national newspaper comments: ‘I’d like to put in a good word for persecuted cane toads: my dear old Mum, who’s now deceased, kept a couple of dinner-plate sized ones for many years among the ferns that grew under the back stairs of her central Queensland house’ (Wilson, 2005, p. 18). The writer goes on to explain how the toads helped to keep the insect pests at bay by coming out every night and gorging themselves. And a series of three children’s books written by Morris Gleitzman (*Toad Rage*, 1999; *Toad Heaven*, 2001; *Toad Away*, 2003) also presents very sympathetic representations of cane toads, as the highly sensitive, family-oriented, and constantly persecuted, heroes of tales that involve noble efforts to make peace with humans and to secure a safe future for all members of this species in Australia.

Finally, in the State of Queensland, the National Trust has accepted a nomination to add the toad to its list of State icons. In a newspaper article for Queensland’s *Courier-Mail*, journalist Brian Williams (2006) explains that ‘[t]o become a Queensland icon, items must have represented an important part of the state’s history or contributed to its cultural identity’. And it is certainly hard to deny that this animal fits into this category, especially if the abundance of cane toad souvenirs in tourist shops is taken into consideration. Not surprisingly, this decision has received considerable opposition from conservation minded sectors of society, who argue that a creature with pest status should not be included in a list of icons.

⁹ Hage (1998, p. 165ff) explores this correlation at some length in his discussion of ‘ecological nationalism’.

¹⁰ Taken from John F. Kennedy’s inaugural speech given on 20th January 1961. Available online at http://www.famousquotes.me.uk/speeches/John_F_Kennedy/5.htm. Accessed 04/10/06.

¹¹ The SAS is the Special Air Service Regiment of the Australian Defence Force. Some of these points were made partly with a sense of irony, but the general mood of this public meeting was that the suggestions were entirely appropriate.

¹² See the Australian Museum Online website under the heading of ‘Herpetology’. Information on caring for pet toads is provided in the section on ‘Frequently Asked Questions’ about Cane Toads. Available at http://www.amonline.net.au/herpetology/faq/cane_toad.htm. Accessed 04/10/06.

According to Williams (2006), however, the Executive Officer for the National Trust points out in defence of the decision that ‘icons were not necessarily meant to be loveable’.

These events enable us to make the point that even ecologically destructive ‘aliens’ can be ‘loved’ for various reasons (Rotherham, 2005b) – not least being a sense of familiarity facilitated by proximity, and perhaps at times an ironic celebration of what authoritative opinion says is an ugly, disgusting and worthless animal. Along these lines, the Queensland state rugby league football team has for some 20 years unofficially adopted the cane toad as its emblem. This was a response to the attempted derogatory description of Queenslanders as ‘cane toads’ by the team’s New South Wales rivals – clearly, the animal’s alleged quality of toughness is thereby put to use as a form of proud self-identification. Similarly, in some instances it is possible to identify acceptance of the cane toad as an authentic Australian – one Queensland taxidermist produces toad souvenirs that carry a label proclaiming them to be a ‘Geninue Aussie Toad’; if there is self-denigratory humour here it is surely commensurate with an ironic acknowledgement of the animal’s place amidst the nation’s fauna.

4. Restoration as re-conceptualisation of an ambiguous species

Restoration can also involve, or even require, the reconceptualisation of some species whose status is ambiguous. This process includes the cultural re-imagining of certain creatures once primarily reviled and culled as pests – but it is more complicated than simply re-valuing them. Unlike the cases of local native plants and the malleefowl, ‘re-conceptualisation’ as we use the term here, refers to the conscious re-assignment of the fundamental identity of a species – and thus its moral rights to belong in particular places.

The Dingo (*Canis lupus dingo*) is a complex and illustrative case. The animal may be said to occupy an ambiguous conceptual space in the thinking of Australians. Both ‘native’, yet known to have arrived from Asia some 3500 years ago,¹³ this is an animal that has been negatively portrayed as a ‘pest’ among pastoralists who run sheep and cattle, while also becoming increasingly highly valued (at least in its ‘pure’ form) among those committed to conservation and restoration (Peace, 2002). Aboriginal people are known to have had dingoes as camp dwellers, and the animals are reported for some parts of the continent as having traditionally been intimates and given culturally significant names (Meggitt, 1965, p. 15).¹⁴ Thus, Europeans encoun-

tered dingoes from the earliest period of colonisation. In 1699, explorer William Dampier (1699) described them as like wolves, and following British arrival the dingo was reportedly hunted like foxes were in England (Gould, cited in Marshall (1966, p. 18)). In 1897 Twain (1897, p. 67) thought the dingo a ‘beautiful creature’, albeit one doomed because it preyed on sheep; the South Australian government sought to expedite the process by introducing a bounty on dingo scalps in 1912.

