Nature positive? Commodification, speciesism, abjection in Australia's environmental law reform

Jane Palmer¹ | Jennifer Lynn Carter²

¹Centre for Heritage and Culture, University of Southern Queensland, West St, Toowoomba, QLD Australia

²School of Law and Society, University of the Sunshine Coast, Sippy Downs, QLD, Australia

Correspondence

Jane Palmer, Centre for Heritage and Culture, University of Southern Queensland, West St, Toowoomba QLD 4350, Australia. Email: jane.palmer@unisq.edu.au

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Abstract

Proposed "nature positive" revisions to the Australian Government's environmental legislation would further entrench an anthropocentric conception of nature as a commodity able to be metricised, traded, and/or replaced. The proposed legislation also manifests a form of speciesism, focusing on threatened species at the expense of other animals whose habitat would continue to be destroyed, and fails to account for future likely changes in the survivability of various species. Moreover, it takes little account of the suffering of individual animals nor the agential role of animals, plants, rocks, and mountains in more-than-human world-making, thus placing those nonhumans in abjection-that is, accorded no moral considerability. Using the Australian case to anchor our discussion, we conclude that truly "nature positive" approaches to the environment require a shift in emphasis from principally enabling "sustainable" exploitation of resources by humans, toward a focus on sustaining the multitude of context-specific, intensely relational networks of humans-other-than-humans. These relations engender a responsibility on the part of humans, when intervening through legislation, policy or practice, to pay deep attention to the specifics of nonhuman standpoints, subjectivities and relations with place-ground truthing-so that greater knowledge and critical, less anthropocentric thinking can underpin more ethical regulatory frameworks.

KEYWORDS

abjection, anthropocentrism, Australian environmental legislation, commodification of nature, ground truthing, speciesism

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KEY INSIGHTS

Proposed changes to Australian environmental conservation legislation entrench anthropocentrism, focus on threatened species at the expense of others, fail to account for future changes in the survivability of species, and assume that habitats, animals, and plants are fungible i.e. can be replaced by others of the same kind elsewhere. The changes also fail to accord moral considerability to the suffering of individual nonhumans. These overlooked ethical and material consequences can best be addressed through in-depth localised studies of place and relationships between humans and nonhumans, a ground-truthing that can in turn change the culture and politics of conservation legislation.

1 | INTRODUCTION

The Australian landscape has undergone rapid and widespread transformation since European colonisation in the late eighteenth century. Australian endemic species constitute 6–10% of the globally recognised extinctions since the 1500s, a percentage that is likely to be higher given the number of undocumented species (Woinarski et al., 2019). Woinarski et al. (2019) also note that biodiversity loss is more far-reaching than species extinctions because other species populations and their distribution are drastically declining.

In the wake of an international "nature positive" compact agreed upon in 2021 (G7 Cornwall UK, 2021), the Australian Government has introduced into Parliament its own suite of proposed "nature positive" legislation to revise and augment the national Environment Protection and Biodiversity Conservation (EPBC) Act 1999. We offer a critique of the proposed Australian legislation based on the assumptions and aims that underpin it. In particular, we argue that contrary to efforts elsewhere to acknowledge the interdependencies and reciprocal relations between human and nonhuman, the proposed legislation maintains human exceptionalism: it separates humans from "nature", privileges human judgements about what "acceptable" level of harm can be done to the nonhuman, selectively favours some species over others, uses human abstractions like "populations" to elide the suffering of individual nonhumans, and metrics that fail to take account of a "biotic entity" as part of a specific context that is also likely to change in the future in response to climate change.

The Wentworth Group of Concerned Scientists (2024) estimates however that less than 0.3% (A\$7.3 billion) of Australia's GDP spent annually over 30 years on 24 actions could avoid most extinctions, recover species and restore degraded lands.¹ We suggest in our discussion below that the feasibility of such action will depend on cultural and political shifts that reconceptualise nature in a more complex way.

Questions that need to be addressed include: how do we, as a community, business, industry, government, expert, or advocate, make judgements about which habitats, which species, which plants, animals, or other natural elements should survive? Which are expendable-are abjected-in the development of human dwellings, infrastructure, and enterprises? These are judgements affecting both human and nonhuman interests, in the short term and the longer term. We suggest that the cultural and political change needed to address human-centric conceptions of "nature", speciesism, and the abjection of individual nonhumans, can be addressed through increased awareness of the deep entanglements and reciprocities between human and nonhuman, as articulated by writers in cultural geography, environmental humanities, and multispecies studies, through a study of practices elsewhere that respect the agentic status of the nonhuman, and through place-based "ground truthing" that has already proved to be capable of swaying governments and community (Smith, 2018).

In Section 2 we provide background to the development of the *EPBC Act* 1999 and the current Federal government's proposals for "nature positive" legislative reform. We critique these proposals in terms of their underlying assumptions and consequences (Section 3), and offer alternative conceptual underpinnings and actions (Section 4) that have the potential to frame a truly "nature positive" approach to the Australian environment. We conclude (Section 5) that such a reframing of conservation legislation is needed to avoid the devaluing of serious and irretrievable loss in the more-than-human world.

