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Decolonial Conservation and Political Ethnobiology as a Pathway to Socio-Environmental Justice in the Global South

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ABSTRACT

Biodiversity conservation remains largely shaped by technocratic and colonial paradigms that marginalize the political agency of Indigenous peoples, traditional communities, and racialized populations. In response, we propose Political Ethnobiology as a critical approach for a truly decolonial conservation. Grounded in Political Ecology, decolonial thought, feminism, and Ethnobiology, we argue that socio-environmental conflicts are not externalities, but arenas of negotiation regarding power, knowledge, and nature. We examine how hegemonic models reproduce epistemic violence and exclusion through the enclosure of territories and disregard for local autonomy, despite legal instruments for benefit-sharing. This scenario reflects a structural incompatibility with plural ontologies. By centering local experiences and those of racialized women, we highlight the disputes within conservation governance. Based on this, we propose four pillars for a People-Based Decolonial Conservation: (1) epistemic justice and co-authorship of knowledge, (2) people-based conservation and pluriverses, (3) ethics of Buen Vivir and socioecological reciprocity, and (4) institutional transformation and epistemic justice. We advocate for a paradigmatic shift that goes beyond symbolic inclusion, advancing toward the redistribution of power, the recognition of "pluriverses," and the construction of practices grounded in social justice, ecological reciprocity, and political accountability.

Keywords: Political Ethnobiology; Decolonial Conservation; Epistemic Justice; Territorial Autonomy; People-Based Conservation.

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SIGNIFICANCE STATEMENT

This manuscript challenges the persistent colonial and technocratic paradigms in biodiversity conservation that marginalize Indigenous and traditional communities. We propose a novel framework of Political Ethnobiology and Decolonial Conservation, arguing that socio-environmental conflicts are central negotiations of power and knowledge rather than mere externalities. By integrating Political Ecology with decolonial thought, we outline four pillars – (1) epistemic justice and co-authorship of knowledge, (2) people-based conservation and pluriverse, (3) ethics of *Buen Vivir* and socioecological reciprocity, and (4) institutional transformation and epistemic justice - to restructure conservation practices. This work is significant as it advocates for a paradigm shift beyond symbolic inclusion, demanding the redistribution of power and the recognition of diverse ontologies ("pluriverses"). It offers a critical roadmap for transforming conservation into an emancipatory practice that centers the agency and rights of Global South communities.

INTRODUCTION

Nature conservation, historically conceived under the hegemonic paradigms of the Global North, has reproduced mechanisms of exclusion, rights violations, epistemic violence, and the territorial displacement of Indigenous Peoples and Local Communities (hereafter IPLC) in the Global South (Escobar 1998; Martínez-Alier 2002; Domínguez and Luoma 2020). Since the emergence of modern/colonial practices (see Dussel 1993; Mignolo 2017), nature has been transformed into an object of domination, a resource to be exploited, and a frontier to be conquered (Césaire 1978; Ferdinand 2022). This logic sustains what Moore (2015) termed the "capitalist world-ecology," a regime that transforms ecological and social relations into market reserve sources, the legacy of which persists in contemporary environmental conservation models. Thus, the global ecological crisis can only be fully understood through the lens of the colonization of territories and traditional knowledge (Escobar 1998; Santos 2019; Domínguez and Luoma 2020).

Coloniality is structured by multiple forms of violence, spanning materiality and immateriality, expressed in the expropriation and commodification of opportune territories, knowledge, and biodiversity; in the rendering invisible and delegitimization of Indigenous and local knowledge; and in the "dispensability" of life (Soldati and Almada 2024). The imposition of a "white ecology" (Krenak 2018) – which separates humanities and natures, subjects and territories – marginalizes epistemologies that conceive of the world as a network of relations and reciprocities. Three overlapping but analytically distinct dimensions of coloniality operate in this field: the coloniality of power (Quijano 2000), which organizes territorial control and labor extraction along racial hierarchies; the coloniality of knowledge (Mignolo 2017), which delegitimizes non-Western epistemologies as valid scientific inputs; and the coloniality of being (Maldonado-Torres 2007), which renders certain lives dispensable. Together, these constitute the structural architecture within which conservation science and policy are produced. Under the lens of Political Ethnobiology, biodiversity is understood not as a set of manageable species, but as a fabric of relations between humans and non-humans, sustained by pluriversal ontologies (Castro 1996; Kopenawa and Albert 2015). This vision of a living and pulsing world is clearly presented in the words of the Yanomami shaman and leader, Davi Kopenawa: "The forest is alive. It will only die if the white people insist on destroying it" (Kopenawa and Albert 2015). The denial of these pluriverses constitutes one of the most persistent forms of colonial violence (Escobar 2018). Thus, the problem is not merely an "environmental crisis," but the hegemony of a "one-world world"- a world that takes itself to be unique, universal, and authorized to occupy and erase other worlds through extractivism and conservation that treat Indigenous territories as "nature" or "resources" (Blaser and la Cadena 2018).

In the field of conservation, colonial logic materializes in "fortress conservation" practices, which expel Indigenous peoples and local communities from their territories in the name of the unconditional preservation of nature (Adams and Hutton 2007; Parry et al. 2025). Emblematic cases, such as that of the Batwa in the Kahuzi-Biega National Park in Congo, reveal this dynamic: in the 1970s, approximately 6,000 Indigenous Batwa were expelled from their ancestral lands for the creation of the park without receiving any form of compensation (O'Leary Simpson et al. 2025). More recently, even as the park has opened negotiations with Batwa representatives, the structural asymmetry of power – with the State and international conservation organizations controlling resources and legitimacy – continues to reproduce colonial dynamics under the guise of "participatory management" (O'Leary Simpson et al. 2025). Similar situations are repeated in Indigenous communities across the tropical forests of Latin America, highlighting how exclusionary conservation operates as a continuation of the colonial project (Büscher and Fletcher 2020). It is estimated that about 80% of the planet's protected areas were created without consulting Indigenous peoples and local communities, representing a violation of

traditional rights and demonstrating the inability of the dominant paradigm to promote justice and plurality (Tauli-Corpuz et al. 2020). Violations occur not only through the establishment of protected areas but across various other conservation strategies, moving beyond a "biodiversity crisis" and continuing to witness an old, yet renewed, process of ethnocide (Soldati and Almada 2024).

With this perspective, this paper makes four original contributions to the literature at the intersection of ethnobiology, political ecology, and decolonial studies. First, it explicitly articulates Political Ethnobiology as a disciplinary and political stance within the field of ethnobiology, distinct from existing critical frameworks by its commitment to territorial accountability and community co-protagonism. Second, it operationalizes decolonial conservation through four actionable pillars that bridge theory and institutional practice (see Table 1 and Conclusions). Third, it integrates Southern feminist perspectives and intersectionality into the ethnobiology-conservation nexus – an analytical angle largely absent from existing reviews in the field. Fourth, it introduces a systematic critique of academic publishing monopolization as a structural dimension of epistemic coloniality, an underexplored theme within ethnobiological literature. Together, these contributions aim not merely to synthesize existing debates, but to advance a coherent and actionable framework for transforming conservation practice.

By positioning Political Ethnobiology as a critical field, we propose a science that assumes the decolonization of knowledge and conservation as a primary task, repositioning IPLCs as epistemological and political subjects. This perspective roots territorial and collective knowledge as an ecological foundation, clearing the way for truly situated and plural alternatives (Acosta 2019; Escobar 2018). In this context, we understand decolonial conservation as a constituent of a critical approach that breaks with the Global North's legacy of environmental management, proposing the recognition of the knowledge, practices, and cosmologies of the peoples of the Global South as legitimate foundations to produce ecological futures and just societies (Escobar 2018; Santos 2019). Unlike conventional strategies based on logics of territorial and epistemic exclusion, decolonial conservation affirms the right to autonomy, participation, and self-determination of peoples, recognizing that ecosystems and cultures are deeply interdependent (Krenak 2018; Moore 2015; Soldati and Almada 2024). This perspective claims alternatives to coloniality, which has historically transformed nature and knowledge into objects of tutelage or extraction (Césaire 1978; Ferdinand 2022) and inserts socio-environmental justice as the central axis of the conservation debate.

