

**Individuals vs. Species:
A Critique of Environmental Law's Focus on Biodiversity**

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Rat smashed by a car (I took this photo in Valetta/Malta, 2017)

Abstract:

This article explores the tension in environmental law between conserving species and protecting individuals. After discussing the species-centric approach in several leading treaties at the nexus between environmental law and animal law, and showing how these permit harms to individual sentient animals, an alternative framework is introduced, focused on animals' capacity to suffer. My focus here is on the many noncriminalized harms defining environmental law today.

I. Introduction

Environmental law disproportionately focuses on species conservation while disregarding the suffering of individual animals. Crimes against countless individuals are not prohibited under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) if their species is not endangered. A species-centric approach also defines the

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Kunming-Montreal Global Biodiversity Framework (GBF or Biodiversity Deal) and the Biodiversity of Areas Beyond National Jurisdiction Agreement (BBNJ or High Seas Treaty). National/regional frameworks such as the Environmental Species Act (ESA) and the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) are similarly deficient in rights or welfare provisions for individual animals. This fixation on species obscures crimes against trillions of sentient beings.

Amid the current extinction crisis, protecting species may seem more pressing than valuing individuals. Yet, nonhuman animals are not primarily species, but individuals seeking to survive and thrive, with distinct needs and a moral (alas, not legal) right to not be harmed. Under both domestic and international environmental laws, as long as species are conserved, individuals can be legally displaced, abducted, confined, tortured, and killed. We see that happening to the victims of industrial animal farming, a legal anomaly, and to the victims of wildlife trade, legal and artificially distinguished from wildlife trafficking. Given animals' property status, only extreme forms of animal abuse are outlawed; most others are culturally and legally permissible. This disregard for life and sentience turns nature into a site of extraction and crime. In this context, environmental law serves a palliative function, failing to address the root causes of environmental destruction and nonhuman suffering: commercial sectors profiting from harming nature and animals.

My exploration of the tension between species and individuals in environmental law comes in three parts. Section II explores how multilateral environmental agreements utilize this species-centric approach and what this fixation on species costs individual animals. Section III explores a less harmful framework that is animal rights focused, victim-centered, and individual-centered. Though preferable, this alternative is challenging, practically and ethically. Sounder criteria for conferring rights, particularly to wild animals, would consider: (1) how the animal experiences suffering, physically and psychologically, in the context of its use and abuse; (2) how its killing or abuse impacts other individuals of its species living now as well as intergenerationally; (3) how its removal from its habitat impacts other beings who cohabit its ecosystem. These suggested criteria, detailed later, are not easy to assess; embracing an expansive approach to the nexus between environmental law and animal law ties animal rights to our ignorance: we know little about species and even less about individuals. Finally, Section IV concludes by discussing why we should recognize, legally and socially, our crimes against nonhumans. My hope is to identify how environmental law can adopt a more honest, compassionate approach, in particular to sentient wild animals. Part of my aim here is also to explore how animal rights law, centered on the micro (individual animal suffering) can be reconciled with environmental law, centered on the macro (species and ecosystems survival).

II. The Species-Centric Approach in Environmental Law

We are amid a sixth mass extinction; unlike the five prior mass extinctions when the planet lost between 75% and 96% of its species due to natural causes,² the current extinction crisis is primarily driven by human interventions (and aggravating non-interventions).³ Numerous interrelated factors harm nature and nonhumans: climate change; land, water, and air pollution; industrial animal farming; wildlife trade; logging and mining; residential and industrial ‘development’. With over one million animal and plant species threatened with extinction,⁴ policymaking remains centered on protecting species. Yet, this should not come with disregard for individual suffering. Reports on environmental issues by high-profile entities such as the Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) have become standards for how we think of the extinction crisis. The assumption here is that science neutrally informs policy; however, science is not independent from policy, since often ‘knowledge is the co-produced outcome of policy’.⁵ We thus need to critically examine our attachment to biodiversity and the hierarchies and tradeoffs it rests on.

Nature often appears as an abstraction in environmental law: legalese tends to strip problems and solutions of their complexity and of the compassion needed to deeply understand them. In environmental law conventions, the individual lives constituting nature are often invisibilized. The value of individuals and of species varies depending on the timespan considered: ‘Across a thousand years, the approximate threshold interval of evolutionary time, individuals lose most of their relevance as biological units’.⁶ A macro, long-term perspective thus blurs the significance of individuals, human and nonhuman.

² David Jablonski, ‘Background and Mass Extinctions: The Alternation of Macroevolutionary Regimes’ (1986) 231 *Science* 129 <<https://www.science.org/doi/abs/10.1126/science.231.4734.129>> accessed 17 September 2024; David M Raup and J John Sepkoski Jr, ‘Mass Extinctions in the Marine Fossil Record’ (1982) 215 *Science* 1501 <<https://doi.org/10.1126/science.215.4539.1501>> accessed 17 September 2024; David M Raup and J John Sepkoski, Jr, ‘Periodicity of Extinctions in the Geologic Past’, *Proceedings of the National Academy of Sciences of the United States of America* 81(3) (1984) <<https://doi.org/10.1073/pnas.81.3.801>> accessed 17 September 2024.

³ Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History* (Picador 2014); Gerardo Ceballos et al, ‘Accelerated Modern Human-Induced Species Losses: Entering the Sixth Mass Extinction’ (2015) 1(5) *Science Advances* <<https://www.science.org/doi/10.1126/sciadv.1400253>> accessed 17 September 2024.

⁴ Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), *The Global Assessment Report on Biodiversity and Ecosystem Services of IPBES* (2019) XVI <<https://doi.org/10.5281/zenodo.3831673>> accessed 17 September 2024.

⁵ Esther Turnhout and Andy Purvis, ‘Biodiversity and Species Extinction: Categorisation, Calculation, and Communication’ (2020) 29(4) *Griffith Law Review* 669, 670 <https://files.ipbes.net/ipbes-web-prod-public-files/webform/impact_tracking_database/55516/Biodiversity%20and%20species%20extinction%20categorisation%20calculation%20and%20communication.pdf> accessed 17 September 2024.

⁶ Edward O Wilson, *Biophilia* (Harvard University Press 1984) 43–44.

Frameworks for mitigating climate change, for sustainable development, biodiversity and conservation, and for addressing other environmental concerns theoretically benefit all lives, human and nonhuman, now and intergenerationally. Yet, solutions to the severe impact of human activities on individual sentient nonhumans are typically absent in environmental laws, which allow crimes to continue unabated.

‘Harm’ is often used in zemiology and critical criminology, alongside ‘crime’, to highlight that certain (in)actions, while harmful, remain invisible and noncriminalized. Often states deliberately choose not to outlaw such harms, which should be treated as corporate crimes, state crimes, or state–corporate crimes.⁷ Instead of ‘harm’, which dilutes the horrific and unnecessary suffering routinely inflicted on animals, I prefer to use ‘crime’, even if not recognized by the law. This approach better conveys the gravity of criminal though legal actions such as the torture and murder of sentient beings. The law is a poor indication of justice. It has taken criminal law decades or centuries to catch up with socially normalized crimes such as genocide, slavery, colonialism, or wars of aggression and most of these remain inadequately criminalized today. Thus, using ‘crime’ to only designate what is outlawed would be a disservice to victims, who are my concern here.

The focus on species in environmental law is tied to the biodiversity discourse. The Convention on Biological Diversity defines biodiversity as ‘the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems’.⁸ Despite this broad definition, environmental policy centers on species, particularly the number of species, typically limited to animals and plants, thus excluding other forms of life. Scholars have noted that species richness is a limiting criterion for understanding biodiversity, as is extinction a narrow evaluation of biodiversity loss; different definitions and metrics are needed beyond this focus

⁷ Pamela Davies, Peter Francis, and Tanya Wyatt (eds), *Invisible Crimes and Social Harms* (Palgrave Macmillan 2014); Avi Boukli and Justin Kotzé (eds), *Zemiology: Reconnecting Crime and Social Harm* (Palgrave Macmillan 2018); Paddy Hillyard et al (eds), *Beyond Criminology: Taking Harm Seriously* (Pluto Press 2004); Ian Taylor, Paul Walton, and Jock Young (eds), *Critical Criminology* (Routledge 1975); Penny Green and Tony Ward, *State Crime: Governments, Violence and Corruption* (Pluto Press 2004); Raymond J Michalowski and Ronald J Kramer, ‘State–Corporate Crime and Criminological Inquiry’ in Henry N Pontell and Gilbert Geis (eds), *International Handbook of White-Collar and Corporate Crime* (Springer 2007) 200. Focusing solely on the law to address crimes offers an incomplete picture, especially on global issues like environmental damage, given the colonial, hegemonic nature of international law. An approach transcending legal frameworks is needed, since ‘The law is ill-equipped to respond to these diffuse, complex, subtle processes.’ See Penny Green and Tony Ward, ‘Civil Society, Resistance and State Crime’ in Elizabeth Stanley and Jude McCulloch (eds), *State Crime and Resistance* (Routledge 2013) 28.