2 | BACKGROUND: NATIONAL ENVIRONMENTAL LEGISLATION IN AUSTRALIA

2.1 | The Environment Protection and Biodiversity Conservation Act 1999

The objectives of the Australian government's national *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* (to remain in force alongside the proposed new legislation), include "protection of the environment, especially those aspects of the environment that are matters of national environmental significance ... [to] ... promote ecologically sustainable

developmentthe conservation of biodiversity ... [and] ... the protection and conservation of heritage" through a cooperative approach with governments, community, landholders and Indigenous peoples (Australian Government, 2024a, Chapter 1, Section 3 [1]). The Act articulates an assessment and approvals process for development proposals in terms of their potential to impact matters of national environmental significance such as World or National heritage, wetlands of international importance, threatened species and communities, migratory species, nuclear action, the marine environment, and other water resources. legislation is enabled by the Australian This Constitution (section 51[xxix]), which gives the Federal Parliament the power to make laws in order to fulfil international agreements and obligations. By coupling business activity/approval/impact with biodiversity and heritage protection, the EPBC Act also articulates with several decades of United Nations Conventions on Sustainable Development.

In a critique of Australia's environmental legislation, BirdLife Australia's 2018 report (Lau & Quixley, 2018) on "restoring the balance" noted the failure of laws such as the EPBC Act to prevent the extinction of Australian birdlife, with one in six bird species now at risk of extinction. The Act outlines the ways in which a Minister might decide whether an action "has, will have or is likely to have a significant impact on certain aspects of the environment" (Australian Government, 2024a, Chapter 2, Section 11); a development approval requires "assessment of impacts of controlled actions. to provide information for decisions whether or not to approve the taking of the actions" (Australian Government, 2024a, Chapter 4, Section 80). Lau and Quixley (2018) stressed the inadequacy of such terms as "significant" and "controlled actions" in the Act and warned that "extinction is a choice" including failure or inadequacy of action. Their report recommended national environmental standards, landscape-scale planning to protect critical habitats, strong institutions, transparent decision-making, and strengthened community input.

2.2 | The international context informing developments in Australia

Ahead of the 2022 United Nations Biodiversity Conference and the 2023 United Nations Climate Change Conference, leaders of the Group of Seven (G7) nations (Canada, France, Germany, Italy Japan, the United Kingdom, and the United States) committed to a nature compact to globally cease and reverse biodiversity loss by 2030 (G7 Cornwall UK, 2021), aiming for a world that was not simply "net zero but also nature positive for the benefit of both people and the planet" (G7 Cornwall UK, 2021, p. 1). It called on humans to – \mid Geographical Research – ${
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think "differently about our place in the world" within the next decade (Holdorf et al., 2021). There have since been additional pledges from 88 Heads of State, supported by 126 Nobel Laureates, businesses, and a Taskforce on Nature-Related Financial Disclosure (Holdorf et al., 2021).

The notion of "nature positive" suggests global resilience, particularly around human activity such as food production, resource management, infrastructure planning, and urban development, in ways that also create economic opportunity (Holdorf et al., 2021). Noting that systemic economic change is needed to mitigate impacts on biodiversity, the G7 leaders committed to working in partnership with Indigenous peoples and local communities, and to recognise the interests of marginalised peoples. The compact stressed the need for financial incentives and levers to halt illegal activity. and for "nature negative" impacts to be replaced by those that are "nature positive" (G7 Cornwall UK, 2021, p. 2). It also stressed the need for increased investment in, and accountability for, nature in financial decisions; global targets for protected species and ecosystems; and accountability and implementation of the commitments prioritised in national plans.

2.3 | Australia's proposed environmental law reforms

In 2024, Australia hosted the inaugural international "nature positive" summit (Lowe, 2024), which aimed to build consensus around nature investment and environmental protection and repair. At the summit, the Australian Environment Minister outlined the national Nature Positive Plan (DCCEEW, 2022), committing to the target of 30% of land and waters protected or restored by 2030 (the " 30×30 target") and "no new extinctions". Our discussion of the Australian Nature Positive Plan reforms and related laws and bills provides an instructive example in light of the many countries who are now signatory to the Global Biodiversity Framework, which also has the 30×30 target.

A 2020 Independent Review of the Australian *EPBC Act* (Samuel, 2020) noted the failures of the existing legislative framework to protect biodiversity. The Independent Review built upon the BirdLife Australia report (Lau & Quixley, 2018) with a range of recommended reforms, the centrepiece of which was the introduction of binding and enforceable National Environmental Standards. Other recommendations were in line with the global commitment to the "nature positive" concept. The 2022 Nature Positive Plan (DCCEEW, 2022), aims for Australia to be "nature positive" by 2030, through three stages of progressive reforms. The laws and bills, and wider reforms proposed in the Plan, adopt a monetised and metrics-based view of nature as envisioned in the "nature positive" compact agreed upon at the 2021 G7 summit (G7 Cornwall UK, 2021), which called for systemic economic change, using financial incentives and levers, increased investment in nature and the presence of nature in financial decisions:

Clear National Environmental Standards and coordinated conservation planning ... must be supported by investment in management and restoration. This includes a national nature repair market, which will drive innovation and give nature a real financial value. (DCCEEW, 2022, p. 10)

The broader "nature positive" reforms propose that development projects avoid "unacceptable and unsustainable impacts on matters of national significance" to "deliver net positive outcomes for Matters of National Environmental Significance" (DCCEEW, 2022, p. 12). In line with the recommendations of the Independent Review (Samuel, 2020), this would be achieved through conservation planning that addresses each nationally listed threatened species and ecological community, and through clear, regularly reviewed, outcomes-based standards. There is also a reference to more humane welfare conditions and assessing the suitability of importers in the international wildlife trade (DCCEEW, 2022).