Given this panorama, we propose – here – a critical reflection for profound changes in the hegemonic ways of conceiving and practicing nature conservation, grounded in the principles of Decolonial Conservation and Political Ethnobiology. By problematizing the persistence of colonial logics in the management of territories and knowledge, we argue that overcoming the socio-environmental crisis requires the reappropriation of conservation processes by the peoples and traditional communities themselves, through the valorization of their epistemologies, territorial practices, and proposals for ecological justice (Escobar 2018; Santos 2019; Soldati and Almada 2024). Thus, we aims to demonstrate that decolonial conservation emerges not only as a critique of exclusionary hegemonic practices, but as a call for the production of emancipatory alternatives – politically rooted and plural – where relations between humans and non-humans are reconstructed from networks of reciprocity, autonomy, and territorial dignity (Acosta 2019; Büscher and Fletcher, 2020; Moore 2015; Krenak 2018). We propose, therefore, to understand and practice conservation from the territories of the Global South, shifting the epistemic and political axis from tutelage to the co-protagonism of peoples, thus becoming a practice of thinking or "hoping" (esperançar) for another society – a world where many worlds may fit. The argument is organized as follows: we first situate Political Ethnobiology as an engaged epistemological stance; we then examine territorial and pluriversal conceptions of conservation; we discuss people-based conservation models and their limitations; and finally, in a consolidated section, we connect Southern feminisms, the Buen Vivir horizon, and global institutional imperatives, before presenting our concluding framework.

ETHNOBIOLOGY IS POLITICAL

Ethnobiology, as a field dedicated to understanding the manifold interactions between human societies and biodiversity, finds itself at a profound political and epistemological inflection momentum (Albuquerque 2025; Lenta et al. 2025; Zank et al. 2025). As developed by Soldati and Almada (2024), refers to an epistemological stance that explicitly recognizes the political dimensions of knowledge production, the power asymmetries that traverse field research, and the ethical obligation of the researcher toward the communities with whom they work. It is not a subdiscipline but a transformative orientation – a commitment to making ethnobiology accountable to the territories and peoples it studies. Traditionally devoted to the documentation and interpretation of traditional knowledge, the field has expanded its scope to address issues related to epistemic justice, the autonomy of peoples, and the historical asymmetries that

permeate knowledge production. This reconfiguration stems from the recognition that all scientific practice is situated, marked by power relations, and therefore cannot be conceived as neutral (Albuquerque et al. 2024; Soldati and Almada 2024). In the face of current socio-environmental crises, the affirmation of a Political Ethnobiology – an engaged science capable of not only observing but of being fundamentally critical and active – has become imperative.

This necessity imposes itself with (particular) force in the territories of the Global South, where scientific practices still bear the marks of epistemic colonialism. In numerous research contexts, asymmetries persist between those who formulate the questions and those who are called upon to answer them. The university, as a research entity, frequently utilizes communities as sources of knowledge, explaining concepts already experienced by them without providing meaningful feedback, recognition, or a redistribution of power. In this scenario, the concept of Action Ethnobiology (Armstrong and McAlvay 2019) offers a fundamental ethical perspective: it proposes a participatory science engaged with territorial struggles, self-determination, and the sovereignty of peoples.

By assuming a social, ethical, and scientific commitment, Political Ethnobiology problematizes the persistence of colonial practices in the production of scientific knowledge, especially those associated with the access, use, and economic exploitation of traditional knowledge linked to biodiversity. Although international instruments, such as the Convention on Biological Diversity and the Nagoya Protocol, establish safeguards against the misappropriation of this knowledge, practices of access without prior informed consent and without the fair and equitable sharing of benefits remain persistent in academia, particularly in the field of medicinal plants (Pimenta and Moura 2010). Under narratives of innovation, open science, and sustainable development, such dynamics continue to convert collective biocultural heritage into economic assets, often dissociated from the material and political recognition of the communities that maintain them. This process expresses contemporary and refined forms of coloniality, in which biodiversity is commodified while the peoples and communities who depend on it remain invisible and progressively vulnerable due to the intensification of the exploitation of resources intrinsically linked to their existence and ways of life (Parry et al. 2025).

In this context, Armstrong and McAlvay (2021) propose a "sixth phase" for Ethnobiology, marked by the challenge of decolonizing institutions, projects, and researchers. This new stage represents more than a theoretical evolution; it constitutes a paradigm shift. Decolonizing, in this sense, is not merely studying local knowledge, but revising the structures that sustain scientific practice itself: who defines the questions, who holds the resources, who is recognized as an author, and who benefits from the results. This inflection converges with the proposal of Soldati and Almada (2024), who outline an Ethnobiology committed to ecological justice and epistemic equity, capable of articulating knowledge production with agendas of social and environmental transformation.

The Coloniality of Academic Publishing

A dimension of epistemic coloniality that ethnobiology must urgently confront is the structural monopolization of scientific publishing by institutions and journals concentrated in the Global North. The high-impact academic publication system – organized around indexed journals, impact factors, and article processing charges (APCs) – functions as a gatekeeping mechanism that systematically disadvantages researchers from the Global South, and especially Indigenous researchers and activists, from participating in the legitimate production of scientific knowledge (Zank et al. 2025; Albuquerque 2025).

Indigenous researchers face multiple and compounding barriers: linguistic (dominant journals publish almost exclusively in English); economic (APCs can reach thousands of dollars, inaccessible without institutional support); epistemological (the "dictatorship of method" – Reis 2022 – privileges quantitative, hypothesis-driven knowledge formats over oral, relational, and place-based forms of knowing); and institutional (research credentials are granted by universities that themselves reproduce colonial logics). However, the critique should not target the act of publishing, translating, or systematizing, processes that can, in many contexts, grant visibility to political struggles and safeguard knowledge threatened by erasure. The heart of the issue lies in the linguistic and methodological hegemony that validates these voices only when filtered through the Global North's scrutiny and, above all, in the exclusion of research subjects from decision-making spheres. This structure means that knowledge produced in and about territories of the Global South is largely controlled, interpreted, and profited from by researchers based elsewhere – a process that Mignolo (2017) identifies as the 'coloniality of knowledge' in its most institutionalized form.

For ethnobiology, this has direct methodological implications. The field cannot claim to be decolonizing knowledge while reproducing a structure of knowledge expropriation or offering simplistic solutions that uniformize the complexity of human communities into a single object. In this sense, the pathways forward include reflections on these issues: the active construction of South-South publishing networks as a political alternative, while remaining vigilant to ensure

they do not internally replicate the very hierarchies they critique; knowledge repositories that account for the internal disputes and conflicts within communities, which must not be treated as monolithic blocks or unison voices; the recognition of co-authorship as an ethical dialogue that respects the leaders' desire for recognition, understanding that not every collaboration fits the academic authorship model and that other forms of accountability may be more urgent than a name on a paper; and the evaluation of researchers based on criteria that include territorial impact and community accountability (Carroll et al. 2020; McAlvay et al. 2019).

However, it is essential to recognize that these pathways do not constitute ready-made solutions, nor are they free of contradictions. South-South cooperation networks, while vital for breaking the hegemony of the Global North axis, are not automatically less hierarchical and can, in the absence of constant critical vigilance, reproduce new forms of internal inequality. Similarly, the management of community-controlled repositories requires deep reflection on governance and representation: questions regarding who decides what is shared, how to protect sensitive knowledge from unauthorized circulation, and how to prevent management from silencing the plurality of local voices in favor of a monolithic representation are central methodological challenges. These proposals function, therefore, as initial mechanisms for emancipation and the valorization of situated research, aiming to mitigate the hegemonic role of traditional scientific conduct and create openings for the protagonism of territories, without claiming to be universal formulas that erase the complexities and conflicts inherent to these processes.