Apart from its being regarded among pastoralists as a pest in relation to domesticated herd animals, not all earlier conservationist opinion was positive about the dingo’s place in Australian ecology. Writing in 1966, conservationist Vincent Serventy held that the dingo had been historically responsible for ‘exterminating’ the thylacine (also known as the ‘Tasmanian tiger’), as well as megafauna including the giant kangaroo and diprotodon. Serventy (1966, p. 18) did, however, acknowledge that: ‘The dingo certainly has a place in the Australian scene, newcomer though it is ... Those marsupials that could not stand the dingo predation have long since disappeared, so we should enjoy the animal as an attractive wild creature.’ More recently, an ecologist’s report on ‘introduced mammals’ on islands in Western Australia (Burbidge, 2004) classified the dingo as an ‘exotic’ species, ‘having been taken to islands by Aborigines within the last 4000 years’.

The dingo is not endemic to the Australian continent, being also found throughout southeast Asia.¹⁵ Nevertheless, recent discussions have seen some concern about maintaining a ‘pure’ Australian breed, this often being framed in terms of the dingo’s ability to interbreed with domestic dogs. The Australian Native Dog Conservation Society is an organisation dedicated to preserving the genetic purity of the dingo¹⁶; and the Australian National Kennel Council recognised the species as a pure breed of dog in 1994,¹⁷ though it is illegal to keep dingoes as pets in a number of Australian States.

Analysts of Australian culture have made the point that attitudes to dingoes have often rested on their perceived quality of being ‘cunning’ (Parker, n.d.), and as sitting ‘in the spaces between wild and civilised’ (Instone, 1998, p. 458). By one view, the dingo holds ambiguous cultural significance partly because it is thought to be ‘the latest pre-white non-human animal arrival on the continent’ and hence is sometimes referred to as ‘feral’ (Instone, 1998, p. 458). This is despite its presence in Australia over some 3500 years and known significance in Aboriginal culture. Alternately, the dingo has been contrasted to the cat, the

¹³ Australian Museum fact sheets, available at: <http://www.amonline.net.au/factsheets/dingos.htm> (accessed 7/10/06).

¹⁴ Meggitt (1965, p. 23) makes the point that this was a situation of ‘intermittent exploitation of a pool of wild dingoes to replenish the smaller group in the camp’; thus, he regards Aboriginal relations with dingoes as best characterised by the notion of ‘quasi domestication’ of selected animals, not the domestication of a whole species.

¹⁵ Australian Museum fact sheets, available at: <http://www.amonline.net.au/factsheets/dingos.htm> (accessed 7/10/06).

¹⁶ See <http://www.dingosanctuary.com.au/FSDingo.htm>. Accessed 04/10/06.

¹⁷ See discussion in the NSW Legislative Assembly of a dingo protection Bill that acknowledges the animal’s formal status as Australia’s native dog. Hansard transcript available online at <http://www.parliament.nsw.gov.au/prod/PARLMENT/hansArt.nsf/V3Key/LA19921029005>. Accessed 04/10/06.

latter being branded increasingly as ‘un-Australian’ (Smith, 1999, p. 299) – in this view, the dingo is ‘our’ wild dog, and it belongs while feral cats, more recently introduced, do not (p. 303).

This issue of whether the dingo ‘belongs’ in Australian environments, whether ‘restored’, ‘re-natured’ or simply among relatively undisturbed areas of ‘wilderness’, is germane to our interest in the question of how negotiated cultural identities impact upon social constructions of ‘nature’ and what is ‘natural’.

Dingo both belongs and does not belong. For non-Aboriginal Australians who are wondering where they belong in this land and how to relate to the environment, the dingo may well be a useful metaphor showing ways of finding a place, showing us how to go ‘wild’ and move away from our domestic European heritage (Instone, 1998, p. 458).