In the first stage of reform, the Government legislated the *Nature Repair Act 2023* (Australian Government, 2024c) with similar objectives to the *EPBC Act* but with the added goals of "no new extinctions"; engagement with the "market participants" of previously named stakeholders and the addition of private enterprise; and building a knowledge base and capacity to enhance and protect native species (Australian Government, 2024c, Section 3).

Provided they meet stipulated requirements, an "eligible person may apply for a project to be registered on the Biodiversity Market Register" to encourage investment in environmental restoration (Section 4). Obligations include compliance with methodology determinations, reporting, notification, and record-keeping; biodiversity certificates, which represent an achieved outcome, are transferable (Section 4). Biodiversity assessment instruments are used by the Minister with regard to advice from a Nature Repair Committee made up of experts from agriculture, biology, economics, environmental markets, Indigenous knowledge, and land management (Sections 59, 198). A methodology determination is used to assess whether the project complies with, or requires conditions, before issue of a certificate and entry on the Register (Section 45). The methodology determination complies with Biodiversity integrity standards if it enhances nature or avoids significant impact, and needs to be able to be measured, assessed, and verified (Section 57).

This first stage of reforms also expanded the *EPBC Act* water trigger so that unconventional gas proposals are assessed for their impact on water resources. It involved:

> building a nature repair market. This world-first measure is a legislated, national, voluntary biodiversity market in which individuals and organisations undertake nature repair projects to generate a tradeable certificate. The certificate can be sold to generate income. Demand for certificates is expected to grow over time. (Lowe, 2024)

The second stage, likely to be considered by the Australian Parliament in 2025, includes the Nature Positive (Environment Protection Australia) Bill 2024 and related bills (Australian Government, 2024b), which propose two new national agencies: Environment Protection Australia and Environment Information Australia. These bills outline proposed governance arrangements, including amending nine environmental laws for Executive power. They propose amending the EPBC Act to "increase criminal and civil penalties, introduce new compliance and enforcement powers, and amend 'stop-the-clock' provisions" (Australian Government, 2024b, Section 1[4]), to be implemented by Environment Protection Australia. Environment Information Australia will produce State of the Environment reports and progress toward national goals, facilitating for business "easier access to the latest environmental data", and faster development approvals (Section 1[21]).

The third stage will be the development of National Environmental Standards, an issue that has been debated in Australia for some time. As early as 1992. national environmental protection measures such as standards, guidelines, goals and protocols, and a national environmental protection authority were agreed to in principle in the Intergovernmental Agreement on the Environment (IGAE) signed by Heads of Commonwealth, State and Territory governments and the President of the Australian Local Government Association (Department of Environment and Energy, 1992). That agreement aimed to facilitate national cooperation between all parties, thereby reducing disputes and enabling business certainty and environmental protection. Fundamental principles to be applied were those of ecologically and economically sustainable development and effective assessment of environmental impact. The EPBC Act has since enabled bilateral agreements between the Federal and State governments to facilitate a two-stage approvals process for development affecting 'protected matters', in which the Federal government makes the final decision (DCCEEW, 2023); there remain however no national environmental standards.

More fundamentally, we argue in the following sections that underlying Australia's "nature positive" initiatives and the proposed legislative reforms, are cultural and political conceptualisations of "nature" and human-nonhuman relations that enable and disguise significant harm to nonhumans and the future of the more-than-human environment.

3 | LIMITATIONS OF THE PROPOSED REFORMS: COMMODIFICATION, SPECIESISM, AND ABJECTION

3.1 | Commodification (metricising and replaceability)

Hare et al. (2018) pinpoint a fundamental problem of humanity, in that pro-conservation attitudes are widespread, yet biodiversity continues to decline. Environmental legislation and policies are the principal response by governments to concerns about environmental damage (Bartel & Carter, 2021); these continue to have as their principal objective the continuation of human activities that damage nature, with some limitations based on the conservation of "populations" and like-for-like "ecosystems":

> The dominant Anglo-Western legal system does not have environmental protection at its foundation—it instead privileges exploitation—and thus environmental law is limited to providing ad hoc remedies rather than more fundamental reform to address systemic failures. (Bartel & Graham, 2023, p. 195)

Conservation planning in the Government's proposed reforms will require State and Territory governments, working with the Commonwealth, to develop regional plans. These plans will be designed to protect some areas, restore others, and demarcate remaining areas for sustainable development. Conservation plans will require the delineation of "Areas of High Environmental Value", where development is "largely prohibited" and nature is protected. In "Areas of Moderate Environmental Value", development would be allowed subject to a "mitigation hierarchy" (DCCEEW, 2022, p. 19). The proposed mitigation hierarchy is that "impacts should be avoided then mitigated, or, if this is not possible, offset (either by securing environmental offsets or making conservation payments) in accordance with any priorities identified in the regional plan" (DCCEEW, 2022, p. 19). The remaining areas in the plans delineate the "Development Priority Areas" where (sustainable) development is permitted without Commonwealth approval, although "certain types of land use and development" will require State-based

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approval (DCCEEW, 2022, p. 20). The allocation of areas to the three categories is, as Carver notes, a matter of (human) judgement, rather than an inevitable outcome of intrinsic qualities of those environments: "value is performed, not discovered" (2019, p. 81). Moreover, terms such as "largely prohibited" will continue to permit destructive development in the absence of any "absolute" prohibition.