Based on these reflections, we can synthesize a central thesis: ethnobiological knowledge is only legitimate when it is emancipatory and not subservient to extraction. Thus, an Ethnobiology that does not contribute to the strengthening of Indigenous peoples, local communities, and their territories risks reproducing the same colonial logics it claims to combat, leading to the exhaustion of the foundational resources of its own knowledge production. However, 'good intentions' are not enough (Reo 2019); it requires an ethnobiology rooted in the territory, which recognizes that decolonizing is not a ready-made formula, but a context-dependent process. Consequently, it is inevitable to conclude that Ethnobiology is, in itself, political – rather than an academic fad – presenting itself as a response to the urgencies of the present time: an ethical summons to responsibility in the face of the environmental crisis and the crisis of meaning within science itself, and consequently, a return to its epistemological origins. Assuming this stance does not mean renouncing scientific rigor but understanding that rigor and responsibility are inseparable dimensions of doing science. Political Ethnobiology, therefore, proposes a situated, reflexive science committed to epistemic justice, aware of the asymmetries that traverse it and willing to confront them in the formulation of questions, the definition of what counts as knowledge, and the distribution of research benefits. Only through this path can the field fulfill its original promise: to value, protect, and co-produce the knowledge that sustains life in times of environmental destruction and epistemic injustice.

TERRITORIES AND THE PLURIVERSES OF CONSERVATION

In recent decades, fields within ecology have turned to a political perspective as a foundation for advancing discussions on the unfolding of socio-environmental conflicts (Alier 2007). This epistemic turn inaugurates a political understanding of ecology as a field of disputed meanings, in which conservation, development, and socio-environmental justice are arenas of power and negotiation (Escobar 1998; Fricker 2007). Political ecology adopts a critical perspective that recognizes human relations as an active part of ecosystems, attempting to remedy the rift between society and nature that preceded classical ecological studies, in addition to confronting the conflict between economic logics and ecological logic – the latter of which values interdependence and reciprocity among living beings (Soldati and Almada 2024). Ecological conflicts go beyond the dispute for resources; they reflect the crisis of a colonizing rationality based on the domination of nature (Leff 2003).

At the center of this confrontation lie two fundamentally incommensurable cosmologies. The first is the modern economic rationality that reduces nature to an input exploitable for profit – what Blaser (2013) calls a 'political ontology' of resource management, grounded in a Cartesian separation between human subjects and natural objects. The second is what Escobar (2018) terms 'relational worlds': ontologies in which humans and non-humans are not separate entities but constitutive elements of a common fabric of life, sustained by reciprocity, obligation, and belonging. These relational worlds are not pre-modern curiosities but sophisticated and ecologically effective frameworks for territorial management, as evidenced by millennia of Indigenous stewardship of biodiversity-rich territories (IPBES 2019).

Within ethnobiology, this contrast maps directly onto the distinction between biocultural approaches – which recognize the co-evolution of biological and cultural diversity – and extractivist research models that treat Indigenous knowledge as data to be harvested.

Castro's (1996) Amerindian perspectivism provides a particularly powerful theoretical resource here: in the perspectival ontologies of many Amazonian peoples, 'nature' and 'culture' are not separate domains but perspectival positions – what Western science sees as a resource, the non-human being may experience as a person, a relative, a community member. To reduce this cosmological architecture to 'traditional ecological knowledge' amenable to conservation databases is itself an act of epistemic violence.

Academic and institutional recognition of diverse epistemologies remains limited, perpetuating epistemic and ethical conflicts – a central issue in the struggle for epistemic justice and debates regarding the Rights of Nature (Fricker 2007; Santos 2019). This scenario contrasts with human cultures that, by interacting with and transforming dynamic ecosystems, challenge colonial ideals of conservation. Furthermore, such conflicts evidence that the debate on the Rights of Nature (Zahedi and Gudynas 2008; Gudynas 2011) and Epistemologies of the Global South (Medina 2013) is inseparable from the critique of the coloniality of knowledge and being (Quijano 2000; Maldonado-Torres 2007).

Coloniality permeates current ecological thought, as postulated by Lourenço (2019) when criticizing anthropocentrism. The denial of dignity to Nature maintains an anthropocentrism that feeds and creates conflicts essential for the perpetuation of the socio-environmental misery required to sustain current modes of relationships and consumption, generating a vortex of vulnerability. This spiral reproduces what Foster et al. (2010) call the unequal metabolism between the center and the periphery, wherein countries of the North export degradation and import resources from the Global South. Such practices become evident in economic analyses revealing a persistent pattern of exploitation by the Global North, which purchases natural products from Latin America at values up to five times lower than the prices of the products these countries import (Infante-Amate et al. 2022).

Some communities in the Global South, such as Indigenous peoples and Quilombola populations (maroon descendant community), express another form of relationship with the territory, marked by oral tradition, collectivity, and reciprocity. This conception breaks with the colonial logic of property and reverses the hierarchy imposed by modern thought, understanding the territory as an intricate part of the social fabric of these people (Santos 2023). Antônio Bispo dos Santos, one of Brazil's most important Afro-descendant counter-colonial thinkers, conceives of "organic knowledge" – knowledge focused on being and life, rooted in the land, ancestry, experience, and oral traditions of traditional peoples – in contrast to "synthetic knowledge," linked to Euro-Christian/colonial logic, development, commodification, and the separation between human and nature (Santos 2023). On the horizon of the pluriverse, Indigenous territories and those of local communities do not appear as "conservation areas" to be managed by the State or NGOs, but as societal projects in dispute with colonial modernity.

In Latin America, there are important advances in the valorization of territories and nature, such as the constitutional recognition of Pachamama in Ecuador (Ecuador 2008; arts. 71 - 74). The Ecuadorian case is particularly instructive, however, not only as an achievement but as a site of contradiction: even after the constitutional recognition of Nature's rights in 2008, the Ecuadorian government has authorized large-scale extractive projects in Amazonian Indigenous territories – demonstrating that legal advances and material decolonization follow different temporalities and require different political struggles (Gudynas 2011; Acosta 2019). In Colombia, Afro-descendant community councils (Consejos Comunitarios) established under Law 70 of 1993 represent a significant experiment in autonomous territorial governance, enabling Black communities to exercise collective territorial rights and resist encroachment from agribusiness and mining. Yet these councils also operate under persistent pressure from armed actors and extractive industries that the Colombian state has often failed to counteract.

In Brazil, the 1988 Constitution represented a political milestone by recognizing Indigenous peoples and Quilombolas as subjects of rights (Lourenço 2019), subsequently reaffirmed by the Kari-Oca Declaration (Declaração da Aldeia Kari-Oca e Carta da Terra dos Povos Indígenas, 1992) – the first international manifesto of Indigenous peoples regarding the environment (Gudynas, 2011) – and by differentiated educational policies, such as the National Plan for Indigenous School Education (PNEEI) (Brasil 2019) and the National Policy for Quilombola School Education (PNEEQ) (Brasil 2024). However, these policies still operate under the civilizational paradigm of Eurocentric formal education, which impedes their full emancipation (Freire 1967). In Bolivia, the Plurinational State's constitutional incorporation of Buen Vivir and the Rights of Mother Earth (Pachamama) – inspired by Andean Quechua and Aymara cosmologies – represents the most institutionally ambitious attempt at decolonial governance in the region. Yet tensions between the Buen Vivir framework and the extractivist development model pursued by successive Bolivian governments reveal the structural limits of decolonial constitutionalism when it confronts the material imperatives of a resource-dependent economy (Gudynas 2011; Acosta 2019). These cases illustrate a recurring dynamic: legal recognition of territorial rights

and non-Western ontologies advances unevenly and is consistently contested by economic interests operating through colonial institutional structures. Understanding this dynamic is central to what we call decolonial conservation – and it is this understanding that the next section translates into concrete conservation governance models.

PEOPLE-BASED CONSERVATION AS A PATH AGAINST COLONIALISM

In the Brazilian Amazon, co-participatory governance models demonstrate that sustainable-use protected areas present better economic indices and access to basic infrastructure (Campos-Silva et al. 2021; Den Braber et al. 2024). However, we understand that centrality must be placed on the titling and autonomy of traditional territories. Indigenous lands in this region reduce deforestation rates more significantly when compared to other types of protected areas, in addition to maintaining higher carbon stocks (Soares-Filho et al. 2010; Pfaff et al. 2015; Prioli-Duarte et al. 2023; Lima et al. 2024). Indigenous peoples and local communities are central to conservation (IPBES 2019), and their territories are incorporated into the Kunming-Montreal Global Biodiversity Framework under the term "other effective area-based conservation measures" (OECMs). Nevertheless, these effects depend on the extent to which communities and their distinct social actors hold rights and responsibilities over the territories, with more positive effects observed when Indigenous peoples and local communities possess total autonomy or participate equitably in decisions regarding the territory's future (Dawson et al. 2024). These evidences reinforce that the path to confronting colonial conservation practices depends on the capacity of communities to exercise rights over their territories as "forest citizens" (Parry et al. 2025).