The Australian dingo is thus distinctively caught up in the negotiation of nativeness and cultural belonging. Franklin (2006, p. 21) suggests that Australians regard dingoes as ‘a naturalised introduced species’. It has ‘served sufficient time to be counted as a native, but the precise criteria for nativeness remain vague and confusing’ (p. 21). Drawing on Smith (2000, p. 142), Franklin comments that ‘dingo narratives’ ‘affirm the notion that colonists can be indigenised’; the species has thus a ‘distinctive symbolic potency’. Nevertheless, along with the conviction of its authentic Australian credentials, the dingo’s characteristic ‘cunning’ may simultaneously be valued negatively. Marcus (1989, p. 15, fn. 5) points out how the term (or name) itself can be used as an adjective with a ‘strongly pejorative’ meaning. In Australian slang, a ‘dingo’ is a coward or cheat, and the verb form of the term means to act in a cowardly manner, drop out of something or let someone down.¹⁸

Marcus takes up the well known ‘Chamberlain case’ where a dingo allegedly took a baby from her parents’ camp site in Central Australia in 1980. She seeks to locate ‘the place of the dingo/wild dog in discourse’ (1989, p. 15). The dingo figure held great symbolic significance in this case, in which the baby’s mother was initially convicted of murder, then eventually found innocent. Marcus considers the dingo to be ‘one of the markers of the outback, the wild, of the outside of civilisation and, at the same time, the marker of Australian authenticity’. It is ‘untameable, undomesticable, prowling around the margins of civilisation’ (p. 16). She asks why, in the Chamberlain case, was public opinion initially that a dingo would never take a child, given antipathy to the animal in other arenas of Australian life? The dingo thus emerged as a morally ambiguous figure, portrayed alternately as capable of stalking a human victim, and yet part of the culturally celebrated landscape of the desert.

Similarly, Peace (2002, p. 175) considers ambiguity surrounding the dingo as both charismatic fauna and danger to humans in the eco-tourist location of Fraser Island north of the city of Brisbane. On the one hand, the animal’s presence is featured extensively in publicity materials advertising the island’s ecological desirability. It is portrayed as an icon of the wildness of the island and given ‘charismatic properties’, partly on the basis of a questionable proposition that these are ‘purebred’ creatures in comparison to mainland dingoes, as the island animals are said to have had less opportunity to breed with domestic dogs (p. 181). In this representation, the animal ‘is not photographed in aggressive or hostile mood, it is consistently docile and passive, and always at a distance from the camera’ (p. 182). However, on the other hand, Peace reports how in mid 1998 plans were under way to kill selected dingoes on Fraser Island, due to the risk they posed to visitors. And in 2001, a 9-year-old child was in fact killed in such an attack, which led to a cull of approximately 65 animals (despite reported protests from some Aboriginal people claiming traditional ownership of the island).¹⁹

Such a plurality of significance in relation to the dingo is also evident from our own ethnographic inquiries on the western side of the continent. A senior government zoologist speaks of the historically valuable role of dingoes in ‘controlling’ kangaroo populations – a form of natural control said to be now problematically removed given the eradication of dingoes from southwest agricultural landscapes. However, this positive ecological view is not shared by a government Agricultural Protection Officer, interviewed in 2000 on one of the remote cattle stations he visits in his role of managing feral animals – for him, it is the ‘wild dogs’ that are the focus of most of his species control efforts.²⁰ He explains how pastoralists are contracted by government to employ a ‘dogger’, i.e. a person whose job is to shoot dingoes. Aerial baiting is also used. This man explains the logic:

The dogs are a significant problem where you run sheep, they can cause huge economic losses if the numbers get to a level where they are damaging, but we try and keep them under that level. When you run cattle, the damage isn’t [as] significant, it’s mainly calves that you lose through direct attacks or mis-mothering [resulting] from dogs stirring cattle up – the calves clear off and the cows can’t find them again.

A similar disposition was evident among the station employees. In 2000, our interviewer recorded the view that evident dingo tracks indicated numbers of the animal in the bush were generally held to be ‘pretty bad this year’. As

¹⁹ ‘Dingoes kill boy at tourist spot’, BBC News Online, 30 April 2001.

²⁰ There appears at times to be some conceptual slippage between the terms ‘wild dogs’ and ‘dingoes’, with the former category possibly including animals resulting from inter-breeding between domestic dogs and dingoes. However, for the most part, it was clear our interviewees were speaking of dingoes.