⁸ Convention on Biological Diversity (adopted 5 June 1992, entered into force 29 December 1993) 1760 UNTS 79 <<https://www.cbd.int/convention/text>> accessed 17 September 2024.

on species.⁹ Besides how this fixation on species limits our grasp of biodiversity, to me the primary harm of this approach is how it obscures the suffering of individuals.

To document this species-centric approach, I examine several frameworks at the intersection of environmental law and animal law: the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Kunming-Montreal Global Biodiversity Framework, the Biodiversity of Areas Beyond National Jurisdiction Agreement, and the Endangered Species Act. These reveal tradeoffs between the macro (species conservation) and the micro (individual animal rights). Next, I show how this species-centric approach also shapes academia and advocacy. Finally, I share some examples attesting the necropolitics guiding biodiversity and conservation regimes. At the heart of this analysis is my concern for the suffering of sentient beings who remain victims of laws that theoretically protect them.

a. CITES: Protecting Wildlife While Normalizing Animal Abuse

The 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)¹⁰ is the core international treaty regulating wildlife trade. Wildlife trade is a lucrative sector globally, including both legal and illegal forms. Wildlife trafficking is tied to criminal networks, some also involved in other environmental crimes, and/or in drugs, arms, and human trafficking.¹¹ Wildlife trafficking persists in spite of concerted international and national action; seizures during 2015–2021 indicate illegal trade in 162 countries and territories, impacting around 4,000 animal and plant species, about 3,250 which are listed under CITES.¹² Corruption is central to all phases of wildlife crime, including poaching, smuggling, trade, money laundering, and the evasion of law enforcement.¹³ Since nature

⁹ Turnhout and Purvis (n 5).

¹⁰ Convention on International Trade in Endangered Species of Wild Fauna and Flora (adopted 3 March 1973, entered into force 1 July 1975) <<https://cites.org/sites/default/files/eng/disc/CITES-Convention-EN.pdf>> accessed 17 September 2024.

¹¹ Daan P van Uhm and Rick C Nijman, ‘The Convergence of Environmental Crime with Other Serious Crimes: Subtypes Within the Environmental Crime Continuum’ (2020) 19(4) *European Journal of Criminology* 542 <<https://journals.sagepub.com/doi/10.1177/1477370820904585>> accessed 17 September 2024.

¹² United Nations Office on Drugs and Crime, *World Wildlife Crime Report 2024: Trafficking in Protected Species* (2024) 21 <https://www.unodc.org/documents/data-and-analysis/wildlife/2024/Wildlife2024_Final.pdf> accessed 17 September 2024.

¹³ Wildlife Justice Commission, *Dirty Money: The Role of Corruption in Enabling Wildlife Crime* (2023) <<https://wildlifejustice.org/wp-content/uploads/2023/07/corruption-report-2023-SPREADS-V12.pdf>> accessed 17 September 2024.

crime involves transnational and intersectional offences, international, multi-sector cooperation is needed.¹⁴ This, in part, is what CITES addresses.

Among the oldest and most widely ratified multilateral conservation agreements, with 184 signatories, CITES is arguably the most controversial international environmental convention. Its basic assumptions and procedures have been consistently challenged over the past decades.¹⁵ CITES stipulates protections against the *overexploitation* of nearly 41,000 species of animals and plants. Under CITES, international trade in these *specimens* is subjected to a licensing system. Populations listed under CITES are divided into three categories. Appendix 1 includes species threatened with extinction for which commercial trade is not permitted and non-commercial trade is strictly controlled. Appendix 2 lists species not threatened with extinction for which trade must be regulated to protect their survival; most taxa listed under CITES fall under appendix 2. Appendix 3 includes species protected in at least one country which has requested CITES assistance in controlling trade.

‘Overexploitation’ and ‘specimens’, the words I italicized above, are emblematic of the anthropocentric, speciesist nature of environmental law: exploitation and its associated harms are tolerated while only overexploitation falls under the convention. Sentient beings are treated as specimens: merely representatives of their species, not individuals with distinct lives, worthy of rights. The convention’s preamble leaves little room for interpretation, noting ‘the ever-growing value of wild fauna and flora from aesthetic, scientific, cultural, recreational and economic points of view’. Nonhuman lives are presented here as having little intrinsic value; they are merely resources instrumentalized across different sectors. Utilitarian considerations shape the convention: CITES seeks to ensure sustainable trade, not to protect nonhumans from the crimes that inevitably come with trade, tied to their objectification. This macro, species-centered approach is typical of environmental law while animal law focuses on the micro, the individual.¹⁶

Though CITES covers both animals and plants, here I only discuss wild animals, given my concern for harms to sentient beings. Effectively, the species-centric approach guiding CITES allows crimes against billions of sentient animals as long as their species is not endangered. Abducted from their habitats, displaced, confined, exploited, tortured, injured, maimed, and/or killed in the food and clothing industry, in laboratories, zoos, aquariums, circuses or private homes, animals victimized by wildlife trade live and die suffering. When

¹⁴ Nature Crime Alliance, ‘The Vancouver Statement on Nature Crime’ (2023) <<https://naturecrimealliance.org/the-vancouver-statement-on-nature-crime>> accessed 17 September 2024.

¹⁵ Jon Hutton and Barnabas Dickson (eds), *Endangered Species, Threatened Convention: The Past, Present and Future of CITES* (Routledge 2000) xv.

¹⁶ Thomas G Kelch, ‘CITES, Globalization, and the Future of Animal Law’ in Randall S Abate (ed), *What Can Animal Law Learn from Environmental Law?* (2nd edition, Environmental Law Institute 2020) 558.

not killed for their bodies to be used, many animals die from illness caused by the trauma of abduction, captivity, and exploitation. Though CITES includes some animal welfare provisions, these are often narrowly interpreted and not enforced.¹⁷ Absurdly, even national agencies enforcing CITES, theoretically meant to protect wildlife, confine and kill thousands of confiscated wild animals, including endangered species, because their rehabilitation and release are (perceived to be) too complicated and pricy.¹⁸

Defining wildlife trade is thus not death, which is natural and inevitable, but killing, deliberate or caused by negligence or ignorance, as noted in my prior work.¹⁹ In this context, the misleading distinction between legal and illegal wildlife trade becomes evident: the species-centric approach creates an artificial double standard, allowing crimes against animals whose species is not of concern while prohibiting or limiting trade in other species deemed at risk. This artificial distinction between legal and illegal wildlife trade has also created dual markets: since some wild animals cannot be traded if they are wild caught but trade in the same species is allowed if they are captive bred, we have cases where abducted freeborn animals are laundered through the wildlife farming market.²⁰ Besides suffering caused to individual animals, illegal and often also legal wildlife trade cause or exacerbate defaunation, trophic cascades, ecological meltdown, the anthropogenic Allee effect, and other phenomena affecting humans, nonhumans, and nature.²¹ As I point out elsewhere, the legal status of criminal sectors like wildlife trade does not make the crime more tolerable for nonhuman victims or the actions of human beneficiaries less unethical.²² Sentient animals do not feel any better if they are legally tortured and killed; they still suffer, regardless of how the law designates their use and abuse. An ethically consistent approach would require treating both legal and illegal trade in sentient wild animals as criminal.

¹⁷ Michael Bowman, 'Conflict or Compatibility? The Trade, Conservation and Animal Welfare Dimensions of CITES' (1998) 1(1) *Journal of International Wildlife Law and Policy* 9 <<https://doi.org/10.1080/13880299809353883>> accessed 17 September 2024.

¹⁸ Ragnhild Sollund, *The Crimes of Wildlife Trafficking: Issues of Justice, Legality and Morality* (Routledge 2019).

¹⁹ Rimona Afana, 'Review of Ragnhild Sollund, *The Crimes of Wildlife Trafficking: Issues of Justice, Legality and Morality*' (2021) 10(2) *State Crime Journal* 336 <<https://www.scienceopen.com/hosted-document?doi=10.13169/statecrime.10.2.0335>> accessed 17 September 2024.

²⁰ Sollund (n 18); Jessica A Lyons and Daniel JD Natusch, 'Wildlife Laundering Through Breeding Farms: Illegal Harvest, Population Declines and a Means of Regulating the Trade of Green Pythons (*Morelia viridis*) from Indonesia' (2011) 144(12) *Biological Conservation* 3073 <<https://www.sciencedirect.com/science/article/abs/pii/S0006320711003685>> accessed 17 September 2024.

²¹ Daan P van Uhm, *The Illegal Wildlife Trade: Inside the World of Poachers, Smugglers and Traders* (Springer 2016) 17–32.

