


DIVERSITY

Indigenous governance and the future of conservation

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I was researched. Now I research on my terms in the language of law, kinship, and Country. This statement signals my reckoning with the historical extraction of Indigenous knowledge and the need to rebuild conservation around Indigenous governance. Grounded in relational accountability, reciprocity, and Indigenous law, I argue that such principles can reshape how rigor and responsibility are understood and practiced in conservation. The same systems that marginalize Indigenous Peoples also fail to protect Country. Country, understood in Indigenous law as a living system encompassing land, waters, skies, and other living and nonliving entities with whom people are in ongoing relational accountability, is treated as an object of management rather than a source of law, authority, and obligation. This reframing is urgent because dominant conservation practices continue to reproduce colonial habits that displace Indigenous authority, extract knowledge faster than relationships can form, and make decisions for Indigenous Peoples rather than with them.

Indigenous Peoples globally are not merely participating in conservation; they are leading its transformation. From Māori-led freshwater governance in Aotearoa to community-designed biodiversity programs in Brazil, relational models of care are reshaping and redefining who holds authority in environmental decision-making (Brubacher et al., 2024; Clapcott et al., 2025; Diele-Viegas, 2025; IPBES, 2019). Across Australia, calls

to recenter Indigenous authority have intensified. The Australian Institute of Aboriginal and Torres Strait Islander Studies Code of Ethics (AIATSIS, 2020) embeds self-determination and community governance as national standards for research. In conservation research and practice, effective biodiversity governance is widely recognized as dependent on Indigenous leadership and long-term comanagement (Ens et al., 2015; Goolmeer et al., 2022; Robinson & Wallington, 2012). I respond to these calls by offering an Aboriginal perspective grounded in lived experience and relational ethics that shows how Indigenous governance principles can reshape the foundations of conservation science. I go beyond inclusion toward structural change by centering accountability, reciprocity, and Country as the measures of ethical practice. Throughout this article, *Indigenous* is used for global contexts, whereas *Aboriginal* refers specifically to Australian Aboriginal Peoples.

As an Australian Aboriginal scientist, I move between spaces that demand different kinds of accountability. In the laboratory, experiments, deadlines, and publications require speed and precision. On Country, time expands and relationships are built over seasons, often years. Knowledge is not extracted but exchanged, and rigor comes from respect, from waiting and listening until Traditional Owners give their consent. Both spaces demand discipline, but they define responsibility differently. I situate Western scientific practice as one

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knowledge system among others and argue that relational approaches grounded in Indigenous law are necessary to address enduring tensions in conservation governance. Two-way and relational science approaches can offer pathways for these systems to work together, such that empirical precision and ethical responsibility are combined. My work arises from both histories, being studied, silenced, and excluded, and the resurgence of Indigenous-led science grounded in law and kinship.

As an Aboriginal scientist working in conservation, mycology, Indigenous knowledge, and environmental policy, I navigate laboratory and institutional worlds shaped by these differing accountabilities. Working in Western institutions and Aboriginal law places me inside the “cultural interface” (Nakata, 2007), a space of tension and translation, where Indigenous knowledge systems are negotiated and reasserted in the face of dominant scientific paradigms. I extend the concept of the cultural interface to applied conservation research to examine how Indigenous governance principles provide a practical framework for ethical science and data stewardship. In conservation research, Indigenous law and Western scientific methods meet at the interface and often clash around questions of evidence, time, and authority.

In my work, this interface is grounded in the cultural authority of Country and community and made visible in the movement between the laboratory and the field. Responsibility, reciprocity, and moral accountability are embedded in kinship with land and more-than-human life (Bird Rose, 2004). Recognizing the cultural interface as an active research space allows conservation to move beyond inclusion toward genuine cogovernance of knowledge. In this space, I translate across epistemologies not to reconcile them but to insist that both can coexist under Indigenous governance. When Indigenous roles are symbolic, decisions are made elsewhere, and Country becomes managed through policy rather than relationship. Shared authority, not participation without power, is the basis of meaningful inclusion.

My right and responsibility to speak on these matters arise from my lived experience and formal training. I am an Arrernte and Yolŋu woman, raised on Country in remote Aboriginal communities of the Northern Territory and guided by cultural teachings that ground my responsibilities to Country and kin. To illustrate how Indigenous governance principles operate in practice, I drew on my conservation research in Kakadu National Park, where relational accountability and cultural authority are reshaping the methods and ethics of conservation practice. As a child, I watched visiting scientists record what they saw and leave with our stories, plants, animals, and knowledge, often without consent, return, or accountability, a pattern that persists today.

I work differently. Each fungal specimen I collect is linked to Country through a biocultural label, ensuring governance, provenance, and consent remain intact (Anderson & Hudson, 2020; Local Contexts, 2023). I return knowledge to community through journal articles and plain-language reports, posters in local languages, and on-Country walks. During these walks, Elders and Aboriginal Rangers share stories of where cer-

tain fungi grow, how fire, soil, and water affect them, and which sites must not be disturbed. These exchanges expand what counts as ecological evidence, recognizing observation, story, and Country itself as legitimate sources of data in conservation research. Such recognition strengthens relationships, privileges Aboriginal expertise, and allows knowledge to remain with the places and people to which it belongs. This turns a legacy of being studied into a practice of accountable science grounded in respect, reciprocity, and responsibility and guided by the truth that Country and community come first. These practices provide a model for how conservation science can build accountability through Indigenous governance, rather than relying solely on external ethical oversight.

The absence of Indigenous voices in conservation decision-making is structurally produced, not accidental (Rigney, 1999; Schofield, Stratford, & Davison, 2026; Shields et al., 2024). This exclusion reflects institutional power, funding constraints, and the devaluation of Indigenous knowledge systems, not a lack of capability or care among Aboriginal Peoples (AIATSIS, 2020; Nakata, 2007; Rigney, 1999; Walter & Andersen, 2013).