¹⁸ *Collins Australian Dictionary*. Fifth edition, 2003. HarperCollins Publishers. See also Grzimek (1967, pp. 223–230), who points out that the phrase ‘You dingo!’ is an ‘Australian term of abuse’.

well as the engaged services of a ‘dogger’, men ‘from town’ wanting to shoot for sport could reportedly be directed to areas on the station where ‘there is some vermin’, the latter said to include ‘donkeys, dingoes and camels’ (the dingo being the only ‘native’ species in this group).

Yet indicative in the same remote region of the coexistence of contesting attitudes towards this animal, was our researcher’s observation on leaving the station and encountering a group of tourists being shown a local mining operation; great interest was expressed among the visitors in photographing and appreciating a wild dingo that happened to cross the road in front of the tour bus. The tour guide commented at the time that people are not supposed to feed such dingoes but she thought mine employees did so on occasion.

These two attitudes, that the dingo is a pest because it threatens the livelihood of pastoralists and that it is also a picturesque part of the bush, generally coexist in our interview material with a broad vagueness in public understanding on the question of whether or not this is a ‘native’ animal. For another Western Australian Government Agriculture Department scientific officer, the dingo illustrates well the relative arbitrariness of imposing a strict measure of nativeness on species now found across the Australian continent. Whether or not a species ‘shouldn’t be here’, he says, cannot realistically depend on some notion of whether it was ‘part of the original ecology of the country’ – the dingo has become ‘naturalised’ over some 3500 years, and thus this can occur for other species that arrived during the past 200 years with Europeans. Indeed, as an aside, our informant implied that this is also the case for humans; ‘40-odd thousand’ years of Aboriginal occupation has involved such a process: ‘if something that comes in becomes naturalised . . ., how long has it got to be here before it is recognised as a legitimate part of the ecology?’ His implication was that non-Aboriginal persons have also been ‘naturalised’ and now belong here.

5. Conclusion

The case materials presented have illustrated the negotiated and ambiguous nature of Australian ideas about what ‘belongs’ ecologically and culturally across the broad continent of this relatively young post-Settler nation. We have sought to foreground these issues through consideration of what ‘restoring’ nature might mean in the context of debates about increasing the presence of native plants in public spaces and private gardens, the re-introduction of an iconic species of ground dwelling bird, the removal of cane toads that are demonised as highly ‘alien’, and the multiple ways in which the dingo is regarded ambiguously as both native (purely Australian) and introduced – seen by some as a ‘pest’ that needs to be controlled and culled, and by others as a valued, threatened species.

These cases illustrate changing processes of valuing flora and fauna in diverse ways. To this extent, we find both ‘natural’ and ‘exotic’ categories of plants and animals

replete with preoccupations arising from the historico-cultural backgrounds and identities of citizens. Practical decisions about ecological restoration are thus entwined with culturally driven assumptions and judgements (whether or not these may be articulated consciously). In making this case, we draw particularly on the disciplines of history and anthropology in understanding human relations with nature. However, in depicting contestations and ambiguities surrounding definitions of appropriately ‘restored’ landscapes, it is not our intention to suggest that conservation science is lacking in rigour or focus. On the contrary, the vigour with which such issues are debated is testament to the vibrancy of the relevant natural science disciplines, and the difficulties of making management decisions when knowledge is often partial and desired outcomes urgent. While acknowledging the practical importance of ecological restoration, we seek to show how both popular thought and scientific discourses on nature are necessarily set within historico-cultural contexts – and thereby produced by more than solely rational evaluations of environmental facts.

Central to our discussion has been how the Australian case foregrounds complex notions of ‘nativeness’ as critical to the issue of ecological restoration. Given the ambiguities surrounding how this concept may be understood, in both nature and society, it would seem that cultural and historical analysis ought to be recognised as complementing ecological studies in this area. By showing how the idea of restoring nature can be informed by a variety of powerful sentiments – in terms of re-naturing, re-valuing and repatriating indigenous species, and/or rejecting certain exotics with great passion – we seek to illustrate the importance of social science insights for understanding environmental management strategies and responses to them. This is an area of research where humanities and science scholars clearly might engage intellectually more than usually occurs.