²² Rimona Afana, 'Challenging Captivity: Legal and Civic Strategies for Liberating Confined Nonhumans', *Animals & Society* Institute colloquium series <<https://www.youtube.com/watch?v=7d8WFMraDGM>> accessed 17 September 2024.

b. The Biodiversity Deal: Conservation for Some, Death for Many

The Kunming-Montreal Global Biodiversity Framework (GBF) or Biodiversity Deal also attests the species-centric approach. Adopted in 2022, the GBF builds on prior strategic plans of the Convention on Biological Diversity, now ratified by 196 countries. The GBF was hailed as a ‘historic landmark’,²³ targeting ‘a world living in harmony with nature by 2050’²⁴ through four long-term goals: ‘protect and restore’, ‘prosper with nature’, ‘share benefits fairly’, ‘invest and collaborate’. As many other legal frameworks supposedly protecting nature, the Biodiversity Deal only provides symptomatic relief. The kind of harmony it aspires to entails the same extractive and criminal rapport to nature characterizing our lives today. Its changes are merely cosmetic and palliative: offering minimal protection to small segments of nature yet failing to address the root causes of environmental destruction and nonhuman suffering.

Nowhere in the GBF’s text do we find references to animal rights or welfare. Also absent is any critical engagement with the impact of industrial animal farming and wildlife trade, core threats to biodiversity (the species-centric approach) while also causing suffering and death to trillions of individual sentient animals.²⁵ Both legal and illegal wildlife trade, as well as industrial animal farming contribute to wild habitat destruction, fragmentation or deterioration, species extinction, and to the introduction of invasive species. Industrial animal farming is significantly responsible for greenhouse gas emissions, soil pollution, water pollution and depletion.²⁶ The GBF’s engagement with agriculture and aquaculture only

²³ European Parliament Environmental Committee, ‘Progress on Implementing the Kunming-Montreal Global Biodiversity Framework’ (2023) 1
<[https://www.europarl.europa.eu/RegData/etudes/IDAN/2024/754196/IPOL_IDA\(2024\)754196_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/IDAN/2024/754196/IPOL_IDA(2024)754196_EN.pdf)> accessed 17 September 2024.

²⁴ Convention on Biological Diversity, ‘Kunming-Montreal Global Biodiversity Framework’ (19 December 2022) 8 <<https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf>> accessed 17 September 2024.

²⁵ Nearly 83 billion land animals and 2 trillion fish are killed annually across the globe just for food. These numbers increase when accounting for other sectors reliant on animal (ab)use. Before being killed, most animals experience captivity, injury, illness, and torture. See Faunalytics, ‘Global Animal Slaughter Statistics & Charts’ (2024) <<https://faunalytics.org/global-animal-slaughter-statistics-and-charts>> accessed 17 September 2024; Claire Hamlett, ‘How Many Animals Are Killed for Food Every Day?’ (2024) Plant Based News <<https://plantbasednews.org/animals/how-many-animals-are-killed-for-food-everyday>> accessed 17 September 2024.

²⁶ United Nations Food and Agriculture Organization, ‘Livestock’s Long Shadow: Environmental Issues and Options’ (FAO Publications 2006) <www.fao.org/3/a0701e/a0701e.pdf> accessed 17 September 2024; Brian Machovina, Kenneth J Feeley, and William J Ripple, ‘Biodiversity Conservation: The Key is Reducing Meat Consumption’ (2015) 536 *Science of The Total Environment* 419 <www.sciencedirect.com/science/article/abs/pii/S0048969715303697> accessed 17 September 2024; Oscar Morton, Brett R Scheffers, Torbjørn Haugaasen, and David P Edwards, ‘Impacts of Wildlife Trade on

vaguely mentions sustainability, not animal welfare or rights. On wildlife trade, the GBF also only targets the sustainability and legality of trade, warning against overexploitation,²⁷ which, just as CITES, allows animal abuse.

While recognizing ‘the rights of nature and rights of Mother Earth’ as integral to the GBF’s successful implementation,²⁸ it offers no solution for reconciling its anthropocentric ethos (normalizing sectors which harm or irreversibly exterminate parts of nature) with supposed rights for nature. The treaty is rooted in a human rights approach²⁹ in which nature remains property; environmental law is thus subordinated to anthropocentric agendas. For effective protection of ecosystems and of individual nonhumans, Rights of Nature and animal rights law require a different approach which confers legal personhood to ecosystems and to nonhuman animals, in contrast to their current designation as property. However, the Rights of Nature framework itself privileges ecosystems and species over individual animal rights.³⁰ Others have noted the synergies between animal rights and Rights of Nature, and their needed coordination, particularly on industrial animal agriculture, a major cause of both environmental destruction and animal abuse.³¹ Legally and ethically, a gap lingers between the aspirational rhetoric and practical ramifications of the GBF.

c. The High Seas Treaty: ‘Protecting’ the Ocean Amid Relentless Extraction

The Biodiversity of Areas Beyond National Jurisdiction Agreement³² (BBNJ), also referred to as the High Seas Treaty, similarly shows a predominant concern for species. The

Terrestrial Biodiversity’ (2021) 5 *Nature Ecology & Evolution* 540 <<https://www.nature.com/articles/s41559-021-01399-y>> accessed 17 September 2024.

²⁷ Kunming-Montreal Global Biodiversity Framework (n 24) 10.

²⁸ *ibid* 5.

²⁹ *ibid* 6.

³⁰ Serrin Rutledge-Prior, ‘Losing the Trees for the Forest: A Critique of Rights of Nature as a Basis for Animal Rights’, Cambridge Centre for Animal Rights Law (2024) <<https://www.youtube.com/watch?v=-s7Fei1kFew>> accessed 17 September 2024.

³¹ Macarena Montes and Kristen Stilt, ‘Naturalized Rights of Animals, Animalized Rights of Nature’ (2024) <<https://ssrn.com/abstract=4826699>> accessed 17 September 2024. One example of this convergence between animal rights and Rights of Nature discussed by Montes and Stilt is the Estrellita case concerning a woolly monkey victimized by wildlife trafficking in Ecuador. In this case, the Constitutional Court of Ecuador recognized animal rights (the ruling specifically focuses on individuality and intrinsic value) within the context of Rights of Nature, so going beyond the typical focus on species. See Nonhuman Rights Project, ‘A Landmark Ruling for Animal Rights in Ecuador’ (2022) <<https://www.nonhumanrights.org/blog/landmark-ruling-animal-rights-ecuador>> accessed 17 September 2024.

³² Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction (20 September 2023) <https://treaties.un.org/doc/Treaties/2023/06/20230620%2004-28%20PM/Ch_XXI_10.pdf> accessed 17 September 2024.

BBNJ, developed under the 1982 United Nations Convention on the Law of the Sea (UNCLOS),³³ was adopted in June 2023 after nearly two decades of preparatory work and negotiations. The ocean now faces climate change, pollution, ecosystem degradation, biodiversity loss, unsustainable extraction, and inequitable sharing of marine resources. To address some of these, the BBNJ treaty covers four areas: marine genetic resources and the equitable sharing of benefits; area-based management tools and marine protected areas; environmental impact assessments; capacity building and the transfer of marine technology.

The high seas are marine areas outside the 200 nautical mile limit of the exclusive economic zones of coastal states; the high seas include nearly two thirds of the ocean's surface and constitute almost 95% of our planet's total habitat by volume.³⁴ The high seas are home to trillions of beings, yet the BBNJ shows little concern for these denizens of the depths. Since the treaty's objective is 'the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction',³⁵ the BBNJ primarily focuses on the technicalities of extraction, given the economic value of marine resources, used in food, energy, pharmaceuticals, and other sectors of the blue economy.³⁶

Among the fourteen principles guiding the BBNJ,³⁷ none recognize the intrinsic value and rights of nonhumans, particularly sentient animals. Animate and inanimate parts of the ocean are treated as resources, only protected to guarantee their continued use. 'Sustainable' development, rooted culturally in anthropocentrism and economically in neoliberalism (prioritizing growth and profit maximization), remains in fact unsustainable.³⁸ Yet, the

³³ United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 397 <<https://treaties.un.org/doc/Publication/UNTS/Volume%201833/volume-1833-A-31363-English.pdf>> accessed 17 September 2024.

³⁴ International Union for the Conservation of Nature (IUCN), 'High Time for the High Seas' (n.d.) <<https://digital.iucn.org/marine/high-time-for-high-seas/>> accessed 17 September 2024.

³⁵ *ibid* 4.

³⁶ On the promises and harms of the blue economy, see Irus Braverman and Elizabeth R Johnson (eds), *Blue Legalities: The Life and Laws of the Sea* (Duke University Press 2020); Irus Braverman (ed), *Laws of the Sea: Interdisciplinary Currents* (Routledge 2022); Ilaria Perissi and Ugo Bardi, *The Empty Sea: The Future of the Blue Economy* (Springer 2021); Hance D Smith, Juan L Suárez de Vivero, and Tundi S Agardy (eds), *Routledge Handbook of Ocean Resources and Management* (Routledge 2016); Kimberley Peters, Jon Anderson, Andrew Davies, and Philip Steinberg (eds), *The Routledge Handbook of Ocean Space* (Routledge 2022); Paul Foley and Jennifer Silver (eds), *Routledge Handbook on Critical Ocean Studies* (forthcoming: Routledge 2024).

³⁷ Agreement on Marine Biological Diversity of Areas Beyond National Jurisdiction, 5–6.