Spatially demarcating areas available for development rely on a commodification of nature where species and habitats can be subject to market mechanisms such as offsets and financial levers. Mitigating environmental impacts may include financial innovation (such as reduced costs for environmental restoration of habitat) and the use of carbon markets or offsets. Offsets are acknowledged as problematic in the Nature Positive Plan, and so "reforms" to offsets are intended, such as the application of a national environmental standard. Offsets are proposed as the last option in the mitigation hierarchy and one that should always provide a "net gain" for the environment. Where no suitable offsets are available within a region, a conservation payment is proposed based on a "like-for-like" estimate of habitat restoration for impacted species. Already, some mining companies have lobbied against "unrealistic" offsets on the basis of uncertainty for business, warning of "billions of dollars in lost investment and tens of thousands of jobs in Western Australia alone" (Hall & Foley, 2024).

Offsets and nature banking have been thoroughly critiqued because they rarely achieve their aim, and instead enable biodiversity loss (see for example Beck & Bartel, 2021; Possingham et al., 2024), which is counter to the idea of acting in a way that is "nature positive". It has been pointed out that humans are powerless to restore or replace ecosystems due to their locational specificity, the length of time required to rebuild complex ecosystems, and the inappropriateness of metrics in restoration (Beck & Bartel, 2021; Hill & Phinn, 1993). The idea of like-for-like replacement relies on the false assumption that ecosystems are fungible:

> The diverse entities that populate the universe may be created by their interaction, but this is not to say that they do not also create this interaction through their unique particularity and emplacement. (Davison, 2015, p. 304)

Carver (2019) critiques the calculative devices that constitute the quantitative and monetised valuation process. Transformation of biodiversity to a numerical value relies on individuation, that is, separating an entity from its place-based context, and quantifying it within a new conceptual category. Abstraction then assimilates the entity into a standardised spatial or functional category to obtain the metric. Each layer imposes "notional commensurability between biotic 6

entities" such that the metric is assigned rather than intrinsic and representative (Carver, 2019. p. 81). This projection of metrics onto nature is applied to conservation measures enacted on Indigenous peoples' Country: "non-Indigenous people reimagine forests, fish, and rivers on Indigenous territories as 'timber products', 'fish stocks', and 'water resources' to be protected and managed" (Muller et al., 2019, p. 401).

In addition to the challenges of offsets, habitat restoration has failed to demonstrate it can support the species in question (Lau & Quixley, 2018, p. 9). Humans have limited understanding and appreciation of how species diversity will be reorganised in the face of global climate change (Burrows et al., 2014), affecting ecosystem functions and in turn, the nature of climate change itself, with additional implications for human well-being in food production systems, disease transmission, climate mitigation, and aesthetics (Pecl et al., 2017). Species' geographic ranges are changing in ways that vary with taxa and species traits (Sunday et al., 2015), migrating in multi-directional ways (VanDerWal et al., 2013) as they experience shifts in the timing of seasonal temperatures and precipitation and the sheer pace of climate change. Hence, current "species conservation strategies, place-based preservation, and ecological restoration" are likely to be redundant strategies (Sandler, 2012, p. 11).

Even releasing captively bred animals to recolonise areas simply returns animals to a place where the future habitat may not be that of the past, increasing the need for further human intervention and management costs (Sandler, 2012), which would mitigate against investment by the private sector. While it may be valuable to re-introduce animals to their environment to enhance biodiversity and the resilience/recovery of ecosystems (Standish & Parkhurst, 2024), the promise of "replacement" or "restoration" overlooks the under-explored issues of ghost extinctions: the "unknown unknowns" of "species that have been lost without a trace—with no evidence they ever existed" (Woinarski & Marsh, 2024), and the essential role of older animals in supporting species populations (Kopf et al., 2024).

Sandler proposes spatially retaining "places" to recover in their own way unless there is a particularly adverse impact (such as insufficient time for species to successfully co-evolve with other species). Beck and Bartel (2021, p. 261) remind us that "humans are cocreations of nature" in such a place agency-based approach.

3.2 | Speciesism (anthropocentric selectivity)

The recent satirical novel, *Venomous Lumpsucker* (Beauman, 2022), explores the potential perverse consequences of humans setting criteria for which species

should survive or become extinct. Climate change threatens all species, troubling the notion that priority be given to the protection of "threatened" species, as Woinarski et al. (2019) note in their broader concern for biodiversity loss. The BirdLife Australia report (2018, p. 10) cautioned against human speciesism which protects some threatened nonhuman species at the expense of other threatened nonhuman species. Both the *EPBC Act* and the Nature Positive Plan focus on that which is deemed by humans to be of significance: areas of beauty (for example, world heritage) and species seen as "on-the-brink" of extinction or subject to the requirements of international agreements.

However given the proposed legislative changes we describe above, there should also be concerns for species that are not defined as "threatened" or "significant", such as common, ubiquitous, and highly adaptable species like the Australian magpie (Gymnorhina tibicen), which may be more resilient to climate change. The territorial nature of magpies demonstrates the complexities of interspecies community and survivability; this bird is known for swooping on humans to deter them from moving too close to chicks during the breeding season, but it will not swoop on humans who live in the bird's home place and whom they already know (Brown, 2017). This territoriality means however that destruction of their habitat signals their demise. Health or economic risk to humans generates social, media, and political discourses that perpetuate anthropocentrism and speciesism, and ultimately, flawed public policy, as seen in the case of sharks who bite humans (Walters & Couper, 2023). In one such case, using an exemption in the EPBC Act, Western Australian government officials killed the sharks, despite their protection under international law and public opposition concerning sharks' place in marine ecosystems that support human well-being, and the availability of alternative measures. Walters and Couper (2023, p. 155) argue that speciesism legitimated official decision-making because sharks are not socially constructed as "a charismatic, endearing creature with human-like characteristics".