Despite advances, it is necessary to expand the theoretical framework toward a more critical and political understanding of the realities of Indigenous populations and local communities in the face of conservationist actions (Fisher et al. 2022). This requires rethinking the people-nature relationship, reducing the focus on forest disturbances and strictly economic criteria, and incorporating the agency of humans and non-humans (Krenak and Carelli 2023). The main challenge lies in "liberal conservation," whose economic bias seeks to simultaneously maximize conservation and human well-being but neglects the debate on the just distribution of environmental costs and benefits (McShane et al. 2011). The installation of wind farms in the Caatinga and on the lands of traditional communities evidences these contradictions: despite threatening biodiversity and local well-being, such projects are promoted as "green public policies" (Klingler et al. 2024; Neri et al. 2019; Oliveira et al. 2025). Presented as a "green" solution to the climate crisis, carbon credits have often been implemented over the territories of Indigenous peoples and local communities without the recognition of their collective rights and governance systems. This results in exclusion from decision-making processes, disregard for free, prior, and informed consent (FPIC), forced evictions, and the loss of access to land and the resources upon which they depend (Redvers et al. 2019). The declared objective of promoting a "green economy" ends up, in practice, serving hegemonic economic interests; there is no equitable distribution of implementation benefits among different peoples, thereby perpetuating environmental injustices and sacrificing the ways of life of communities to achieve a supposed sustainability (e.g., Amâncio et al. 2024).

Another significant challenge for the transformation of conservation theories and practices is the lack of public policies that effectively support changes in the field. Although global instruments increasingly open space and recognition for the participation of Indigenous peoples and local communities (IPBES 2019), the urgency to protect remaining ecosystem fragments hinders deep reflections and multidimensional evaluations (ecological, economic, cultural, and individual) of conservationist interventions. While the international community demands that countries comply with, for example, the CBD's 30x30 initiative (Target 3 of the Kunming-Montreal Global Biodiversity Framework), the actual ecological and social impacts of these areas are widely criticized (Adams and Hutton 2007). This urgency to meet global demands results in the creation of protected areas only on paper (i.e., "paper parks") and the overriding of legal mechanisms for consultation and popular participation, preventing local populations from fully exercising their autonomy and territorial management. A striking example of this is found in the Caatinga, with the Tatu-bola Wildlife Refuge. Created during the 2014 World Cup following a scientific-conservationist movement demanding urgency (Melo et al. 2014), the reserve is today the stage for intense political-economic disputes that place the local population in conflict with the unit's management (Amâncio et al. 2024). Although policies downgrading protected area categories to more permissive levels of use are viewed with reservation by the conservation field (Bernard et al. 2014), perhaps they represent a necessary starting point for conservation to re-evaluate its public policies. This difficult debate may be the key to granting greater autonomy to communities within their own territories.

BODIES, TERRITORIES, AND THE GLOBAL AGENDA: SOUTHERN FEMINISMS, BUEN VIVIR, AND THE DECOLONIAL IMPERATIVE

The historical structuring of society aims at the homogenization of human bodies, idealizing the subject who possesses power, access, and decision-making authority (Foucault 2020). This structure favors such subjects while disregarding those who do not fit into this standardization, pushing them to the margins so they remain unseen, unheard, and unaware of such decisions and their impacts (Hollanda 2023; Ferdinand 2022). It is within this framework that our reflection – in this article – intervenes, by highlighting how women, Black populations, and peripheral groups remain systematically excluded from autonomy over nature conservation, despite being intrinsically linked to nature and being the most directly affected by contemporary socio-environmental crises. Hence, fields such as Political Ecology/Ethnobiology are observed making direct associations between environmental crises and their consequences for Black and peripheral populations (Alier 2007). However, there is still a lack of contemplation regarding the woman's body in this discussion, especially that of the Black woman (Gonzalez 2023; Nascimento 2023).

At the intersection of these exclusions, Mayan-Xinka feminist and community healer Lorena Cabnal (Guatemala) has developed the concept of community feminism rooted in the defense of the body-territory (cuerpo-territorio): for Cabnal, the colonization of the body of the Indigenous woman and the colonization of the ancestral territory are not metaphorically linked – they are literally the same process of dispossession, exercised through the same colonial-patriarchal power structures (Cabnal, 2010; Zaragocin & Caretta, 2021). This framework, which emerges from practice and struggle rather than from the academy, offers ethnobiology a profoundly relational and embodied understanding of territorial conflicts that no amount of desk theory can replicate.

Together with (but not alongside) the normative subject are women, performing their essentially domestic roles as mothers, wives, daughters, and caregivers (Hollanda 2023). Initially, white upper-class women associated with the colonial period rebelled against this exclusionary societal structure through their contributions, along with Black women, to South American and Caribbean aquilombamento (maroonage) processes (Ferdinand 2022), extending to strategic associations with communist political parties and the progressive Catholic Church (Hollanda 2023). Without properly fitting into these spaces or aligning with European or North American feminisms, women of the Global South strengthened themselves through art, music, and literature (Hollanda 2023). Today, they are strongly intertwined with Afro-Latin American epistemologies and bodies, totally inverting the colonialist and homogenizing logic (Gonzalez 2018; Hollanda 2020). Among existing feminisms, the one addressed here (Hooks, 2015) departs synergistically from decolonial practices, making space for and extending a body previously objectified in the private sphere, now fighting to encompass Institutions, Science, Culture, and numerous public instances (Slobodian et al. 2021; Saffioti 2023).

Nina Pacari, Kichwa jurist and former Ecuadorian Foreign Minister, offers another crucial voice from within Indigenous legal epistemology. Her work on the Rights of Nature demonstrates how Indigenous women can operate simultaneously within and against state institutions, advancing decolonial legal frameworks from positions of institutional power — a model that political ethnobiology must take seriously as evidence that decolonial transformation is not limited to extra-institutional resistance but can also occur through strategic engagement with legal structures (Gudynas 2011).

The struggle for gender equality in the Global South intertwines with struggles beyond equal wages, political representation, or suffrage (Gonzalez 2018). The struggle below the imaginary economic line takes place through the exploitation of women's vulnerability, the devaluation of lived experience as epistemology, the body-as-object for tourism and leisure, the discrediting of the working woman, and the solitude of the Black mother and woman (Hooks 2015; Slobodian et al. 2021). Associating this theme with conservation, women – in distinct layers of privilege but nonetheless associated with the environment (Pitanguy 2023) – are distanced from their relationships and lived experiences, depriving them of decision-making roles and relegating them to administrative positions (James et al. 2023), limited to stages of processing, feeding, and selling natural resources, such as in fishing or small-scale agriculture (Di Ciommo and Schiavetti 2012; Ayres et al. 2023). In Ethnobiology, women are still cited less frequently and receive less credit for their work, in addition to facing challenges regarding their professional academic journeys related to data collection (Silva et al. 2019). To decolonize Conservation, it is necessary to think about the structure, beyond methodologies that encompass women and their effective participation as direct agents of transformation (Clancy et al. 2014).

The lack of female representation and leadership in politics, science, associations, and unions reproduces colonial practices regarding the use of natural resources, as well as a patriarchal and Eurocentric vision of decision-making spaces and power (Foucault

2020). The vision of "Mother Earth," well-articulated by Ferdinand (2022), becomes obsolete when it does not include the voice and agency of the Black Latin American and Caribbean woman (Leal 2020) in Biodiversity Conservation (Jones and Solomon 2019). What is claimed here is not equality – which refers us to repetition – but the plural of their individualities in the restructuring of spaces and, in an expansive and optimistic mode, of (Mother) Earth (Ferdinand 2022).