³⁸ Jeffrey D Sachs, *The Age of Sustainable Development* (Columbia University Press 2015); Ingolfur Blühdorn, 'Post-Capitalism, Post-Growth, Post-Consumerism? Eco-Political Hopes Beyond Sustainability' (2017) 7(1) *Global Discourse* 42 <<https://doi.org/10.1080/23269995.2017.1300415>> accessed 17 September 2024; Jason Hickel, 'The Contradiction of the Sustainable Development Goals: Growth Versus Ecology on a Finite Planet'

concept guides environmental laws, offering symptomatic relief. During negotiations, parts of the treaty's text gave rise to contentious positions between parties;³⁹ unsurprisingly, these differences mainly concerned states' economic interests, not the ethical and practical ramifications of relentless extraction. The IUCN ocean specialist group advised extensive revisions to the treaty's text, recommendations themselves skewed by an anthropocentric approach,⁴⁰ even if more thoroughly addressing the core harms than the BBNJ final text.

The treaty's concern for nonhumans is limited to creating marine protected areas for safeguarding biodiversity,⁴¹ thus protecting a few species, which leaves most nonhuman lives in the ocean outside its mandate. Protecting 30% of the oceans by 2030 is unrealistic⁴² and, even if reached, the protection offered by the BBNJ remains limited. As I noted elsewhere, the BBNJ is anthropocentric, conservative, and disconnected from today's critical scholarship and advocacy on ocean matters.⁴³ In contrast to these narrow approaches are nature rights-based initiatives such as the Universal Declaration of Ocean Rights (UDOR),⁴⁴

(2019) 27(5) *Sustainable Development* 873 <<https://onlinelibrary.wiley.com/doi/abs/10.1002/sd.1947>> accessed 17 September 2024.

³⁹ Anika Havaldar and Charlotte Verdon, 'Biodiversity Beyond National Jurisdiction Treaty Negotiations: Current Status & Outstanding Issues' (2023) 27(2) *ASIL Insights* <<https://www.asil.org/insights/volume/27/issue/2>> accessed 17 September 2024.

⁴⁰ Recommended revisions include references to the intrinsic value of biodiversity and the right of marine species and ecosystems to thrive, in line with Rights of Nature; however, there is no implication here of individual animal rights. See International Union for the Conservation of Nature, 'IUCN Commentary on the Further Revised Draft Text of an Agreement Under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction' (2022) 20–21 <www.iucn.org/sites/default/files/2022-08/igc5-iucn-commentary-on-bbnj-further-revised-draft.pdf> accessed 17 September 2024.

⁴¹ Agreement on Marine Biological Diversity of Areas Beyond National Jurisdiction, 16–25.

⁴² This refers to the so-called '30 by 30' pledge to protect a third of the world's terrestrial and marine biodiversity by 2030, drawing on commitments from the 2030 Agenda for Sustainable Development and the Kunming-Montreal Global Biodiversity Framework. See United Nations News, 'UN Delegates Reach Historic Agreement on Protecting Marine Biodiversity in International Waters' (2023) <<https://news.un.org/en/story/2023/03/1134157>> accessed 17 September 2024; Bastiaan E Klerk, '30 by 30? Navigating the Paradoxes of Part III of the BBNJ Agreement' (2023) International Law Blog <<https://internationallaw.blog/2023/05/15/30-by-30-navigating-the-paradoxes-of-part-iii-of-the-bbnj-agreement/>> accessed 17 September 2024.

⁴³ Rimona Afana, 'We Gifted the Ocean a Sea of Petroleum, Excrements, Robots and Plastics', review of Irus Braverman and Elizabeth R Johnson (eds), *Blue Legalities: The Life and Laws of the Sea* (Duke University Press 2020) (2023) 35(2) *Journal of Environmental Law* 307, 316 <https://academic.oup.com/jel/advance-article/doi/10.1093/jel/eqad014/7172755?utm_source=authortollfreelink&utm_campaign=jel&utm_medium=email&guestAccessKey=4f60199c-51c5-4060-9ccb-f7cd5cde5905> accessed 17 September 2024.

⁴⁴ Earth Law Center, 'Towards a Universal Declaration of Ocean Rights' (2022) <www.earthlawcenter.org/ocean-rights> and <https://static1.squarespace.com/static/55914fd1e4b01fb0b851a814/t/646523cd9c8b6d4f55abaa3c/1684349908559/UDOR_Concept+Note+%281%29.pdf> accessed 17 September 2024.

advanced by the Earth Law Center and several governmental and nongovernmental stakeholders. Though more critical than the BBNJ, the UDOR is itself limited when it comes to animal rights. As noted previously, Rights of Nature approaches, though going farther than mainstream environmental laws, tend to also focus on species and ecosystems at the expense of individual animal rights. The UDOR supports a non-extractive ethos, yet there are no specific references to nonhuman rights.

d. The Endangered Species Act: Extinction Amid Procedural Delays

The species-centric approach also dominates national and regional environmental laws, with few or no protections extended to individual animals whose species is not at risk. One example is the 1973 Endangered Species Act (ESA), the core legal framework protecting biodiversity in the US. ESA creates and updates lists of endangered or threatened species; mandates protections for wildlife listed as threatened or endangered; it plans and implements recovery actions; facilitates interagency and interstate cooperation; and implements CITES provisions.⁴⁵ Despite ESA's mandate to protect nonhumans, its implementation remains deficient: many threatened or endangered species enjoy no protections, given authorities' long delays in listing them. Since listing species under ESA is a lengthy legal process, animals risk extinction by the time they are finally listed. As noted in relation to *Center for Biological Diversity v Haaland* and similar ESA litigation cases: 'What we've seen is that species generally don't receive protection until they're really in dire, dire straits. [...] At least 47 species have gone extinct while waiting for protection'.⁴⁶

Besides these bureaucratic delays, the Endangered Species Act is also critiqued for other reasons: the majority of species protected under ESA have not recovered; ESA implementation has been inconsistent and confusing; significant funds are invested in failed recovery efforts; recovery focuses on charismatic species; landowners and businesses complain about infringement on their property rights; ESA is vulnerable to the political climate; and ESA faces obstructions from mining, oil, gas, and other sectors.⁴⁷ Another aspect worth noting here is that endangered species such as the oblong rocksnail (*Leptoxis*

⁴⁵ Endangered Species Act of 1973 (as amended through the 108th Congress) <<https://media.fisheries.noaa.gov/dam-migration/esa-accessible.pdf>> accessed 17 September 2024.

⁴⁶ Animal Law Podcast, 'A Case of Justice Delayed for Endangered Animals', episode 102 (2023) <<https://www.ourhenhouse.org/alp102/>> accessed 17 September 2024; Noah Greenwald et al, 'Extinction and the U.S. Endangered Species Act' (2019) 7 PeerJ e6803. <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6482936/>> accessed 17 September 2024.

⁴⁷ Jessica L Beaulieu, 'Protecting Wildlife Through the Public Trust Doctrine: What Animal Law Can Learn From *Juliana v. United States*' in Abate (n 16), 463–464.

compacta) could enjoy protections,⁴⁸ while some non-threatened animals with complex sentience⁴⁹ and thus whose suffering I believe should matter more can continue to be confined, tortured, and murdered by sectors like wildlife trade and animal farming.

ESA is not the only national or regional conservation framework with deficient animal rights/welfare provisions and with a range of bureaucratic obstacles impeding wild animal protection. The Bern Convention on the Conservation of European Wildlife and Natural Habitats⁵⁰ shows limitations similar to CITES and ESA, allowing the abuse of most animals while protecting a few. Though CITES and the Bern Convention operate simultaneously in Europe, studies show the two frameworks are misaligned, resulting in ambiguity for states implementing international wildlife law; this in part explains the sub-optimal performance of these frameworks: instead of robust protection for wildlife, the focus turns to legal technicalities.⁵¹

e. The Species-Centric Approach in Academia and Advocacy

A similar approach disregarding the suffering of individual animals and treating nature as an abstraction is evident also in some parts of academia and advocacy. One example is the 2022 IUCN International Environmental Law conference⁵² which brought together hundreds of environmental scholars, practitioners, policymakers, and advocates. This event, due to its scale and significance, is representative of what environmental law means in theory and praxis. During presentations and debates, panelists showed a limited concern for (or shallow understanding of) crimes against nonhumans. From the topics explored to the vocabulary

⁴⁸ Center for Biological Diversity, ‘Rare Alabama Snail Proposed for Endangered Species Protections’ (2023) <<https://biologicaldiversity.org/w/news/press-releases/rare-alabama-snail-proposed-for-endangered-species-protections-2023-10-30/>> accessed 17 September 2024.

⁴⁹ I refer here to animals like primates, cetaceans, elephantidae, suidae, canidae, and many others who display advanced cognitive abilities, elaborate social ties, and self-awareness. Some possess complex neurons, once thought to be unique to humans. See Helen Proctor, ‘Animal Sentience: Where Are We and Where Are We Heading?’ (2012) 2(4) *Animals* 628 <<https://www.mdpi.com/2076-2615/2/4/628>> accessed 17 September 2024; Atiya Y Hakeem et al, ‘Von Economo Neurons in the Elephant Brain’ (2009) 292(2) *The Anatomical Record: Advances in Integrative Anatomy and Evolutionary Biology* 242 <<https://pubmed.ncbi.nlm.nih.gov/19089889/>> accessed 17 September 2024.