Sandler (2012) stresses the academic contestation over the notion of a species, which can variously be defined in reproductive, morphological, genetic, evolutionary, and other terms. He questions whether the concept of a "species" is real. He proposes species instead be conceived of as a "form of life":

Species are beautiful and wonderful. They are also historical phenomena. They are instantiated at a time and place, they can change over time, and they go extinct. We can influence these events and processes, and increasingly do so as our technological capabilities expand. Therefore, an ethic of species is needed to guide choices regarding preserving, modifying, and creating them. Central to an ethic of species is an account of the value of species and the ethical significance of species boundaries. (Sandler, 2012, p. 198).

3.3 | Abjection of the nonhuman

Greater or lesser valuing of species also points to issues with the ethically debatable approach of supporting the conservation of a species while destroying individuals at one particular location who are deemed non-essential to the species' survival. For example:

> ... the suffering of individual dingoes becomes subsumed in the debate about the dingo as a "type" of nonhuman, as a "pure representative" of the species, or as an essential component of the ecosystem, producing and reproducing an ethics of space in which nonhumans may be rendered invisible. (Carter & Palmer, 2017, p. 221)

Gibbs points to the harm done through humans' ability to abstract from the individual to the collective (Gibbs, 2021, p. 374), and Srinivasan notes that in turtle conservation, the individual turtle matters only as part of the "turtle population" to be conserved; "population" becomes further abstracted to "ecosystem" where "turtle flourishing becomes important because of its interconnectedness with the flourishing of the humananimal biosocial collectivity" (Srinivasan, 2014, p. 506). Moreover, Srinivasan (2014) notes the impact of such biopolitical approaches on the conservationists themselves, who undergo what she calls an "agential subjectification" that reinforces their focus on the welfare of "populations" and their alienation from the perverse impacts of many "care" and conservation measures on individual animals: "the drive to secure the life of a population, or a 'species logic' ... allows conservation practices to emerge that include killing of other species to preserve or recreate specific habitats" (Hine et al., 2022, p. 522). This is also an alienation from natural affective responses to the suffering of those animals, and hence from according them moral considerability. This amounts to the abjection of individual nonhumans:

> Abjection puts not the act of killing itself into question but rather, to speak in Haraway's ... words, the process of "making killable", the how and why of rendering certain matters and beings killable through governmental intervention. (Fleischman, 2023, p. 5 and citing Haraway, 2008)

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In the current and proposed Australian legislation, it is the use of offsets that perhaps most clearly places the nonhuman individual (as opposed, for example, to a species) into a state of abjection (Fleischman, 2023), that is, with zero rights or intrinsic value (except, possibly, in terms of financial "compensation"). In rendering individual nonhumans invisible through the conservation abstractions of "species", "population" and "ecosystem", the individual is rendered abject, that is, not a subject of moral consideration. Animals, and even more so plants and other natural features of a place/landscape, such as mountains, ocean currents, rivers, and rocks, are generally seen as outside moral or ethical considerability (Eckersley, 2011, pp. 243, 245, 248; Phillips, 2020, p. 162; Winter, 2019, pp. 15, 17). A corollary is the absence of legal status of the nonhuman: "In its Anglo-Western form ..., the dominant model of property law elides place and the broader non-human world from consideration" (Bartel & Graham, 2023, p. 196). Overcoming "reckless" disregard for these relationships and interdependencies that include humans is needed, notes Davison (2015, p. 304), to "enable the human-other-than-human maintenance of a worldly commerce of sustenance."

4 | WAYS TO RESPOND: FOREGROUNDING NONHUMAN AGENCY AND STANDPOINTS, GROUND-TRUTHING

4.1 | Foregrounding nonhuman agency and standpoints

The work of many scholars in the environmental humanities and human-animal relations presents a strong counterpoint to the abjection of the nonhuman in conservation regulation and metrics: from Jennifer Wolch's "zoöpolis" (Wolch, 1998), Donna Haraway's *When Species Meet* (Haraway, 2008), Jamie Lorimer on elephants (Lorimer, 2010), Eileen Crist on earthworms (Crist, 2002), Taylor and Carter on dolphins (2013), Thom van Dooren on crows (van Dooren, 2013) to Deborah Bird Rose on flying fox exuberance (Rose, 2022), the standpoints and agency of the nonhuman have been insisted upon. These writers' engagement with the nonhuman also conveys, without anthropomorphising, nonhumans' experiences of loss, confusion, distress, and pain.

In the case of plants, Western science is increasingly revealing agency, responsiveness, and reciprocity between plants themselves and between plants and animals and those in between. From Anna Tsing (2012, 2014, 2015) on the standpoints of mushrooms and spores, through the issue of "plant blindness" that subverts our relations with the plant world (Jose et al., 2019; McKim & Halpin, 2019; Sanders, 2019; Wandersee & Schussler, 1999) and the need for better $\perp_{\mathrm{WILEY}-1}$ Geographical Research -

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botanical education (Blue et al., 2023; Stroud et al., 2022), the place of plants in Indigenous cosmologies (Kimmerer, 2020 (2013); Neidjie, 1988; Ryan, 2020), to the agency and neurobiology of plants (Diaz, 2022; Hall, 2011; Henry et al., 2023; Lawrence, 2022; Ryan & Giblett, 2018), writing on plants has expanded the possibilities for more caring and respectful relations between humans and this part of the more-than-human world.