The Global Institutional Dimensions: Decolonize or Perish

The contemporary biodiversity crisis reveals not only ecological vulnerabilities but also the historical inequalities that persist in relations between the Global North and South. Impacts on biodiversity are unevenly distributed, perpetuating and intensifying disparities between countries, classes, genders, races, and ethnicities (Song et al. 2024). These inequalities are the result of current policies and have deep roots in the structure of international law, which bears the mark of colonial history (Islam et al. 2024). As demonstrated by Atapattu (2021), international law emerged from the European "civilizing mission," responsible for devastating ecosystems and marginalizing Indigenous societies in Africa, Asia, and Latin America. The concept of coloniality is central to understanding this process: it is a pattern of power that survives the colonial era, organizing structures of labor, knowledge, authority, and social relations according to the logic of the world capitalist market and the idea of race (Maldonado-Torres 2007).

In this context, decolonizing is more than an ethical imperative; it represents a civilizational urgency in the face of the environmental crisis and global injustices. The persistence of coloniality in environmental legal institutions exemplifies how access to resources, rights, and recognition remains unequal, requiring historical reparations and profound reforms. Various alternatives emerge as solutions for climate crisis mitigation, such as REDD+ (Reducing Emissions from Deforestation and Forest Degradation); however, the process of the financialization of nature causes negative impacts on territories, contrary to what is proposed (Alkmin 2023). To confront these injustices, it is fundamental to transfer decision-making power regarding biodiversity conservation funds and environmental governance processes to the directly affected territories, as proposed by Stoll (2025). The Global South must be a protagonist not only in execution but in the control of resources and decisions, integrating climate justice and democracy into its agenda.

The ILO Convention 169 (1989) represents a fundamental milestone by guaranteeing the right of traditional peoples and communities to free, prior, and informed consultation regarding projects that impact their territories. However, in practice, its implementation reveals a significant gap between the legal text and institutional dynamics. The systematic denial of this right manifests through flawed, superficial, or merely informative consultation processes, the results of which are frequently decided even before dialogue occurs (Atapattu 2021). Such violation is aggravated by the appropriation of traditional knowledge disconnected from respect for the ways of life of these communities, converting knowledge into a marketable resource while promoting the false promise of progress and quality of life. Behind this rhetoric of inclusion, a developmentalist model is perpetuated that subordinates local autonomy to the logic of major political and economic interests, reinforcing colonial structures that deny the self-determination and centrality of these peoples (Santos 2015).

Colonialism is not limited to physical territory: it also inhabits academia. Western science, historically built upon the denial and appropriation of other beings and knowledges, still defines what is recognized as valid knowledge. The so-called "dictatorship of method" imposes Eurocentric, racist, ableist, misogynistic, LGBTQ-phobic, and patriarchal metrics, marginalizing Indigenous and popular epistemologies and transforming knowledge into a commodity (Reis 2022). Decolonizing academia means recognizing and legitimizing the various other forms of producing and transmitting knowledge – oral tradition, spirituality, community practice, and sensitive observation. It implies recognizing that epistemic diversity is an essential condition for facing complex issues, such as the climate crisis (Reis 2022). Furthermore, expanding plurality in knowledge production constitutes a valid and necessary alternative for more assertive, diverse, inclusive, and equitable conservation policies. The scientific mechanism, when oriented by horizontal dialogue and mutual respect, becomes fundamental in the co-construction processes of these policies. In this scenario, scientists – especially ethnobiologists – must act as instruments of connection, functioning as bridges between communities, decision-makers, and academic institutions. This posture of mediation and collaboration is fundamental to ensuring that different knowledges are recognized, valued, and incorporated into conservation strategies. As McAlvay et al. (2021) state, researchers committed to social justice must question the colonial legacy present in their fields of study and adopt a posture of allyship: not speaking for communities, but acting alongside them, supporting their agendas, respecting their timing, and recognizing their voices as central.

It is incumbent upon researchers and educational institutions to break with academic extractivism and utilitarian practices that fuel mistrust and make tra-

ditional peoples and communities vulnerable. It is indispensable to rethink historical postures, questioning to whom the produced knowledge belongs and who actually benefits from it, promoting a science that is dialogical, ethical, and rooted in local contexts (McAlvay et al. 2021). In this sense, articulating with the international call present in the United Nations Declaration on the Rights of Indigenous Peoples (2007), the repatriation/rematriation of biocultural heritage is a fundamental element to be considered in research, where ethnobiologists occupy a strategic and political role: defending the physical return of these resources as a concrete step is fundamental to confronting the colonial legacy instituted in collections and strengthening the sovereignty of peoples over their territories, knowledge, and biocultural heritage (McAlvay et al. 2021).

For governments, the duty is imposed to guarantee the titling and effective protection of territories, recognizing that the right to land is central to the autonomy and permanence of traditional peoples. Titling is a fundamental step to ensure territorial rights, but it is not sufficient in the face of challenges regarding land reconcentration and territorial fragmentation, which favor the expansion of external interests and undermine emancipatory processes (Moraes & Caetano 2024). As warned by De Sousa et al. (2025), titling without inclusive and continuous support policies does not achieve full agrarian reform; governments must foster policies that effectively promote territorial and social justice.

For legal institutions, it is necessary to expand the recognition of different ways of living and managing the land, overcoming colonial paradigms and advancing toward the full recognition of the Rights of Nature as an autonomous, non-human entity worthy of its own rights. Such a perspective, defended by Gudynas (2011), opens the way for more just, plural, and counter-colonial management and development alternatives, capable of valuing the diversity of cosmovisions and socioecological practices that coexist in the territories.

Finally, for society, it is necessary to strengthen popular organization, the articulation between diverse knowledges, and active support for territorial struggles, building bridges between experiences and promoting the necessary pressure for structural changes (Santos 2023). The wisdom of Indigenous peoples reminds us that life is a vast web, woven from the relationships between species, knowledges, and territories: "I did not learn to think about forest things by fixing my eyes on skins of paper. I saw them for real, by drinking the breath of life of my ancients [...]" (Kopenawa and Albert 2015, p.66).

Table 1. Four pillars for a Political Ethnobiology and people-based Decolonial Conservation.

Pillar	***Central Concept***	***Academia***	***Managers***	***Principles***
(1) Epistemic Justice and Co-authorship of Knowledge	Knowledge is co-produced from territories with reciprocity and autonomy; IPLCs are epistemic subjects	Ethical co-authorship as dialogue: Move beyond "names on papers" to ensure co-authorship respects community desires and reflects genuine intellectual partnership. Alternative Visibility: Prioritize publishing that grants visibility to political struggles and safeguards knowledge threatened by erasure. Accountability-driven evaluation: Shift focus from peer-review satisfaction to methodological and ethical accountability to the communities involved.	IPLC representation in environmental councils; Participatory territorial co-management programs	Co-production of knowledge; epistemological horizontality; cognitive reciprocity.
(2) People-Based Conservation and Pluriverses	Conservation stems from local relations; Pluriverses replace the colonial notion of nature.	Confronting the "Dictatorship of Method": Challenge the privilege of quantitative, hypothesis-driven formats over oral, relational, and place-based ways of knowing. Linguistic Pluralism: Actively resist the linguistic barrier of English-only dominance by supporting multilingual dissemination and translation. Intercultural Curricula: Decolonize curricula to include Indigenous, quilombola, and feminist cosmologies as central (not peripheral) knowledge.	Replace "fortress conservation" with of co-management; integrate peoples rights into conservation policy.	Ontological plurality; territorial co-management; recognition of local cosmopolitics; relational diversity of life.
(3) Ethics of *Buen Vivir* and Socioecological Reciprocity	Interdependence of humans and non-humans; collective Buen Vivir over financialization	Extra-Academic Repositories: Develop and support community-controlled knowledge repositories that operate outside of indexed academic infrastructures. Non-Extractive Research: Ensure research is emancipatory, refusing to treat territories as mere data-extraction sites for high-impact journals. Interdisciplinary Restoration: Foster research on biocultural restoration where Buen Vivir (not financial profit) is the primary indicator of success.	Indicators of reciprocity in conservation plans; Value agroecological and traditional management	care and biocultural restoration; ethics of reciprocity; primacy of life over profit.
(4) Institutional Transformation and Epistemic Justice	Decolonize science and conservation, shift enunciation axis from the Global North to the South.	South-South Publishing Networks: Actively construct and sustain publishing networks that bypass the gatekeeping of North-centered journals and APC costs. Metric Reform: Reformulate institutional evaluation criteria to prioritize territorial impact and community benefits over citation counts and impact factors. Decolonizing Credentialing: Challenge universities to recognize research credentials and expertise that emerge from territorial practice rather than colonial institutional logic.	biocultural conservation in Convention on Biological Diversity (CBD); targets; policies recognizing Rights of Nature.	Epistemic pluralism; cognitive redistribution; territorial and cultural justice; cooperation between worlds and knowledges.