⁵⁰ Convention on the Conservation of European Wildlife and Natural Habitats (adopted 19 September 1979, entered into force 6 June 1982) <<https://rm.coe.int/1680078aff>> accessed 17 September 2024.

⁵¹ David Rodríguez Goyes, ‘Contending Philosophical Foundation in International Wildlife Law: A Discourse Analysis of CITES and the Bern Convention’ (2021) 12(1) *Revista Catalana de Dret Ambiental* 1 <<https://revistes.urv.cat/index.php/rcda/article/view/3051/3134>> accessed 17 September 2024.

⁵² International Union for the Conservation of Nature (IUCN) World Commission on Environmental Law and the University of Oslo Faculty of Law, ‘2022 Oslo International Environmental Law Conference Program’ (2022) <www.iucnwcel2022.com/_files/ugd/742341_15f614591c1349cd87bfd6e4b83241a5.pdf> accessed 17 September 2024.

used, animals were discussed as collateral damage. Having attended and presented at the conference, I was surprised to see little concern for the disproportionate impact of environmental harms on sentient beings and no engagement with our (noncriminalized) crimes against animals.

In these discussions, human interests, needs and rights skewed notions of environmental harms and crimes. Our dominion over nature and abuse of animals remain a supposed necessity, though many of us can survive and thrive without using nonhuman animals for food, clothing, medical experiments, or entertainment due to technological innovations offering us alternatives.⁵³ While all branches of law are anthropocentric and speciesist, we need to work with and within the system to change the system. ‘The Transformative Power of Law’, the conference’s aspirational title, is challenged by our persistence in a paradigm that prioritizes human interests to the detriment of the needs and rights of (particularly sentient) nonhumans.

f. The Necropolitics of Biodiversity and Conservation

The killing of some animals to theoretically protect others is, paradoxically, central to conservation and biodiversity regimes. Environmental law treats individuals of a species as interchangeable, only relevant if the species is at risk. Thus, killing individuals appears benign and even needed if those individuals interfere with a species of greater concern. Wildlife management demonstrates this double standard: protections afforded to some, murder delivered to others. US Wildlife Services kill annually over two million wild animals (to supposedly protect humans, as well as wild and domesticated animals), often with inhumane killing methods, costing taxpayers over \$100 million every year.⁵⁴

One other telling example of the necropolitics⁵⁵ guiding environmental law is the culling of the crown-of-thorns starfish (COTS), a venomous coral-eating starfish which contributes

⁵³ However, sometimes access to non-animal-based products and services depends on socioeconomic status. For instance, many vegan products remain pricier than animal foods, not because it is always pricier to produce them but because animal farming benefits from significant subsidies in many countries. Also, there are indigenous communities who rely on animals for food, clothing, and agricultural work.

⁵⁴ Animal Legal Defense Fund, ‘Wildlife Services’ War on Wildlife’ (2022) <<https://aldf.org/issue/wildlife-services-war-on-wildlife/>> accessed 17 September 2024; Tom Knudson, ‘The Killing Agency: Wildlife Services’ Brutal Methods Leave A Trail of Animal Death’ (2012) *The Sacramento Bee* <<https://law.lclark.edu/live/files/18173-the-killing-agency-wildlife-services-brutal>> accessed 17 September 2024.

⁵⁵ Necropolitics sheds light on how those in power dictate death, dying, and killing. See Achille Mbembe, *Necropolitics* (Duke University Press 2019). Though Mbembe focuses on humans, states’ necropolitics can be observed in practices dictating how both humans and nonhumans live (including making life unlivable yet not inflicting mass death) and how they die, should die, or be left to die.

to increasing coral diversity by feeding on the fastest growing corals, which encourages slower-growing species to grow. In recent years however, the starfish has been considered responsible for coral cover decline and treated like a predator and pest.⁵⁶ Over half of the Great Barrier Reef is dead due primarily to ocean warming and acidification caused by anthropogenic climate change,⁵⁷ which remains ineffectively addressed by international environmental law. The starfish was rendered by scientists, lawmakers and even by some animal rights activists in Australia as a killable species and killed with the COTSbot, a robot trained to administer lethal injections.⁵⁸ Another illustration of individuals of a species killed to protect another species is the North American ruddy duck, which in Spain, the UK and in other European countries has been designated as invasive and subjected to culling. Given the danger of interbreeding with the endangered native white-headed duck, the ruddy duck has been for years subjected to a controversial extermination program.⁵⁹

Invasive animal species is perhaps the most difficult (and to me, most fascinating) area at the nexus between environmental law and animal law. Considering invasive animals raises complex ethical questions, given the tension between the damage they cause, which often comes with a need to eradicate them, and the duty to consider their sentience and treat them humanely. The extermination methods used against ‘invaders’ generally inflict significant suffering. Here again we see the tension between protecting species (those negatively impacted by the invasive species) and individuals (of that invasive species, brutally murdered). Our decisions on who matters and why are shaped by anthropocentric, utilitarian considerations. Though humans are to blame for the impact of invasive species (in all documented cases, humans are responsible, intentionally or due to negligence, for introducing the animal to a new environment), these non-consenting animals pay the price

The necropolitics inflicted on humans and nonhumans have been explored in my prior work: see Rimona Afana, ‘From Speciesism to Theriocide: Wildlife Trade and Industrial Animal Farming as Embodiments of the Genocide–Ecocide Continuum’ in Wendy Wiseman and Burak Kesgin (eds), *Lost Kingdom: Animal Death in the Anthropocene* (Vernon Press 2024); Rimona Afana, ‘They Started Bombing the Graves: Israel’s Necropolitics Against the Dead and the Unborn’, forthcoming in Thomas MacManus, Penny Green, Tony Ward, and Kristian Lasslett (eds), *The Routledge Handbook of State Crime* (Routledge 2024).

⁵⁶ Australian Government, Great Barrier Reef Marine Park Authority, ‘Crown-of-Thorns Starfish Control Program’ (2022) <<https://www2.gbrmpa.gov.au/our-work/programs-and-projects/crown-thorns-starfish/Crown-of-thorns-starfish-control-program>> accessed 17 September 2024.

⁵⁷ Great Barrier Reef Foundation, ‘Climate Change is the Single Biggest Threat Facing the Reef’ (n.d.) <<https://www.barrierreef.org/the-reef/threats/climate-change>> accessed 17 September 2024.

⁵⁸ Irus Braverman, ‘Robotic Life in the Deep Sea’ in Irus Braverman and Elizabeth R Johnson (eds), *Blue Legalities: The Life and Laws of the Sea* (Duke University Press 2020).

⁵⁹ Teresa Gimenez-Candela and Carly E Souther, ‘Invasive Animal Species: International Impacts and Inadequate Interventions’ in Abate (n 16) 644–648.

with their life.⁶⁰ The examples above attest the necropolitics guiding environmental law. Next, I explore why individuals matter.

III. Switching to Individual-Centered Frameworks

The primary consideration for transcending the species-centric approach is valuing sentience. While the pleasures felt by animals matter too,⁶¹ I believe that ethically and legally, our core duty is to refrain from causing suffering to another sentient being. Like humans, many nonhumans instinctively seek safety, comfort, freedom, autonomy, and connection. They feel pain, fear and stress, and avoid harms to their bodily and psychological integrity. Whether harmed directly (by sectors reliant on animal abuse, such as wildlife trade and animal farming) or indirectly (by climate change, damaging entire ecosystems or by ‘development’, wiping out wildlife habitats), trillions of sentient nonhumans today suffer from heat, cold, hunger, dehydration, illness, displacement, captivity, torture, killing.⁶² While suffering is a limiting criterion for determining rights, I resonate with ‘painism’, a concept which highlights that all beings who feel pain deserve rights.⁶³

When valuing sentience, nonhuman animals appear as not primarily species, but as individuals with distinct physical characteristics, different personalities and needs, with an innate drive to survive and to avoid suffering, intrinsic value, and ideally with a right to not be harmed. Many models for conferring legal personhood to nonhuman animals have been proposed, exploring who is included, why, how, and to what effect.⁶⁴ Yet, they leave ethical

⁶⁰ ibid 624.

⁶¹ While I take a minimalist approach here (the absence of suffering), I believe animals should be entitled to not just negative rights but positive rights too. For instance, Nussbaum writes about animals’ right to a dignified existence, to flourishing: Martha C Nussbaum, *Frontiers of Justice: Disability, Nationality, Species Membership* (Harvard University Press 2007); Martha C Nussbaum, *Justice for Animals: Our Collective Responsibility* (Simon & Schuster 2023).