We noted above the experience that conservationists may have of alienation from the suffering of individual nonhumans when focused on protecting "populations." Emotion is a significant driver of a careethic directed toward nonhumans (Karlsson, 2011, p. 271), as evidenced in Australians' response to images of burnt koalas during the Black Summer bushfires of 2019-2020 (Leimbach & Palmer, 2022). The "last man" argument in philosophy, as described by Richard and Val Routley (1980) (later Richard Sylvan and Val Plumwood), is a discussion of the ethics of the last remaining person on earth laying waste to all other living things; it raises the issue of whether things have value only if there is a human present to value them (Lamb, 2018). Routley and Routley propose that our (initial) response to such a scenario is generally an affective one: "a feeling that a place should be valued or respected for itself" which is different from the feeling that "it should not be defaced because it is valued by one's fellow humans, and provides pleasurable sensations or money or convenience for them" (Routley & Routley, 1980, p. 131). The emotion evoked by an object "is crucial to recognition of its value" (Lamb, 2018, p. 575, italics in original) and a "way of coming to know" that something has value in itself (Sylvan, 1986, p. 18). While the quality of "intrinsic value" remains, in Routley and Routley's conclusions, something at least partly dependent upon human affect, analysis, and judgement, this is an early example of an emphasis on the importance of affect in coming to understand and act ethically within the morethan-human world. It also stands in contrast to the metric valuations of nature described by Carver, where "perhaps the symbolic violence of the metric ... renders nature even more disposable and alienable than before such 'valuation'" (Carver, 2019, p. 88).

The anthropocentrism of the idea of "value" is exposed in the works of the new materialists and others, who describe instead reciprocal and energetic relations between all things, for example, Bennett's vibrant matter (2010), Latour's networks of actants (2005), Deleuze and Guattari's assemblages (2004 (1987) (see also Delanda, 2016), Barad's mutually constitutive intra-active agentic matter (2007), and Deborah Bird Rose's waves of vitality and desire that constitute "intra-active symbiotic agreements" (Rose, 2022, p. 139). These works, while expanding the universe of things that are seen as agentic and active, do not reduce the responsibility of humans to act ethically:

Learning how to intra-act responsibly as part of the world means understanding that "we" are not the only active beings – though this is never justification for deflecting our responsibility onto others. (Barad, 2007, p. 391)

This is also reflected in Ejsing's comment:

The hope of the new materialists is that paying attention to the entanglements and interdependencies between human beings and the rest of the world, might help build a more ethical disposition toward it. (Ejsing, 2024, p. 66)

In addressing the abjection of the nonhuman, attention also needs to be drawn to "animals" own emotional or affective states [and] ... cross-species intersubjectivity ... [rather than the usual anthropocentric] ... emotional responses directed towards animals" (Howell & Kean, 2018, p. 45). These nonhuman subjectivities encompass the affective response of the nonhuman itself and its intangible connection to place. Gibbs (2020) asks of us that we "hear the cry" of the nonhuman and that we extend our regard beyond those animals most commonly considered. In her review, hearing the cry requires humans to "attend to the lives and experiences of animals themselves." Species are not a uniform homogenous group (Tang et al., 2018), but comprised of individuals; however humans have failed "to acknowledge their identities as differentiated individuals and the potential for them to have place attachments" (Van Patter & Hovorka, 2018, p. 289). While it is critical for nature protection that human empathy for suffering is aroused, it also a matter of knowing, for example, that the flying fox feels its own grief for the loss of its habitat and kin (van Dooren & Rose, 2012).

> Geographies of emotion are transspecies as well as transpersonal. We may struggle to access and articulate the emotions of other animals, whether at the species level or that of the individual animal, but by focussing on the transmission of emotion between humans and nonhumans it is possible to say something about the role of animals' emotional stateswe do not restrict emotion to human beings, offering all other animals only modest allowances of "affect". (Howell & Kean, 2018, p. 52)

... dogs are individuals not automata There is no easy dividing line between animal "affect" and human "emotion". (Howell & Kean, 2018, p. 49)

Some of this scholarship is having an impact on conservation discourses (Muller et al., 2019, p. 402). Nonhuman elements of the world, already integrated into Indigenous cosmologies and ontologies as agentic participants in more-than-human world-making, are being acknowledged by some governments as having their own ethical and legal status. The Aotearoa (New Zealand) Government has accorded legal personhood to a river and a forest in acknowledgement of their rights to representation in decisions that affect them (Muller et al., 2019, pp. 405-406; Winter, 2019, p. 19): for the river Te Awa Tupua, "[t]he principles of the agreement enshrine the indivisibility of the Whanganui people and the river" (Muller et al., 2019, p. 406); ancestral mountains of the Taranaki people have also been accorded legal personhood (Goldsmith, 2024). Whales and dolphins in Aotearoa and the Pacific Islands have been recognised as legal persons in a treaty between Indigenous leaders (Doornbos & Whitehead, 2024) and dolphins are now acknowledged as "nonhuman persons" in India (Whale and Dolphin Conservation, 2013). In Bolivia, the Law of Mother Earth stipulates that "[t]he State and any individual or collective person must respect, protect and guarantee the rights of Mother Earth for the well-being of current and future generations" (World Future Fund, n.d.). In Brazil, the waves at the mouth of the Doce River in Linhares have been granted legal personhood (Eco Jurisprudence Monitor, 2024; May, 2024).