References

- Aitken, R., 2004. *Gardenesque: A Celebration of Australian Gardening*. Miegunyah Press in conjunction with the State Library of Victoria, Carlton.
- Aitken, R., Looker, M. (Eds.), 2002. *The Oxford Companion to Australian Gardens*. Oxford University Press, South Melbourne.
- Anonymous, 2003. Going native. *Very Best of Gardens & Outdoor Living Garden Design* (1), 26–31, Special Collector’s Edition.
- Anonymous, 2005. MP Wants Cane Toad Killing to be a Sport. *West Australian*, Tuesday April 12th, p. 28.
- Archer, M., Beale, B., 2004. *Going Native: Living in the Australian Environment*. Hodder, Sydney.
- Archetti, E.P., 1997. *Guinea pigs: Food Symbol and Conflict of Knowledge in Ecuador*. Berg, Oxford, UK.
- Arthur, J., 2003. *The Default Country: A Lexical Cartography of 20th Century Australia*. University of New South Wales Press, Sydney.
- Benson, J.S., Redpath, P.A., 1997. The nature of pre-European native vegetation in south-eastern Australia. *Cunninghamia* 5 (2), 285–328.
- Benson, J.S., Redpath, P.A., 1998. A response to Flannery’s reply. *Cunninghamia* 5 (4), 782–785.
- Bligh, B., 1973. *Cherish the Earth: the story of gardening in Australia*. Ure Smith in association with the National Trust of Australia, Sydney.