⁶² Though my focus here are the legal, human-driven, profit-making sectors which inflict suffering on animals, wild (and some domesticated) animals experience these suffering-inducing factors also from natural causes. Despite our idyllic notion of nature, suffering in the wild is routine and often horrific, which some scholars believe comes with a duty for us to intervene to reduce harm. See Oscar Horta, ‘Debunking the Idyllic View of Natural Processes: Population Dynamics and Suffering in the Wild’ (2010) 17(1) *Télos* 73 <<https://www.stafforini.com/docs/Horta%20-20Debunking%20the%20idyllic%20view%20of%20natural%20processes.pdf>> accessed 17 September 2024;

Catia Faria, *Animal Ethics in the Wild: Wild Animal Suffering and Intervention in Nature* (Cambridge University Press 2022); Steve F Sapontzis, ‘Predation’ (1984) 5(2) *Ethics and Animals* 27; Sue Donaldson and Will Kymlicka, *Zoopolis: A Political Theory of Animal Rights* (Oxford University Press 2011).

⁶³ Richard D Ryder, *Speciesism, Painism and Happiness: A Morality for the Twenty-First Century* (Imprint Academic 2011).

⁶⁴ Gary L Francione, *Animals, Property, and the Law* (Temple University Press 1995); Lesli Bisgould, *Animals and the Law* (Irwin Press 2011); Maneesha Deckha, *Animals as Legal Beings: Contesting Anthropocentric*

and practical matters unresolved: we still lack a comprehensive and feasible animal rights model. Though some countries have recognized nonhuman animal sentience,⁶⁵ animals remain property in all jurisdictions.⁶⁶ Environmental protection frameworks honoring animal rights are thus only thought experiments. So are my reflections here.

Instead of a species-centric approach, I believe sounder criteria for determining rights, particularly for wild animals, are considering: (1) how the animal experiences suffering, physically and psychologically, in the context of its (ab)use; (2) how its abduction, confinement, torture and killing can impact other individuals of its species living now as well as intergenerationally; (3) how its removal from its habitat impacts other beings, so an ecosystem perspective. These criteria are not easy to assess; embracing an expansive approach to the nexus between environmental law and animal law ties animal rights to our ignorance. As I've noted previously, we still know little about the needs, joys, and pains of nonhuman animals: we know little about species and we know even less about the immense variability of individuals.⁶⁷ Since only a small part of the world's biodiversity is known and properly understood,⁶⁸ these layers of ignorance challenge animal rights frameworks centered

Legal Orders (University of Toronto Press 2021); David Favre, 'Living Property: A New Status for Animals within the Legal System' (2010) 93(3) *Marquette Law Review* 1021; Angela Fernandez, 'Not Quite Property, Not Quite Persons: A "Quasi" Approach for Nonhuman Animals' (2019) 5 *Canadian Journal of Comparative and Contemporary Law* 155; Ani B Satz, 'Animals as Vulnerable Subjects: Beyond Interest-Convergence, Hierarchy, and Property' (2009) 16(2) *Animal Law* 65; Anne Peters (ed), *Studies in Global Animal Law* (Springer 2020) <<https://link.springer.com/book/10.1007/978-3-662-60756-5>> accessed 17 September 2024; Visa Kurki, 'A Bird's-Eye View of Animals in the Law' (2024) *Modern Law Review* <<https://onlinelibrary.wiley.com/doi/10.1111/1468-2230.12886>> accessed 17 September 2024.

⁶⁵ In May 2024 Belgium amended its constitution to 'ensure the protection and well-being of animals as sentient beings'. See Elena Louazon, 'Belgium Enshrines Animal Welfare in Constitution' (2024) *Le Monde* <https://www.lemonde.fr/en/environment/article/2024/05/10/belgium-enshrines-animal-welfare-in-its-constitution_6671002_114.html> accessed 17 September 2024. Germany, Austria, Luxembourg, Slovenia and Italy have also included in their constitution protections for animals and other countries, in Europe and beyond, have laws recognizing sentience and stipulating welfare standards. These however do little to alter animals' legal status; animals remain objectified and only exceptional abuses are criminalized.

⁶⁶ Though the property status remains universal, there have been occasional exceptions to this, where courts conferred animals a status transcending property yet also falling short of the full rights associated to personhood. For instance, in 2021 animals were recognized as legal persons for the first time in the US in a lawsuit against the Colombian government's plans to kill about 100 hippos, descendants of animals imported by Pablo Escobar. See Animal Legal Defense Fund, 'Animals Recognized as Legal Persons for the First Time in U.S. Court' (2021) <<https://aldf.org/article/animals-recognized-as-legal-persons-for-the-first-time-in-u-s-court/>> accessed 17 September 2024. Another example is the Estrellita case (see n 31).

⁶⁷ Rimona Afana, 'Review of Maneesha Deckha, *Animals as Legal Beings: Contesting Anthropocentric Legal Orders* (University of Toronto Press 2021)' (2023) 11(1) *Global Journal of Animal Law* 1, 6 <<https://ojs.abo.fi/ojs/index.php/gjal/article/view/1819>> accessed 17 September 2024.

⁶⁸ Since '86% of existing species on Earth and 91% of species in the ocean still await description', most life forms on our planet remain beyond our grasp; see Camilo Mora et al, 'How Many Species are There on Earth and in the Ocean?' (2011) 9(8) *PLOS Biology*

on sentience or capacities. Next, I discuss the desirability of expansive, critical environmental frameworks while also noting their limitations.

My first criterion involves determining the intensity and duration of the animal's physical and psychological suffering in the context of its actual or potential (ab)use. Since animals lack rights and face routine abuse, I believe past, present and potential future sources of suffering need to be considered. Given our limited grasp of sentience when it comes to most animals, this is challenging if not impossible to assess. Since some animals are well-studied while most others are not, premising rights on sentience risks replicating the speciesism which now defines our treatment of nonhumans. Yet, even if we miss offering protections to species we know little about, we can still better protect the species we know enough about when it comes to their capacity to suffer.⁶⁹ Many animals now facing horrific crimes are known to have complex sentience: even if their abuse does not threaten the survival of their species, these individuals suffer when trapped in murderous sectors such as wildlife trade and animal farming (both also causing wider environmental harms), or when harmed indirectly by climate change or 'development' projects which damage the resources needed by animals to survive and thrive. Even if offering enhanced protections to a few species discriminates (just as many conservation programs do), leaving many others harmed, this individual-centered approach would still reduce suffering for billions of individuals known to currently suffer.

The second criterion, evaluating how animal (ab)use impacts other individuals of its species, may seem in line with current species-centric approaches. My concern however differs in focus: while environmental laws seek to protect the survival of species, here my focus remains on individual animal rights, but at a species level. Even if the species is not threatened with extinction, members of the species can still suffer physically and psychologically as a result of the individual's killing, displacement or abduction. This may be more pronounced in social animals (ants, bees, chimpanzees, elephants, orcas, and many others), where bonds between family members matter. Social behavior is adaptive, increasing the individual's chances of surviving and thriving, thus the suffering or loss of family members impacts nonhumans in multiple ways. One example is grief, a complex emotional, mental, and physical state we typically think of as only experienced by humans. Many nonhuman animals also experience grief⁷⁰ and some have a nascent awareness of death, their

<<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3160336/pdf/pbio.1001127.pdf>> accessed 17 September 2024.

⁶⁹ This of course risks creating a hierarchy of species and rights, since we know more about the sentience and capacities of a few charismatic species while most others remain not studied or under-studied.

⁷⁰ Barbara J King, *How Animals Grieve* (University of Chicago Press 2014); Barbara J King, 'When Animals Mourn' (2013) *Scientific American* <<https://www.scientificamerican.com/article/when-animals-mourn/>> accessed 17 September 2024; Jessica Pierce, 'Do Animals Experience Grief?' (2018) *Smithsonian Magazine*

own and that of other animals.⁷¹ The abduction, confinement, torture and killing of animals might harm, physically and psychologically, other members of its species living now and possibly also intergenerationally.⁷² Over the past decade, intergenerational rights often come up in environmental law debates;⁷³ however, this intergenerational concern is limited to humans. I include here also the rights of nonhuman future generations to not be harmed.

My third criterion considers how the removal of an animal from its habitat impacts other lives, macroscopic and microscopic, thus an ecosystem approach.⁷⁴ This criterion covers indirect harms caused to other beings when individual animals are harmed. Animals are shaped by their environment whilst also (re)shaping their environments. Lakes, rivers, rainforests, tundras, and other ecosystems include countless animals, plants, fungi, protista and monera (or other ways of classifying lives, beyond the five-kingdom model) which live and die in complex, multidirectional relations to one another. Wildlife trade permits harm not just to individual sentient beings (as long as they are not endangered) but to the entire ecosystems they are part of. Considering these diffuse harms to ecosystems (even if they do

<<https://www.smithsonianmag.com/science-nature/do-animals-experience-grief-180970124/>> accessed 17 September 2024; Melissa AL Reggente et al, 'Nurturant Behavior Toward Dead Conspecifics in Free-ranging Mammals: New Records for Odontocetes and a General Review' (2016) 97(5) *Journal of Mammalogy* 1428 <<https://doi.org/10.1093/jmammal/gyw089>> accessed 17 September 2024.