The national constitution of Ecuador provides that "Nature, or Pacha Mama, where life is reproduced and occurs, has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes" (Center for Latin American Studies, 2011, Title II, Ch7)²; in a court ruling made under this provision, the rights of the Machángara River were deemed to have been violated by pollution, the responsibility of the Quito city government (Associated Press, 2024).³ The Los Cedros forest in northern Ecuador was also granted protection (Warner, 2024) and a 2024 report on the impact of this on the forest found that, despite ongoing issues in implementation and the need for continued vigilance:

> the ultimate outcome of interest is that Los Cedros is effectively free of mining operations and continues to serve as a biodiversity sanctuary and a source of clean water, air, and well-being for humans and nonhumans alike. As site visits and conversations with a wide range of stakeholders

suggests, without the ruling, Los Cedros would in all likelihood have experienced the environmental deterioration and massive extinction of species of other forests turned into sites for mining in the region, in Ecuador, and around the world. Therefore, this study substantiates the potential of rulings and initiatives on the rights of nature or "more-than-human rights"— as a tool to address ecological crises such as biodiversity loss, climate change, and pollution (NYU More Than Human Life [MOTH] Project et al., 2024, p. 100)

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4.2 | Ground truthing (attentiveness to place, more-than-human subjectivities, and relationalities)

Fundamental questions in determining what/who "matters" in making judgements about conservation versus development include: Whose interests are served by the development? Who or what will be abjected to enable development? And when we "ground truth" the consequences of development, we see other questions: Who (individuals) or what (species) will die? Who or what will survive and who will suffer? What kind and extent of suffering will be allowed? What practices, ceremonies, or traditions will cease? What dynamics and interrelationships will be disrupted or destroyed? Who or what is fungible and can be replaced by something else of the same kind elsewhere?

Place cannot be re-placed because "place connects milieu or environment to a subject, individual or collective" (Bartel & Carter, 2021, p. 382, citing Entrikin, 1997). Foregrounding the meaningful and agentic place-making and place attachments within any community of more-than-human things can help to develop an ethics of co-dwelling that informs government legislative measures:

What is needed then is a balancing of ethical claims and interests of all sentient beings found in a particular locale – here feral cats, humans, birds, rodents, etc. – and recognition and incorporation of their various place-making practices and attachments to place into local management schemes. (Van Patter & Hovorka, 2018, p. 291)

Lakota scholar Vine Deloria, Jnr points out that First Nations American peoples "talk about the immediate environment in which they live. They do not embrace all trees or love every river or mountain. What is important is the relationship you have with a particular tree or a particular mountain" (Deloria Jnr, 1999, cited in WILEY- | Geographical Research -

Andersson et al., 2021, pp. 7–8). This relationality can be seen analogously for the nonhuman in Beck and Bartel's (2021, p. 259) point that each nature place consists not just of individual animals or plants but a "richness, dynamism and diversity" that cannot be "reduced to discrete units." However, the approach adopted by governments to nature conservation and offsets, "reframes biodiversity as lacking locational specificity" (Beck & Bartel, 2021, p. 259, citing Apostolopoulou & Adams, 2017: 23).

One proposal for a way forward to better understand the impacts of human activities is to develop detailed place studies "that are sensitive to non-human agency and consider that biophysical conditions are not simply a backdrop to human activity but influence and inform human action" (Bartel & Graham, 2023, p. 195). Such studies of the complex qualities of place already occur in assessing the impact of planning decisions on humans; Vajjhala (2006), for example, has used participatory mapping techniques to inform planning policy, where maps include not only landmarks but symbols for "intangibles" such as perceptions of accessibility, diversity, and each mapmaker's interests and connections with their community. These maps tend not to correspond with "zip codes, census tracts" (p. 15), but are a way of "ground truthing" planning, Vajjhala suggests, in "local realities and perceptions" (p. 18). Of particular relevance to our discussion of the non-fungibility of the nonhuman is her comment:

> [P]lanners involved in siting major energy facilities require detailed technical information about possible sites including soil types, tree heights, and other relevant environmental data, while residents are often more generally interested in how a new project might impact their communities and landscape views. Both groups require common information about the same project, but displayed at very different scales and levels of detail. (Vajjhala, 2006, p. 17)

What can be seen in this comment is that the two types of "information" are in fact incommensurable: the soil types or tree heights needed by the planners are discrete, tangible, measurable records, whereas the maps drawn by the community members represent their intangible, often affective, relationships with these elements of the environment as well as with other community members. While other places may have the right tree heights or soil types for a major energy facility, the probability of another place matching even one of the participatory maps is very low. This kind of incommensurability goes to the heart of the issue with "nature banking" and its inability to compensate for or replace a habitat or ecosystem: the affective, relational qualities of a place pre-empt any equivalence in a substitute. Acknowledging and taking respectful account of the nonhuman individuals and relations, the tangible and intangible constituents of a place, in environmental policies and planning—"hearing the cry" of the nonhuman (Gibbs, 2020)—can be done only through close observation, mapping, learning about nonhuman standpoints and the relations between all of those elements that amount to a unique dynamism and a unique set of interests or "place-agency" (Bartel, 2018; Bartel & Graham, 2023). The idea of ground truthing encompasses this kind of learning—it is a process that requires patient attention, and is deeply specific to place, illuminating "more opportunities and potentials for reimagining human-nature relationships" (Bartel & Graham, 2023, p. 196).