- Bonyhady, T., 2000. *The Colonial Earth*. Miegunyah Press, Carlton.
- Bowman, D.M., 1998. Tansley review no. 101: the impact of Aboriginal landscape burning on the Australian biota. *New Phytologist* 140, 385–410.
- Boyd, R., 1963. *The Australian Ugliness*. Penguin Books, Ringwood.
- Brown, J.H., Sax, D.F., 2004. An essay on some topics concerning invasive species. *Austral Ecology* 29, 530–536.
- Brown, J.H., Sax, D.F., 2005. Biological invasions and scientific objectivity: reply to Cassey et al. *Austral Ecology* 30, 481–483.
- Burbidge, A.A., 2004. *Introduced Mammals on Western Australian Islands: Improving Australia's Ability to Protect its Island Habitats from Feral Animals*. Final Report for the Australian Government, Department of Environment and Heritage.
- Cane, S., 2002. *Pila Nguru: the Spinifex People*. Fremantle Arts Centre Press, Fremantle.
- Cassey, P., Blackburn, T., Duncan, R., Chown, S., 2005. Concerning invasive species: reply to Brown and Sax. *Austral Ecology* 30, 475–480.
- Clarkson, B., McQueen, J., 2004. Ecological restoration in Hamilton city, North Island, New Zealand. In: *Proceedings of the 16th International Conference, Society for Ecological Restoration*, Victoria, Canada, August 24–26, 2004.
- Dampier, W., 1699. *A voyage to New Holland*. Available in the Gutenberg ebook, <http://www.gutenberg.org/files/15675/15675.txt> [Alan Sutton, Gloucestershire, 1981].
- Ellen, R., Fukui, K. (Eds.), 1996. *Redefining Nature: Ecology, Culture and Domestication*. Berg, Oxford, UK.
- Flannery, T., 1994. *The Future Eaters: An Ecological History of the Australasian Lands and People*. Sydney, New Holland.
- Flannery, T., 1998. A reply to Benson and Redpath. *Cunninghamia* 5 (4), 779–781.
- Flannery, T., 2002. The day, the land, the people. <http://www.adc.nsw.gov.au/tim_welcome.html/>. (accessed 7/02/02).
- Franklin, A., 2006. *Animal nation: the true story of animals and Australia*. University of New South Wales Press, Sydney.
- Frawley, J., 2003. People got a gun: the 1914 Melville Island enquiry. *Journal of Northern Territory history* 14, 51–69.
- Gaynor, A., 2006. *Harvest of the Suburbs: An Environmental History of Growing Food in Australian Cities*. University of Western Australia Press, Crawley.
- Gleitzman, M., 1999. *Toad Rage*. Puffin Books Australia, Victoria.
- Gleitzman, M., 2001. *Toad Heaven*. Puffin Books Australia, Victoria.
- Gleitzman, M., 2003. *Toad Away*. Puffin Books Australia, Victoria.
- Gooding, J., 1991. *Wildflowers in art: Artists' impressions of Western Australian wildflowers 1699–1991*. Art Gallery of Western Australia, Perth.
- Greer, G., 2003. Whitefella jump up: the shortest way to nationhood. *Quarterly Essay* (11), 1–78.
- Grzimek, B., 1967. *Four-legged Australians: adventures with animals and men in Australia*. Collins, London.
- Hage, G., 1998. *White Nation: fantasies of white supremacy in a multicultural society*. In: Annandale. Pluto Press, Australia.
- Holmes, K., Martin, S.K., Mirmohamadi, K. (Eds.), 2004. *Green pens: a collection of garden writing*. Miegunyah Press, Carlton.
- Horstman, M., Wightman, G., 2001. Karpanti ecology: recognition of Aboriginal ecological knowledge and its application to management in north-western Australia. *Ecological Management & Restoration* 2 (2), 99–109.
- Hutcherson, G., 1998. *Gong-wapitja: women & art from Yirrkala*. Aboriginal Studies Press, Canberra.
- Instone, L., 1998. The coyote's at the door: revisioning human – environment relations in the Australian context. *Ecumene* 5 (4), 452–467.
- Jones, R., 1969. Fire-stick farming. *Australian Natural History* 16, 224.
- Knight, J. (Ed.), 2000. *Natural Enemies: People–wildlife Conflicts in Anthropological Perspective*. Routledge, London, UK.
- Langton, M., 1996. Art, wilderness and terra nullius. In: *Proceedings of the Ecopolitics IX Conference Papers and Resolutions*. Northern Territory, Northern Land Council, pp.11–24.
- Lattas, A., 1992. Primitivism, nationalism and individualism in Australian popular culture. In: Arnold, J., Attwood, B. (Eds.), *Power, Knowledge and Aborigines*. La Trobe University Press, Bundoora.
- Lewis, S., 1989. *Cane Toads: an Unnatural History*. Doubleday, New York.
- Low, T., 1999. *Feral Future: The Untold History of Australia's Exotic Invaders*. Viking, Ringwood.
- Low, T., 2002. *The New Nature: Winners and Losers in Wild Australia*. Viking, Ringwood.
- Lullfittz, G., n.d. *A New Image for West Australian Plants*. Self-published.
- Marcus, J., 1989. Prisoner of discourse: the dingo, the dog and the baby. *Anthropology Today* 5 (3), 15–19.
- Marsden-Smedley, J.B., Kirkpatrick, J.B., 2000. Fire management in Tasmania's Wilderness World Heritage Area: ecosystem restoration using indigenous-style fire regimes? *Ecological Management & Restoration* 1 (3), 195–203.
- Marshall, A.J., 1966. On the disadvantages of wearing fur. In: Marshall, A.J. (Ed.), *The Great Extermination: A Guide to Anglo-Australian Cupidity*. In: *Wickedness and Waste*. Heinemann, Melbourne.
- Meggitt, M., 1965. The association between Australian aborigines and dingoes. In: Leeds, A., Vayda, A. (Eds.), *Man, Culture & Animals: The Role of Animals in Human Ecological Adjustments*. American Association for the Advancement of Science, Washington, DC, pp. 7–26.
- Miller, L., 2003. *Belonging to country: a philosophical anthropology*. *Journal of Australian Studies* (76), 215–223.
- Morris, B., 1998. *The Power of Animals: An Ethnography*. Berg, Oxford, UK.
- Morris, B., 2000. *Animals and Ancestors: An Ethnography*. Berg, Oxford, UK.
- Morton, J., 1996. *Aboriginality, Mabo and the republic: indigenising Australia*. In: Attwood, B. (Ed.), *In the Age of Mabo: History Aborigines and Australia*. Allen & Unwin, St. Leonards.
- Morton, J., Smith, N., 1999. *Planting indigenous species: a subversion of Australian eco-nationalism*. In: Neumann, K., Thomas, N., Ericksen, H. (Eds.), *Quicksands: Foundational Histories in Australia & Aotearoa New Zealand*. UNSW Press, Sydney, pp. 153–175.
- Mulcock, J., 2006. Welcome to my dreaming place: landscape, identity and settler belonging in contemporary Australia. In: Willett, G. (Ed.), *Thinking Down Under: Australian Politics, Society and Culture in Transition*. Wissenschaftlicher Verlag Trier, Trier.
- Mullin, M., 1999. Mirrors and windows: sociocultural studies of human–animal relationships. *Annual Review of Anthropology* 28, 201–224.
- Nichols, O.G., Nichols, F.M., 2003. Long-term trends in faunal recolonization after bauxite mining in the Jarrah forest of Southwestern Australia. *Restoration Ecology* 11 (3), 261–272.
- Parker, M., n.d. *The cunning dingo*. Paper presented at Animals & Society Conference, University of Western Australia, July 12–15, 2005.
- Peace, A., 2002. The cull of the wild: dingoes, development and death in an Australian tourist location. *Anthropology Today* 18 (5), 14–19.
- Plumwood, V., 2000. *Belonging, naming and decolonisation*. *Ecopolitics: Thought and Action* 1 (1), 90–106.
- Powell, R., Emberson, J., 1996. *Growing locals: gardening with local plants in Perth*. Western Australian Naturalists' Club (Inc), Perth.
- Probyn, F., 2002. *How Does the Settler Belong?* *Westerly* (47), 75–95.
- Read, P., 1994. *Joy and Forgiveness in a Haunted Country*. New Norcia Studies, 1–9.
- Read, P., 2000. *Belonging: Australians, Place and Aboriginal Ownership*. Cambridge University Press, Cambridge.
- Rigsby, B., 2000. *Not indigenous, merely born here*. Les Murray: some thoughts on being indigenous in Australia. University of Queensland. Unpublished paper delivered May 2000.
- Rival, L. (Ed.), 1998. *The Social Life of Trees: Anthropological Perspectives on Tree Symbolism*. Berg, London, UK.
- Robin, L., 2001. *The Flight of the Emu: a hundred years of Australian Ornithology 1901–2001*. Melbourne University Press, Carlton.