CONCLUSIONS

In face of the historical and contemporary challenges imposed by modernity/colonialism, the construction of decolonial alternatives for conservation requires the centrality of people, worldviews, and territories. Combating socio-environmental injustices requires a rupture with exclusionary models and the articulation of plural epistemologies, territorial autonomy, and effectively participatory consultation processes (Gudynas 2011; De Sousa et al. 2025; Reis 2022). Such a process demands more than piecemeal adjustments; it implies redefining institutional, academic, and legal structures, calling upon women, researchers, and society to an ethical commitment to the emancipatory co-construction of conservation—towards a biodiversity that serves as the path to the autonomy of traditional territories.

In light of the reflections and provocations raised here, we propose four fundamental pillars for a political ethnobiology and people-based decolonial conservation, which synthesize concrete and integrated recommendations: 1) Epistemic justice and co-authorship of knowledge, 2) People-based conservation and pluriverses, 3) Ethics of Buen Vivir and socioecological reciprocity, and 4) Institutional transformation and epistemic justice (Table 1). By provoking reflection and action regarding these pillars, we invite a move beyond the extractivist, utilitarian, and colonial models that persist in the fields of ecology and ethnobiology. Decolonial conservation is not merely a theoretical possibility; it is a practical urgency. The future of environmental policies will depend on the capacity to recognize diversity, promote justice, guarantee rights, and involve the voices and experiences of communities as protagonists of their own destinies (McAlvay et al. 2021; Santos 2023). The challenge is set: transforming structures and practices means affirming that the future will be decolonial, or it will not be.

It is essential, however, that this framework be received not as a triumphalist agenda but as a working hypothesis laden with tensions. Political Ethnobiology operates within – not outside of – the very institutional structures it critiques. Researchers who write about decoloniality from universities in the Global South still occupy positions of epistemic privilege relative to the communities with whom they work; the act of publishing in indexed English-language journals, even with the best intentions, reproduces some of the very dynamics this paper denounces. Good intentions are not sufficient – as Reo (2019) argues, territory-rooted accountability is required. The gap between researchers who write theory from a desk and those who build knowledge by walking territories is not a gap that theoretical sophistication alone can close; it requires structural changes in how researchers are trained, funded, and evaluated.

Emerging models that particularly address this tension include: collective and community co-authorship as a standard ethical requirement (not a courtesy); research funded by and accountable to community organizations rather than exclusively to academic institutions; Indigenous-led territorial monitoring programs that generate knowledge for community use regardless of publication; and South-South academic networks that operate according to criteria of territorial relevance rather than impact factor. The CARE Principles for Indigenous Data Governance (Carroll et al. 2020) offer one institutional framework through which some of these commitments can be operationalized. These are not utopian visions but practices already underway in various territories of the Global South – evidence that decolonial conservation is not merely a theoretical possibility

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DATA AVAILABILITY

This manuscript did not utilize primary data sources. As an opinion paper, it is grounded in the cited literature and a critical-theoretical framework.

CONFLICT OF INTEREST

There are no conflicts of interest to be declared.

CONTRIBUTION STATEMENT

Conceived of the presented idea: RFRC.
Carried out discussion about the argumentations:

RFRC, AABR, JMGM, CAS, CDO, PTM, JAN, MOC, GTS.
Wrote the first draft of the manuscript: RFRC, AABR, JMGM, CAS, CDO, PTM, JAN, MOC, GTS.
Review and final write of the manuscript: RFRC, GTS.

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REFERENCES

Acosta A (2019) **O bem viver: Uma oportunidade para imaginar outros mundos**. Autonomia Literária, São Paulo.

Adams WM, Hutton J (2007) **People, parks and poverty: political ecology and biodiversity conservation**. *Conservation and Society* 5(2):147–183.

Albuquerque UP, Alves RRN, Carmo RFR (2024) **Is there a neocolonial stance in ethnobiology?** *Ethnobiology and Conservation* 13: 06. doi: 10.15451/ec2024-01-13.06-1-4.

Albuquerque UP (2025) **Epistemic bubbles and echo chambers in the progress of science**. *Ethnobiology and Conservation* 14. doi: 10.15451/ec2025-11-14-38-1-19.

Alier JM (2007) **O ecologismo dos pobres: conflitos ambientais e linguagens de valoração**. 2nd ed. Editora Contexto, São Paulo.

Alkmin FM (2023) **Colonialismo climático e financeirização do carbono: Reflexões sobre o REDD+ e a autonomia socioterritorial dos povos indígenas na Amazônia**. *Ambientes: Revista de Geografia e Ecologia Política* 5(2). doi: 10.48075/amb.v5i2.31885.

Amâncio A, Alves A, Portioli J (2024) **Por que agricultores familiares querem o fim de uma das maiores reservas ecológicas da Caatinga. Mongabay Brasil**. [https://brasil.mongabay.com/2024/07/por-que-agricultores-familiares-querem-o-fim-de-uma-das-maiores-reservas-ecologicas-da-caatinga] Accessed 15 July 2024.

Armstrong CG, McAlvay AC (2019) **Introduction to special section on action ethnobiology**. *Journal of Ethnobiology* 39(1):3-13. doi: 10.2993/0278-0771-39.1.3.

Atapattu S (2021) **Global South approaches. In: The Oxford Handbook of International Environmental Law**. Oxford University Press, Oxford.

Ayres AD, Kaigang JDJ, Neres VFH, Da Rocha Brando F (2023) **A interpelação das mulheres indígenas sobre a conservação de seus territórios**. *Habitus* 21(1):34-51. doi: 10.18224/hab.v21i1.13206.

Bernard E, Penna LAO, Araújo E (2014) **Downgrading, downsizing, degazettement, and reclassification of protected areas in Brazil**.*Conservation Biology* 28(4):939-950. doi: 10.1111/cobi.12298.

Blaser M (2013) **Ontological conflicts and the stories of peoples in spite of Europe: Toward a conversation on political ontology**. *Current Anthropology* 54(5):547-568. doi: 10.1086/672270.

Blaser M, de la Cadena M (2018) **Pluriverse: proposals for a world of many worlds.** In: Blaser M, de la Cadena M (eds) A world of many worlds. Duke University Press, Durham, p. 1–22.

Brasil (2019) **Plano Nacional de Educação Escolar Indígena (PNEEI).** Ministério da Educação, Brasília.

Brasil (2024) **Política Nacional de Educação Escolar Quilombola (PNEEQ).** Ministério da Educação, Brasília.

Büscher B, Fletcher R (2020) **The Conservation Revolution: Radical Ideas for Saving Nature Beyond the Anthropocene**. Verso, London.

Cabnal L (2010) **Acercamiento a la construcción de la propuesta de pensamiento epistémico de las mujeres indígenas feministas comunitarias de Abya Yala**. In: Feminismos diversos: el feminismo comunitario. ACSUR-Las Segovias, Madrid, pp. 11-25.

Campos-Silva JV et al. (2021) **Sustainable-use protected areas catalyze enhanced livelihoods in rural Amazonia.** *Proceedings of the National Academy of Sciences* 118(40):e2105480118. doi: 10.1073/pnas.2105480118.

Carroll SR, Garba I, Figueroa-Rodríguez OL, Holbrook J, Lovett R, Materechera S, Parsons M, Raseroka K, Rodriguez-Lonebear D, Rowe R, Sara R, Walker JD, Anderson J, Hudson M (2020) **The CARE Principles for Indigenous Data Governance.** *Data Science Journal* 19(1):43. doi: 10.5334/dsj-2020-043.