⁷¹ Susana Monsó, 'What Animals Think of Death' (2021) *Aeon* <<https://aeon.co/essays/animals-wrestle-with-the-concept-of-death-and-mortality>> accessed 17 September 2024; Jessica Pierce, 'The Dying Animal' (2013) 10 *Bioethical Inquiry* 469 <<https://www.eiu.edu/humanitiescenter/pdf/The%20Dying%20Animal.pdf>> accessed 17 September 2024.; Ross Andersen, 'Do Animals Know That They Will Die?' (2024) *The Atlantic* <<https://www.theatlantic.com/science/archive/2024/09/grieving-death-chimpanzees-thanatology/679750/>> accessed 17 September 2024.

⁷² One example of how crimes against animals can produce intergenerational harms are the genetic changes occurring in various species as a result of human nefarious interventions: for instance, ivory poaching has led to some African elephants evolving tuskless. See Shane C Campbell-Staton et al, 'Ivory Poaching and the Rapid Evolution of Tusklessness in African Elephants' (2021) 374(6566) *Science* 483 <<https://www.science.org/doi/10.1126/science.abe7389>> accessed 17 September 2024.

⁷³ Edith Brown Weiss, 'Climate Change, Intergenerational Equity, and International Law' (2008) 9 *Vermont Journal of Environmental Law* 615 <<https://scholarship.law.georgetown.edu/cgi/viewcontent.cgi?article=2637&context=facpub>> accessed 17 September 2024; Aoife Nolan, 'Inter-generational Equity, Future Generations and Democracy in the European Court of Human Rights' KlimaSeniorinnen Decision' (2024) EJIL: Talk! <<https://www.ejiltalk.org/inter-generational-equity-future-generations-and-democracy-in-the-european-court-of-human-rights-klimaseniorinnen-decision/>> accessed 17 September 2024.

⁷⁴ The ecosystem approach adopted by the Convention on Biological Diversity and by other treaties does not consider the criterion I suggest here, which recognizes a wide range of noncriminalized harms against sentient animals and how these harms impact other beings. Mainstream ecosystem approaches remain rooted in anthropocentrism. See Secretariat of the Convention on Biological Diversity, 'The Ecosystem Approach' (2004) <<https://www.cbd.int/doc/publications/ea-text-en.pdf>> accessed 17 September 2024.

not qualify as ecocide, which remains noncriminalized)⁷⁵ would expand the scope of environmental laws. As with my prior criteria, assessing complex harms across different kingdoms is challenging if not impossible. Even if establishing precise causal relations between harms to individuals, harms to species, and harms to ecosystems might not be possible, using the precautionary principle in cases of unquantifiable yet significant risk remains preferable. Protecting lives even in the absence of complete knowledge is better than lamenting losses when faced with irreversible damage.

These criteria for defining, preventing, and repairing harm also require a re-examination of the constructs we use to make sense of other lives. ‘Species’ is an anthropocentric construct and so are determinations of a species’ status: critically endangered, endangered, vulnerable, near threatened, conservation dependent, or of least concern.⁷⁶ Considerations on a species’ status do not simply reflect biological facts but are also shaped by evaluations of how a being serves human needs.⁷⁷ Most of us resonate with the protection of exotic, visually appealing species, but would mosquitoes, fleas, cockroaches, termites, rats, and other ‘pests’ enjoy similar protections if their species turned threatened? The ideal trajectory of a pest’s life is a premature death, as shown in my photo on the first page: for most people, a rat is not an individual but merely a representative of an unwanted species. As noted earlier on invasive species, the killing of some animals to (theoretically) protect others is central to the conservation and biodiversity regime.

‘Biodiversity’ thus remains a self-serving construct, shaped by how other lives can serve our needs and wants. In some cases, life and biodiversity are valued and protected; in many other cases, they are not. By contrast, compassionate conservation embraces principles different from those guiding environmental law: do no harm, individuals matter, inclusivity, and peaceful coexistence.⁷⁸ Compassionate conservation, an interdisciplinary field of theory

⁷⁵ Ecocide is not yet an international crime under the mandate of the International Criminal Court. However, several countries have criminalized various forms of environmental damage. Recently, the European Union Parliament and Council adopted a new environmental crime directive, which would criminalize cases comparable to ecocide (the new directive includes an expanded list of offences and new rules on prison sentences and fines). See Directive of the European Parliament and of the Council on the Protection of the Environment Through Criminal Law and Replacing Directives 2008/99/EC and 2009/123/EC (13 March 2024) <<https://data.consilium.europa.eu/doc/document/PE-82-2023-INIT/en/pdf>> accessed 17 September 2024.

⁷⁶ International Union for the Conservation of Nature, ‘IUCN Red List Categories and Criteria’ (2012) <<https://portals.iucn.org/library/sites/library/files/documents/RL-2001-001-2nd.pdf>> accessed 17 September 2024.

⁷⁷ The discourse and laws on conservation and biodiversity have been critiqued from multiple perspectives, including philosophy, law, biology, and other fields. For a discussion of the differences and hierarchies produced by the biodiversity discourse, see Audra Mitchell, *Revenant Ecologies: Defying the Violence of Extinction and Conservation* (University of Minnesota Press 2023).

⁷⁸ Marc Bekoff (ed), *Ignoring Nature No More: The Case for Compassionate Conservation* (University of Chicago Press 2013); Jenny Gray, ‘Challenges of Compassionate Conservation’ (2018) 21(sup1) *Journal of*

and praxis, recognizes that mainstream conservation programs can significantly harm wildlife with practices such as culling, captivity, and displacement. As shown in my prior section, these are routine in wildlife trade, in the management of invasive species, and other sectors. Compassionate conservation and other approaches which seek to integrate animal welfare/rights in environmental policies can be critiqued as impractical. While a maximalist, revolutionary approach is difficult to implement, my three suggested criteria seek to feed the imagination, to encourage reconceptualized beliefs, habits and economies towards a more ethical and compassionate relation to sentient nonhumans.

The legal regime of biodiversity is also shaped by colonial legacies and current neocolonial structures.⁷⁹ Most biodiversity is located in tropical and subtropical regions: Central and South America, sub-Saharan Africa, South and Southeast Asia are the most biodiverse places on Earth.⁸⁰ Whereas international environmental law agendas are primarily shaped by Northern, Western states with a history of colonizing or occupying many of these biodiverse regions and with incentives to continue profiting from these sites by either monetizing biodiversity for biomedical and recreation purposes, or by wiping it out to make room for more profitable ‘development’ projects: roads, residential and industrial buildings, animal agriculture. For an honest path forward, we need to determine why certain species matter and others do not, who decides this, and who (human and nonhuman) is worse impacted by environmental agendas. The biopolitics and necropolitics impacting humans and nonhumans remain opaque, insidious.

IV. Criminalizing Crimes

Our crimes against sentient beings are driven by a confluence of psychological, cultural, economic, and legal factors, all normalizing crime and impunity. Individually and collectively, we are conditioned to unsee and to remain complicit, through psychological mechanisms and governance approaches concealing and justifying our harmful acts. System

Applied Animal Welfare Science 34 <<https://www.tandfonline.com/doi/full/10.1080/10888705.2018.1513840>> accessed 17 September 2024; Christopher A Bobier and Benjamin L Allen, ‘Compassionate Conservation is Indistinguishable from Traditional Forms of Conservation in Practice’ (2022) 13 *Frontiers in Psychology* 750313 <<https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2022.750313/full>> accessed 17 September 2024; Simon Coglan and Adam PA Cardilini, ‘A Critical Review of the Compassionate Conservation Debate’ (2022) 36(1) *Conservation Biology* e13760 <<https://onlinelibrary.wiley.com/doi/full/10.1111/cobi.13760>> accessed 17 September 2024.

⁷⁹ Richard H Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600–1860* (Cambridge University Press 1996); Shawkat Alam et al (eds) *International Environmental Law and the Global South* (Cambridge University Press 2015).

⁸⁰ International Union for the Conservation of Nature, ‘Species Extinction — The Facts’ (2007) <<https://springbrooknaturecenter.org/DocumentCenter/View/749/Species-Extinction-05-2007-PDF?>> accessed 17 September 2024.

justification theory shows that people develop conscious and unconscious patterns to justify existing social arrangements they benefit from, thus rationalizing harm and complicity.⁸¹ This has been the case with slavery,⁸² with settler and extractive colonialism,⁸³ and other criminal structures which for decades or centuries were treated as normal and necessary. As many other cosmetic approaches to crime, the species-centric framework serves a palliative function: it makes us feel better about our crimes against nature by internalizing that protecting species compensates for crimes against countless individuals.