- Rolls, E., 1981. *A Million Wild Acres*. Nelson, Melbourne.
- Rolls, E., 2002. *Visions of Australia: Impressions of the Landscape 1642–1910*. Lothian Books, Port Melbourne.
- Rose, D.B., 1996. *Nourishing Terrains: Australian Aboriginal Views of Landscape and Wilderness*. Australian Heritage Commission, Canberra.
- Rotherham, I., 2005a. Invasive plants – ecology, history and perception. In: I. Rotherham (Ed.), *Loving the Aliens?!!?: Ecology, History, Culture and Management of Exotic Plants and Animals: Issues for Nature Conservation*. *Journal of Practical Ecology and Conservation Special Series* (4), 52–61.
- Rotherham, I. (Ed.), 2005b. *Loving the Aliens?!!?: Ecology, history, culture and management of exotic plants and animals: issues for nature conservation*. *Journal of Practical Ecology and Conservation Special Series* (4), 52–61.
- Russell, E.P., 1996. Speaking of annihilation: mobilizing for war against human and insect enemies, 1914–1945. *Journal of American History* 82, 1505–1529.
- Sansom, B., 2001. Irruptions of the dreaming in post-colonial Australia. *Oceania* 72 (1), 1–32.
- Seddon, G., 2005. *The Old Country: Australian Landscapes, Plants and People*. Cambridge University Press, Melbourne.
- Serventy, V., 1966. *A Continent in Danger*. London, Deutsch.
- Shanklin, E., 1985. Sustenance and symbol: anthropological studies of domesticated animals. *Annual Review of Anthropology* 14, 375–403.
- Smith, N., 1999. The howl and the pussy: feral cats and wild dogs in the Australian imagination. *The Australian Journal of Anthropology* 10 (3), 288–305.
- Smith, N., 2000. *Nature, native and nation in the Australian imaginary*. PhD Thesis. School of Sociology, La Trobe University.
- St. John, G., 2001. Australian alternatives: cultural drama and indigeneity. *Social Analysis* 45 (1), 122–140.
- Tacey, D., 1995. *Edge of the Sacred: Transformation in Australia*. Harper Collins Publishers., Sydney.
- Trigger, D., 2004. Indigeneity, ferality and what belongs in the Australian bush: nature, culture & identity in a settler society. In: *Law, plural society & social cohesion in the 21st century*, Proceedings of the 14th International Congress, Commission on Folk Law and Legal Pluralism, vols. 26–29 (August), University of New Brunswick, Canada.
- Twain, M., 1897. *Following the Equator*. American Publishing Co., Hartford.
- Urquhart, P., 1999. *The New Native Garden: Designing with Australian Plants*. New Holland Publishers, Sydney.
- Williams, B., 2006. Toad Gains Stately Status. *Courier-Mail*, 29/09/06. Available online <<http://www.news.com.au/couriermail>> (accessed 04/10/06).
- Wilson, J.R., 2005. Cane toads had some serious work to do for the Queensland family. *Letters to the Editor*, *The Weekend Australian* 9–10 (April), 18.
- Wilson, A., 2006. Attack of the Toads. *The Weekend Australian Magazine* 22–23 (July), 30–33.