Castro EV de (1996) **Os pronomes cosmológicos e o perspectivismo ameríndio.** *Mana: Estudos de Antropologia Social* 2(2):115-144. doi: 10.1590/S0104-93131996000200005.

Césaire A (1978) **Discurso sobre o colonialismo.** Livraria Sá da Costa, Lisboa.

Clancy KBH, Nelson RG, Rutherford JN, Hinde K (2014) **Survey of Academic Field Experiences (SAFE): Trainees Report Harassment and Assault.** *PLoS ONE* 9(7):e102172. doi: 10.1371/journal.pone.0102172.

Dawson NM, Coolsaet B, Bhardwaj A, Booker F, Brown D, Lliso B, Loos J, Martin A, Oliva M, Pascual U, Sherpa P, Worsdel T (2024) **Is it just conservation? A typology of Indigenous peoples' and local communities' roles in conserving biodiversity.** *One Earth* 7:1007-1021. doi: 10.1016/j.oneear.2024.05.001.

De Sousa FCR, De Mattos JLS, Gervais AMD (2025) **Titulação não é reforma agrária: o risco da reconcentração das terras dos assentamentos.** [https://cadernos.aba-agroecologia.org.br/cadernos/article/view/10341] Accessed in January 2026.

Declaração da Aldeia Kari-Oca e Carta da Terra dos Povos Indígenas (1992) **Declaração da Aldeia Kari-Oca e Carta da Terra dos Povos Indígenas**.

Den Braber B et al. (2024) **Socio-economic and environmental trade-offs in Amazonian protected areas and Indigenous territories.** *Nature Ecology & Evolution* 8:1482-1492. doi: 10.1038/s41559-024-02458-w.

Di Ciommo RC, Schiavetti A (2012) **Women participation in the management of a Marine Protected Area in Brazil.** *Ocean & Coastal Management* 62:15-23. doi: 10.1016/j.ocecoaman.2012.02.010.

Domínguez L, Luoma JR (2020) **Decolonising conservation policy: Indigenous land rights and the struggle for environmental justice.** *Land* 9(3):65. doi: 10.3390/land9030065.

Dussel E (1993) **1492: o encobrimento do outro: a origem do mito da modernidade.** Vozes, Petrópolis.

Ecuador (2008) **Constitución de la República del Ecuador.** Asamblea Nacional del Ecuador, Quito.

Escobar A (1998) **Whose knowledge, whose nature? Biodiversity, conservation, and the political ecology of social movements.** *Journal of Political Ecology* 5:53–82.

Escobar A (2018) **Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds.** Duke University Press, Durham.

Ferdinand M (2022) **Uma ecologia decolonial: pensar desde o Caribe.** Ubu Editora, Rio de Janeiro.

Fisher E, Brondizio E, Boyd E (2022) **Critical social science perspectives on transformations to sustainability.** *Current Opinion in Environmental Sustainability* 55:101160. doi: 10.1016/j.cosust.2022.101160.

Foster JB, Clark B, York R (2010) **The Ecological Rift: Capitalism's War on the Earth.** Monthly Review Press, New York.

Foucault M (2020) **História da sexualidade 1: a vontade de saber.** 16th ed. Graal, Rio de Janeiro.

Freire P (1967) **Pedagogia do oprimido.** Paz e Terra, Rio de Janeiro.

Fricker M (2007) **Epistemic Injustice: Power and the Ethics of Knowing.** Oxford University Press, Oxford.

Gonzalez L (2018) **Por um feminismo afro-latino-americano.** Zahar, Rio de Janeiro.

Gonzalez L (2023) **Racismo e sexismo na cultura brasileira.** In: Hollanda HB (Org.) Pensamento Feminista Brasileiro: Formação e contexto. 6th ed. Bazar do Tempo, São Paulo.

Gudynas E (2011) **Buen vivir: Today's tomorrow.** *Development* 54(4):441-447. doi: 10.1057/dev.2011.86.

Hollanda HB (org.) (2020) **Pensamento feminista hoje: perspectivas decoloniais.** 5th ed. Bazar do Tempo, São Paulo.

Hollanda HB (Org.) (2023) **Pensamento Feminista Brasileiro: Formação e contexto.** 6th ed. Bazar do Tempo, São Paulo.

Hooks B (2015) **Mulheres negras: moldando a teoria feminista.** *Revista Brasileira de Ciência Política* 16:193-210. doi: 10.1590/0103-335220151608.

Infante-Amate J, Urrego-Mesa A, Piñero P, Tello E (2022) **The open veins of Latin America: Long-term physical trade flows (1900-2016).** *Global Environmental Change* 76:102579. doi: 10.1016/j.gloenvcha.2022.102579.

IPBES (2019) **Global assessment report on biodiversity and ecosystem services.** Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, Bonn.

Islam FB, Naylor L, Bryan JE, Coker DJ (2024) **Cli-**

mate coloniality and settler colonialism: Adaptation and indigenous futurities. *Political Geography* 103164. doi: 10.1016/j.polgeo.2024.103164.

James R, Fisher JRB, Carlos-Grotjahn C, Boylan MS, Dembereldash B, De Villegas C, Gibbs B, Konia R, Lyons K, Possingham H, Butt N (2023) **Gender bias and inequity holds women back in their conservation careers.** *Frontiers in Environmental Science* 10:1056751. doi: 10.3389/fenvs.2022.1056751.

Jones MS, Solomon J (2019) **Challenges and supports for women conservation leaders.** *Conservation Science and Practice* 1(6):e36. doi: 10.1111/csp2.36.

Klingler M et al. (2024) **Large-scale green grabbing for wind and solar photovoltaic development in Brazil.** *Nature Sustainability* 7:747-757. doi: 10.1038/s41893-024-01346-2.

Kopenawa D, Albert B (2015) **A queda do céu: Palavras de um xamã Yanomami.** Companhia das Letras, São Paulo.

Krenak A (2018) **Ideias para adiar o fim do mundo.** Companhia das Letras, São Paulo.

Krenak A, Carelli R (2023) **Futuro ancestral.** 1st ed. Companhia das Letras, São Paulo.

Leal AC (2020) **Me curo y me armo, estudiando: a dimensão terapêutica y bélica do saber prete e trans.** *Revista PUC-SP* 1(21):64-70.

Leff E (2003) **Racionalidade ambiental: a reapropriação social da natureza.** Civilização Brasileira, Rio de Janeiro.

Lenta CR, Grimaldi PA, Ladio AH (2025) **El futuro de la etnobiología argentina en riesgo.** *Ethnobiology and Conservation* 14. doi: 10.15451/ec2025-09-14.03-1-7.

Lima M et al. (2024) **Transformative pathways for biodiversity conservation in socioecological systems.** *Biological Conservation* 292:110472. doi: 10.1016/j.biocon.2024.110472.

Lourenço DB (2019) **Qual o valor da natureza? Uma introdução à ética ambiental.** Elefante, Rio de Janeiro.

Maldonado-Torres N (2007) **On the coloniality of being, power, and knowledge.** *Cultural Studies* 21(2-3):240-270. doi: 10.1080/09502380601162548.

Martínez-Alier J (2002) **The environmentalism of the poor: a study of ecological conflicts and valuation.** Edward Elgar, Cheltenham.

McAlvay A, Armstrong C, Baker J, Baker J, Elk LB, Bosco S, Hanazaki N, Joseph L, Martínez-Cruz ET, Nesbitt M, Palmer MA, Almeida WCP, Anderson J, Asfaw Z, Borokini IT, Cano-Contreras EJ, Hoyte S, Hudson M, Ladio AH, Odonne G, Peter S, Rashford J, Wall J, Wolverton S, Vandebroek I (2021) **Ethnobiology Phase VI: Decolonizing Institutions, Projects, and Scholarship.** *Journal of Ethnobiology* 41(2):170-191. doi: 10.2993/0278-0771-41.2.170.

McShane TO et al. (2011) **Hard choices: Making trade-offs between biodiversity conservation and human well-being.** *Biological Conservation* 144:966-972. doi: 10.1016/j.biocon.2010.04.038.