The systems that marginalize Indigenous Peoples also fail to protect Country. Indigenous exclusion is central to the ecological crisis. When Indigenous governance is sidelined, the systems that best care for Country are disabled. Today's environmental crisis is not only a result of scientific failures but also of relationship failures.

Indigenous Peoples, who have contributed least to this crisis, are most affected by it (Brubacher et al., 2024; Whyte, 2017). Despite centuries of dispossession and erasure, Indigenous Peoples continue to uphold their responsibilities to Country. They treat living and nonliving entities not as resources but as kin, following law, story, and ceremony (Bird Rose, 2004; Yunkaporta, 2019). This is not a crisis of knowledge but a crisis of relationship between institutions and communities, between people and Country, and between conservation science and Indigenous law.

The dominant worldview in conservation treats the living world as separate from the observer and reduces it to a collection of discrete species, populations, or systems. For example, a tree is identified taxonomically, assessed for its carbon storage, and valued for its ecological function. In Indigenous ways of knowing, that tree is also a teacher, a witness, and an ancestor in kinship networks that guide governance and ethical responsibility. Both truths coexist, but only one is consistently recognized in conservation policy, practice, and institutional decision-making.

Western scientists often ask, what is this? Indigenous Peoples ask, who are you and what is our responsibility to one another? These differences shape how conservation is practiced, from policy development to research funding. When entities are understood only by their function, they become easier to ignore, substitute, or eliminate. When they are understood relationally, as kin, rather than as commodities, accountability follows. That shift from abstraction to connection is a most powerful tool. Yet, Indigenous governance systems, which have cared for these lands and waters for tens of thousands of years, continue to be sidelined. Indigenous Peoples are often added to projects rather than permitted to lead.

Conservation frequently seeks innovation while overlooking long standing systems of care. Before conservation became a discipline, people cared for places with precision and purpose. These practices endure because Indigenous governance systems are systems of science held in language, law, ceremony, and Country. Indigenous Peoples do not seek inclusion in existing systems; the invitation is to recenter conservation around Indigenous authority. This requires asking whose knowledge built the foundations of Western science and whether power will be shared with that knowledge not merely consulted.

The invitation to share power is realized through practice. In my work, accountability to Indigenous law is lived. We pause during fungi surveys when Ceremony takes precedence, even if it delays sample collection, and provide bilingual results. We work with Aboriginal mushroom knowledge frequently described as lost in Western records, despite its continued presence and practice on Country.

I implement free, prior, and informed consent (FPIC), as articulated in the United Nations Declaration on the Rights of Indigenous Peoples (United Nations, 2007); recognize Indigenous cultural and intellectual property (Janke, 2021); uphold Indigenous data sovereignty (Lowitja Institute, 2024); apply the CARE principles as an operational framework for Indigenous data governance (Carroll et al., 2020); and adhere to the Nagoya Protocol (Convention on Biological Diversity, 2011). These practices establish an ethical baseline, but the deeper responsibility is an ongoing relational accountability that extends beyond procedural or checklist-based compliance. Efforts to standardize ethics often reproduce the asymmetries Indigenous governance seeks to unsettle (Nakata, 2007).

This ethical foundation is enacted on Country. It shapes what is researched and how that research is conducted. The Bininj/Munggyu Traditional Owners of Kakadu and I work alongside one another during fungi surveys, sharing knowledge of fungi used for food, medicine, and enjoyment. These are not only sample points but also living stories passed down with care. This research is conducted the Right Way, in accordance with Indigenous law, cultural authority, and place, and is guided by relationality and accountability rather than abstracted ethical procedure. Unlike earlier experiences of knowledge extraction, I am part of a research relationship grounded in protocol and FPIC and secured through clear agreements about what is shared, how it is stored, and how it will be returned.

Even with these global frameworks in place, research conducted relationally remains rare. Structural barriers, such as externally driven program priorities, ad hoc project design, and a lack of enduring funding, continue to hinder genuine partnerships with Indigenous communities (AIATSIS, 2020; Ens et al., 2015). Ethics processes still require researchers to define aims before community consultation, privileging bureaucratic compliance over dialogue.

Across ecology, data science, and Indigenous governance, institutional systems continue to measure success by productivity rather than relationships. In ecology and conservation,

values-centered research grounded in integrity, respect, humility, and reciprocity is being called for (David-Chavez et al., 2024). The CARE principles for Indigenous data governance shift research from consultative to values-based relationships that recognize Indigenous authority and consent (Jennings et al., 2023). The AIATSIS (2020) Code of Ethics enshrines these principles of self-determination, leadership, benefit to community, and accountability and specifies that communities be engaged as full decision makers rather than subjects of study.

If conservation and academic institutions measured success by how their work strengthens Country and returns value to community, rather than by output metrics, the foundation of research would shift from extraction to reciprocity. Indigenous governance is not an addition or protocol; it transforms conservation from a system of oversight to one of relationship and shared authority, and is the foundation of ethical practice.

The challenge is to recognize Indigenous leadership and act on it. Conservation practitioners and researchers must ask themselves what they will relinquish to create space for Indigenous governance. This may mean ceding authority, embracing humility, or confronting institutional discomfort. Conservation becomes an interdisciplinary science grounded in relationality, reciprocity, and respect when guided by Indigenous law. Without justice, conservation risks continuing colonial control under the guise of care. My invitation is to rebuild conservation frameworks on Indigenous governance and cultural authority, and to redefine conservation as an ethical relationship sustained by Indigenous law and reciprocity.

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