Noncriminalized criminality remains the norm in our treatment of nonhumans.⁸⁴ Industrial animal farming and wildlife trade, victimizing trillions of animals every year, are the main organized forms through which we confine, exploit, torture, and massacre nonhuman animals. As I have shown previously, these criminal sectors should be treated as a continuum between genocide and ecocide, not as normal, necessary, legal economies.⁸⁵ Current laws however allow these crimes: while genocide still holds the title of ‘crime of all crimes’ yet rests on a narrow notion of annihilation⁸⁶ which excludes

⁸¹ John T Jost, Mahzarin Banaji, and Brian Nosek, ‘A Decade of System Justification Theory: Accumulated Evidence of Conscious and Unconscious Bolstering of the Status Quo’ (2004) 25(6) *Political Psychology* 881.

⁸² Animal rights scholars and activists have often noted the many similarities between human and nonhuman enslavement, both in their manifestations and in their exculpatory mechanisms: Marjorie Spiegel, *The Dreaded Comparison: Human and Animal Slavery* (Mirror Books 1996).

⁸³ As shown in my prior work, unseeing (the denial and rationalization of crime) is central to the colonial enterprise in Palestine/Israel and elsewhere. See Rimona Afana, ‘Unseeing Settler–Extractive Colonialism: The “Blindness Epidemic” in the (com)Promised Lands’ (2023) 29(2) *Peace and Conflict: Journal of Peace Psychology* 126 <<https://psycnet.apa.org/record/2023-78410-005>> accessed 17 September 2024.

⁸⁴ Though criminalization is significant for preventing and repairing wrongdoing against humans and nonhumans, criminalization is tied to carcerality, a core feature of the retributive justice system. Captivity, with its associated physical and psychological harms, is thus central to ‘justice’ in the carceral state. As documented in my prior work, besides those held captive unfairly (captivity being often tied to torture and murder) such as prisoners of war, prisoners of conscience, trafficking victims, or the nonhuman victims of industrial animal farming and wildlife trade, even those legally imprisoned fall victim to the prison–industrial complex which, particularly in the US, profits immensely from captivity. See Afana (n 22).

On carceral systems and practices, see Lori Gruen and Justin Marceau (eds), *Carceral Logics: Human Incarceration and Animal Captivity* (Cambridge University Press 2022); Shreerekha Pillai (ed), *Carceral Liberalism: Feminist Voices Against State Violence* (University of Illinois Press 2023); Joe Sim, *Punishment and Prisons: Power and the Carceral State* (Sage 2009); Michel Foucault, *Discipline and Punish: The Birth of the Prison* (Pantheon Books 1978).

⁸⁵ Rimona Afana, ‘From Speciesism to Theriocide: Wildlife Trade and Industrial Animal Farming as Embodiments of the Genocide–Ecocide Continuum’ in Wendy Wiseman and Burak Kesgin (eds), *Lost Kingdom: Animal Death in the Anthropocene* (Vernon Press 2024) <<https://www.dropbox.com/scl/fi/n9wamr8p6f2tm0tx09710/Genocide-Ecocide-Continuum-Rimona.pdf?rlkey=47m9fdqpes4coa9dcv240og9x&dl=0>> accessed 17 September 2024.

⁸⁶ For how the narrow legal definition of genocide excludes many individuals and contexts, see Benjamin Meiches, *The Politics of Annihilation: A Genealogy of Genocide* (University of Minnesota Press 2019). However, this critique only briefly touches on the genocide inflicted on animals, as noted in my review: Rimona

nonhumans, ongoing ecocides remain noncriminalized. Another legal category, applicable to harms inflicted on nonhuman animals, is torture: here again the law denies sentient nonhumans the protections they should enjoy. The UN Convention Against Torture⁸⁷ only includes humans and, even for humans, torture is narrowly defined.⁸⁸ Also, though most countries have some anti-cruelty laws, these only cover a limited portion of the varied forms of cruelty routinely inflicted on animals.

As shown throughout this paper, the principles and priorities behind environmental law and animal rights law are different and sometimes at odds. Most environmentalists typically focus on the protection of ecosystems, species conservation and human health, while animal defenders care about the welfare and rights of individual beings.⁸⁹ The species-centric approach of the environmental conventions discussed attests the need for coordination between environmental law and animal rights law: environmental law needs to embrace a more critical and compassionate approach to nonhumans (particularly sentient animals) while animal rights law could integrate broader environmental concerns. Studies have covered what animal law can learn from environmental law,⁹⁰ a more established field legally and academically. Welcome here would also be efforts in scholarship and praxis on integrating animal rights concerns into environmental law. Also significant is understanding nature and nonhumans from the perspective of critical criminology and critical legal studies, which highlight how and why dreadful, large-scale crimes against sentient beings remain noncriminalized.

Since humans are similar to some nonhumans in their needs and capacity to suffer (from harms like displacement, abduction, captivity, torture, killing), we need to also recognize similar rights. Human rights are both individual and collective; the rights of a group are an extension of the intrinsic value and rights of the individual. It would not sound reasonable to only respect individual human rights if the human species is threatened with extinction.

Afana, 'Review of Benjamin Meiches, *The Politics of Annihilation: A Genealogy of Genocide*' (2021) 9(2) *State Crime Journal* 258 <<https://www.scienceopen.com/hosted-document?doi=10.13169/statecrime.9.2.0258>> accessed 17 September 2024.

⁸⁷ UN Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (adopted 10 December 1984, entered into force 26 June 1987) UNTS 1465 <<https://treaties.un.org/doc/Publication/UNTS/Volume%201465/volume-1465-I-24841-English.pdf>> accessed 17 September 2024.

⁸⁸ For a discussion of how the law excludes many forms of torturous violence, see Victoria Canning, *Torture and Torturous Violence: Transcending Definitions of Torture* (Bristol University Press 2023). In my review, I note that even such critical approaches (showing how narrow definitions of torture erase crimes and silence victims) exclude sentient nonhuman animals: see Rimona Afana, 'Review of Victoria Canning, *Torture and Torturous Violence: Transcending Definitions of Torture*' (2024) forthcoming in *State Crime Journal*.

⁸⁹ David Favre, 'Foreword' in Abate (n 16) xxxi.

⁹⁰ Abate (n 16).

Similarly, we cannot claim that if the human species is safe, we are entitled to derogate from fundamental individual rights. A similar principle can be extended to sentient animals: individual and collective rights can be conceptualized and implemented as a unit, not as a tradeoff.

Understanding the similarities between crimes against humans and against nonhumans can create compassion and solidarity. Currently, even those concerned with justice display moral inconsistency: a significant portion of human rights scholars and activists remain complicit in crimes against nonhuman animals and some of those committed to nonhuman rights are not as dedicated to human rights. This can be challenged by critical voices in scholarship, activism, litigation and legislation seeking to create bridges between environmental law, animal rights law, human rights law, and criminal law.⁹¹ While it will likely take generations to criminalize sectors profiting from crimes against sentient nonhuman animals, people's minds and hearts are gradually changing about nonhumans and our duties towards them, as attested by the multiple wins for animal rights in recent years, across different jurisdictions.⁹²

V. Conclusion

The law is shaped by what we consider normal and it determines what we normalize. Now we remain trapped in a vicious circle: our beliefs and habits shape anthropocentric, speciesist laws and these laws allow economies and lifestyles reliant on animal abuse. The species-centric approach defining many environmental laws is not sustainable nor ethical: it

⁹¹ These bridges between different branches of law can be inspired by the solidarity between social justice movements: the intersectional nature of injustices has led to synergies between different movements. See Sharon Doetsch-Kidder, *Social Change and Intersectional Activism: The Spirit of Social Movement* (Palgrave Macmillan 2012); Silke Roth, 'Intersectionality and Coalitions in Social Movement Research—A Survey and Outlook' (2021) 15(7) *Sociology Compass* e12885 <<https://compass.onlinelibrary.wiley.com/doi/full/10.1111/soc4.12885>> accessed 17 September 2024; Maneesha Deckha, 'Animal Advocacy, Feminism and Intersectionality' (2013) 23 *Deportate, Esuli, Profughe* 48

<https://www.unive.it/pag/fileadmin/user_upload/dipartimenti/DSLCC/documenti/DEP/numeri/n23/Dep_04.pdf> accessed 17 September 2024.

⁹² In many countries, entire ecosystems have been granted legal rights. Half of European countries have banned fur farming. New Zealand banned the export of live animals. Virtual zoos and circuses have been launched in different countries. Several European countries banned the killing of male chicks in the egg industry. Ecuador recognized the legal rights of wild animals. Several countries are introducing or expanding programs to reduce, refine, or replace the use of nonhuman animals in biomedical research. Hundreds of cosmetics companies have voluntarily ended animal testing. Many clothing brands are switching to plant-based leather. The vegan movement is steadily growing. All these developments indicate an awareness of and care for the suffering of individual animals, even if their species is not at risk.

normalizes crimes against trillions of sentient beings. Their physical and psychological suffering from displacement, captivity, torture, and murder is not that different from what humans would experience in similar circumstances. This should inform how we think of environmental laws and of our duties towards individual animals. A victim-centered approach — in law, scholarship, advocacy, and in everyday life — switches focus away from legal technicalities that do little to protect nonhuman animals, to a recognition of noncriminalized crimes (horrific and routine in many economic sectors involving animal abuse) and to an honest attempt to address them.