Medina J (2013) **The Epistemology of Resistance: Gender and Racial Oppression, Epistemic Injustice, and Resistant Imaginations.** Oxford University Press, Oxford.

Melo FP et al. (2014) **Football and Biodiversity Conservation: FIFA and Brazil Can Still Hit a Green Goal.** *Biotropica* 46:257-259. doi: 10.1111/btp.12114.

Mignolo WD (2017) **Colonialidade: o lado mais escuro da modernidade.** *Revista Brasileira de Ciências Sociais* 32(94):e329402. doi: 10.17666/329402/2017.

Moore JW (2015) **Capitalism in the Web of Life: Ecology and the Accumulation of Capital**. Verso, London.

Moraes MD, Caetano da Silva A (2024) **Reforma agrária e titulação de terras: desafios legais, políticos e sociais.** *Retratos de Assentamentos* 27(2):130-147. doi: 10.17666/329402/2017.

Nascimento B (2023) **A mulher negra no mercado de trabalho.** In: Hollanda HB (Org.) Pensamento Feminista Brasileiro: Formação e contexto. 6th ed. Bazar do Tempo, São Paulo.

Neri M, Jameli D, Bernard E, Melo FPL (2019) **Green versus green? Adverting potential conflicts between wind power generation and biodiversity conservation in Brazil.** *Perspectives in Ecology and Conservation* 17(3):131-135. doi: 10.1016/j.pecon.2019.08.004.

O'Leary Simpson F, Titeca K, Pellegrini L, Muller T, Muliri Dubois M (2025) **Indigenous forest destroyers or guardians? The indigenous Batwa and their ancestral forests in Kahuzi-Biega National Park, DRC.** *World Development* 186:106818. doi: 10.1016/j.worlddev.2024.106818.

Oliveira RF, de Araujo Lira AF, Zaffaroni-Caorsi V, Feitosa MLB, de Moura GJB (2025) **Wind farm noise negatively impacts the calling behavior of three frogs in Caatinga dry forests.** *Plos ONE* 20(3):e0318517. doi: 10.1371/journal.pone.0318517.

Pacari N (2009) **Naturaleza y territorio desde la mirada de los pueblos indígenas.** In: Acosta A, Martínez E (Eds.) Derechos de la Naturaleza: El futuro es ahora. Abya-Yala, Quito, pp. 31–38.

Parry L et al. (2025) **Forest citizens and people-centered conservation in the Brazilian Amazon.** *Conservation Biology* 39:e70031. doi: 10.1111/cobi.70031.

Pfaff A, Robalino J, Sandoval C, Herrera D (2015) **Protected area types, strategies and impacts in Brazil's Amazon: public protected area strategies do not yield a consistent ranking of protected area types by impact.** *Philosophical Transactions of the Royal Society B: Biological Sciences* 370(1681):20140273. doi: 10.1098/rstb.2014.0273.

Pimenta J, Moura GF (2010) **O sabonete da discórdia: uma controvérsia sobre conhecimentos tradicionais indígenas. In: Lima EC, Souza MC (orgs) Conhecimento e cultura: práticas de transformação no mundo indígena.** Athalaia, Brasília, p. 63–93.

Pitanguy J (2023) **A carta das mulheres brasileiras aos constituintes: memórias para o futuro. In: Hollanda HB (Org.) Pensamento Feminista Brasileiro: Formação e contexto**. 6th ed. Bazar do Tempo, São Paulo.

Prioli-Duarte D et al. (2023) **Reducing natural vegetation loss in Amazonia critically depends on the formal recognition of Indigenous lands.** *Biological Conservation* 279:109936. doi: 10.1016/j.biocon.2023.109936.

Quijano A (2000) **Coloniality of power, eurocentrism, and Latin America.** *International Sociology 15(2)*. doi: 10.1177/0268580900015002005.

Redvers N et al. (2019) **Indigenous perspectives on planetary health: a call for action.** *The Lancet Planetary Health* 3(9):e381–e382. doi: 10.1016/S2542-5196(19)30115-7.

Reis DS (2022) **A colonialidade do saber: perspectivas decoloniais para repensar a univers(al)idade.** *Educação & Sociedade* 43:e240967. doi: 10.1590/ES.240967.

Reo NJ (2019) **Inawendiwin and relational accountability in Anishnaabeg studies: the crux of the biscuit.** *Journal of Ethnobiology* 39(1):65–75. doi: 10.2993/0278-0771-39.1.65.

Saffioti H (2023) **Violência de gênero: o lugar da práxis na construção da subjetividade.** In: Hollanda HB (Org.) Pensamento Feminista Brasileiro: Formação e contexto. 6th ed. Bazar do Tempo, São Paulo.

Santos AB (2015) **Colonização, quilombos: modos e significados.** Fundação Cultural Palmares, Brasília.

Santos BS (2019) **O fim do império cognitivo: A afirmação das epistemologias do Sul.** Autêntica, Belo Horizonte.

Santos AB (2023) **Somos da Terra.** In: Terra: Antologia Afro-Indígena. Ubu Editora; Piseagrama, São Paulo.

Silva TC, Medeiros PM, Hanazaki N, Fonseca-Kruel VS, Hora JSL, Medeiros SG (2019) **The role of women in Brazilian ethnobiology: challenges and perspectives.** *Journal of Ethnobiology and Ethnomedicine* 15:44. doi: 10.1186/s13002-019-0322-3.

Slobodian V, Soares KDA, Falaschi RL, Prado LR, Camelier P, Guedes TB, Leal LC, Hsiou AS, Del-Rio G, Costa ER, Pereira KRC, D'Angiolella AB, de A Sousa S, Diele-Viegas LM (2021) **Why we shouldn't blame women for gender disparity in academia: perspectives of women in zoology.** *Zoologia* 38(1):1-9. doi: 10.3897/zoologia.38.e61968.

Soares-Filho BS, Moutinho P, Nepstad D, Anderson A, Rodrigues H, Garcia R, Dietzsch L, Merry F, Bowman M, Hissa L, Silvestrini R, Maretti CC (2010) **Role of Brazilian Amazon protected areas in climate change mitigation.** *Proceedings of the National Academy of Sciences of the USA* 107(24):10821-10826. doi: 10.1073/pnas.0913048107.

Soldati GT, Almada ED (2024) **Political Ethnobiology.** *Ethnobiology and Conservation* 13. doi: 10.15451/ec2024-07-13.20-1-18.

Song X, Zhang S, Huang H et al. (2024) **A systematic review of the inequality of health burdens of climate change.***Frontiers of Environmental Science & Engineering* 18:63. doi: 10.1007/s11783-024-1823-4.

Stoll S, Cenci DR (2025) **Litigância como governança transversal na promoção de democracia, direitos humanos, justiça climática, mitigação e reparação de danos e desastres.** *Revista Direitos Fundamentais & Democracia* 30(1):127-152. doi: 10.25192/ISSN.1982-0496.RDFD.V.30.I.2835.

Tauli-Corpuz V, Alcorn JB, Molnar A, Healy C, Barrow E (2020) **Cornered by PAs: Adopting rights-based approaches to enable cost-effective conservation and climate action**. *World Development* 130: 104923. doi: 10.1016/j.worlddev.2020.104923.

Zahedi K, Gudynas E (2008) **Ética y desarrollo sostenible.** In: Gottsbacher M, Lucatello S (Eds.) Reflexiones sobre la ética y la cooperación internacional para el desarrollo: los retos del siglo XXI. Insti-

tuto Mora, México, pp. 273-292.

Zank S, Julião CG, de Lima ADS, da Silva MT, Levis C, Hanazaki N, Peroni N (2025) **Ethnobiology! Until when will the colonialist legacy be reinforced?** *Journal of Ethnobiology and Ethnomedicine* 21(1):1. doi: 10.1186/s13002-024-00750-4.

Zaragocin S, Caretta MA (2021) **Cuerpo-Territorio: A decolonial feminist geographical method for the study of embodiment.** *Annals of the American Association of Geographers* 111(5):1503-1518. doi: 10.1080/24694452.2020.1812370.

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