The arts have played a significant role in changing humans' connection with the nonhuman: socially engaged art projects are working with communities to conserve native grasses (Armstrong, 2022); artists supported activists in the 1980s campaign to save the Tasmanian Franklin River from the impacts of dam construction ("the arts helped build group cohesion and solidarity, as well as enabling empowerment, emotional expression and the prevention of violence and burnout" [Branagan, 2020]); and then there is the poetic writing of Terry Tempest Williams (Trimble & Williams, 1996) and others about environmentally threatened desert environments in Utah:

> Copies of [Trimble and Williams' edited book] *Testimony* were distributed to Congress, and it was instrumental in the designation of the Grand Staircase-Escalante National Monument in Utah in September 1996, with President Bill Clinton declaring, "This little book made a difference". (Smith, 2018, p. 10)

Smith (2018, p. 10) notes Williams' and Ellen Meloy's "close attention to an emotional register" in their writing, and its basis in "their personal rootedness and intimacy with the desert." Through a "quiet listening to, and learning from, the land" (Smith, 2018, p. 7), Williams and Meloy write closely about the place in a way that "promotes commitment, investment, and intimacy with the land" (Smith, 2018, p. 4); these writers effect a "quiet politics" by demonstrating "new ways of valuing, thinking about, engaging with, and responding to the labyrinthine canyon country of southern Utah" (Smith, 2018, p. 11). The changes they have effected in the management of the Utah desert country are a matter of "commitment and courage [that] has shifted from page to place" (Smith, 2018, p. 9).

It is this attention to a specific place, affect, and aesthetics in the work of the arts—writing, poetry, photography, film-making (Hobart, 2021), place-based participatory art practices (Armstrong, 2022)—that aims to shift human relations with a river, a forest, a grass, an island or an animal. Attentiveness to specificities of place alerts us to what is not readily substitutable, and the connectivities elided in discussions about species preservation or habitat replacement. It also draws attention to the individualities of animals and plants, in order to understand nonhuman standpoints or "get at' experiences" animals' (Gibbs, 2020, p. 771). "Learning to be affected" by nonhuman animals creates different relationships between human and nonhuman animal (Hinchliffe et al., 2005, p. 648), as does learning to be affected by forest (Diaz, 2022) or rivers, but it also teaches us the significance of place and the interconnectivities that sustain it-"mutualisms" of needs and desires, for example between pollinators and the pollinated, earth diggers and soil aeration (Rose, 2022, p. 139 and citing Freya Mathews, 2015).

Native American (Chicaza) poet and academic Linda Hogan reflects on the purpose of her practice: "If I could tell the truth about how people are affected by environmental change, perhaps it might touch the hearts of others and offer a means of transformation" (Hogan, 2017, p. 23). Hogan writes of particular places-the Hydroguebec dam project, the Everglades, the consciousness others" "to change of (Hogan, 2017, p. 24). With these place-specific writings, "we have been putting this world back together, not only in creative form, but also in some of the restorations that are taking place" (Hogan, 2017, p. 24).

5 | CONCLUSION

Australia's proposed "nature positive" legislation continues a globally widespread practice of prioritising human "development" needs over those of the nonhuman. Its assumptions about the fungibility of ecosystems and the more-than-human, about which species warrant protection, and its privileging of metrics over the suffering of individual nonhumans, undermine its claim to be "nature positive" and call into question the ethical basis of the proposed reforms. Truly "nature positive" approaches to the environment sustain context-specific, relational networks of humans-otherthan-humans. These relations engender a responsibility on the part of humans, when intervening through legislation, policy, or practice, to pay deep attention to the specifics of nonhuman standpoints, subjectivities, and relations with place-ground truthing-so that greater knowledge and critical, less anthropocentric can underpin more ethical regulatory thinking frameworks.

As Phillips (2020, p. 162) notes:

To care about and understand the specific environmental, social, and economic struggles experienced by humans and other life forms require an understanding of the ways in which those issues stem from socio-economic and political systems

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By paying greater attention to scholars "who focus on animal rights, welfare, subjectivism, or agency in a world with increasing violence toward nonhuman animals" (Carter, 2020, p. 420), and to the work done in other nations on according moral and legal status to the nonhuman, we—government, community, conservationist, business or agriculturalist—might see the loss of any more-than-human place, or indeed an individual like a backyard friendly magpie, for what it is: "a multispecies unravelling of possibility and purpose: the end of a storied world" (Davison, 2015, p. 304).

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ORCID

Jane Palmer https://orcid.org/0000-0002-4131-4482 Jennifer Lynn Carter https://orcid.org/0000-0002-9585-0627

ENDNOTES

- ¹ In estimating the cost of (unfeasible) *full* restoration of habitats and species – A\$583 billion per year, every year, for at least 30 years or 25% of Australia's GDP – conservation scientists Reside et al. (2025) note their surprise finding that 81% of the total costs would be for controlling weeds "because weeds cover such large areas of Australia."
- ² It appears however that the Ecuador government has now permitted oil drilling in the Amazon to resume: https://www.nytimes.com/2023/ 01/14/climate/ecuador-drilling-oil-amazon.html.
- ³ Of note too is a recently published book by English writer Robert Macfarlane on the more-than-human status of rivers (Macfarlane, 2025).

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