What is a wildlife trustee?
And how should one act?

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Executive Summary from Preamble through Section 4

Preamble

We began this project to explain a legal and moral duty to pass on the legacy of the Earth's biosphere unimpaired to future generations of all life. We are convinced the best hope for leaving an unimpaired legacy is a model of public trusteeship in which humans and nonhuman animals (hereafter all animals) are equal beneficiaries of that trust. We are convinced that a trustee will put the interest of the broadest public ahead of current users' private interests. We are convinced the broadest public can only be encompassed by recognizing that future generations of all living beings, current nonhuman animals, and current humans are all beneficiaries of the public wildlife trust.

We are convinced the rights, privileges, and responsibilities of those beneficiaries can only be vindicated by legal standing. We are convinced that a just, democratic wildlife trusteeship can only be fulfilled by all three branches of the U.S. government with a separation and balance of powers carefully designed to prevent substantial impairment of the trust or unjust outcomes for one beneficiary over another. This is not a proposal for animal rights insofar as we focus on imperiled wild animals. This is a proposal for improving justice, especially multispecies justice. Even incremental steps toward greater justice represent improvements. Therefore, we propose to begin hosting incremental steps, each of which brings greater justice.

1. The legal basis for the U.S. PTD and wildlife trusts

1A. Introduction to the U.S. legal basis for environmental public trusts

Public trust principles applied to the environment, including wild animals, go back to ancient laws of England and even Rome, some of which we inherited in U.S. jurisprudence since the American Revolution. During the 1960-1970 U.S. environmental movement, the public trust doctrine (PTD) was revived and implemented in U.S. laws.

1B. What is the public trust doctrine, and where does it come from?

The wildlife trust is a legal doctrine based on public trust principles that are well-established in state and federal statutory and common law. Applying the public trust doctrine to wildlife governance is a historically-grounded, legally enforceable means of protecting the human and nonhuman interest in preserving a healthy environment for future generations of all life. The trust contains all components of the biosphere (nature).

1C. PTD in federal law

The U.S. government is the trustee of an intergenerational trust. The trustee has a legal duty to preserve the trust from substantial impairment using constitutional police powers and to repair damage to the trust when needed. The U.S. Supreme Court declared the latter to be principles of common law and that the environmental trust includes all components of the biosphere (nature), including wild animals. The public trust doctrine has been implemented through legislation, executive action, and court precedent across the United States since 1842.

1D. Applying the public trust doctrine to wildlife

The corpus (body) of the trust includes all components of nature. Also, humans and other animals are all beneficiaries of the trust whether currently alive or as future generations of all life.

1E. Advantages of the PTD over the current model

Rather than a hunter-preferential system of fee-for-service, wildlife trusteeship has been assumed to be fiduciary. At least, wildlife trusteeship is a duty of care by the prudent man standard demanding that the government account transparently with sophisticated measures of the status of the trust and its use. That view also holds that not all uses of wildlife are equal because some uses are in the public interest, while

other private uses are of lower priority, and some public and private uses are better at preserving the asset for future generations than others.

2. How should a wildlife trustee act?

2A. The ethics and moral authority for our wildlife trustees

The question of how a wildlife trustee should act is a question of ethics: multispecies justice, intergenerational justice and equity, and justice for all living animals. The first, multispecies justice arises because humans are animals. That single fact leads to the inescapable conclusion that we cannot treat other animals as inferior in moral terms. Our excellence in moral reasoning means the opposite. We have a greater duty and responsibility to deal with other animals justly. Therefore, other animals deserve legal standing at a minimum. Our ability to rationalize does not absolve us of responsibility to fellow animals who seek their own good wherever nature or luck has placed them. The second moral duty is to future generations of all life. We cannot rationalize impairing the legacy simply because we do not know what futurity will need or because we do not know what futurity will look like. We cannot define futurity more narrowly than future generations of all life because that would rob future generations of the perfect equality declared by SCOTUS in *Illinois Central Railroad Co. v. Illinois*, 146 U.S. 387, 452 (1892). The third moral duty is just treatment of all currently living beneficiaries of the trust. Public interest in its broadest sense takes priority over private uses, and the numberless nonhuman animals outnumber all current human users. The latter prioritization clearly indicates why the preponderance of benefits for unimpaired nature must be preserved and how small the share allocated specifically for important human survival needs must be. As a practical matter, we propose the wildlife trustee to redress the wrongs of several centuries.

2B. Identity of trustees varies, and duties are not yet clear under U.S. law

Wildlife trustees are appointed or elected officers of legitimate U.S. governments using constitutional police powers to prevent substantial impairment of the trust and repair it when it occurs. When dealing with beneficiaries, the trustee also should use prioritization. First comes preservation; second comes use. In numerical order: first, future generations outnumber current ones; organisms whose survival depends on unimpaired nature outnumber those who depend on its use for other purposes (e.g., recreation, profit); and last come the private users of nature. Officers of the executive and judiciary must work in collaboration to exert constitutional police powers to prevent substantial impairment —to monitor human uses, stop uses that will impair, interdict illegal uses, and forecast imminent threats to the corpus of the trust — because this role demands fact-finding, investigation, and prosecution. The legislative branch of governments should issue permits after receiving up to date information on the status of usable assets. Legislative agents should be specialized in setting timing, methods, participation, and limits on use. Obviously our division of wildlife trustee duties into separate enforcement, information-gathering, and decision-making offices is dissimilar

from current governance structures in U.S. wildlife management. Private trustees have a narrowly constrained role in our vision.

2C. Contrasting wildlife governance in the U.S. today

Current state and tribal governance of the wildlife trust is dissimilar to our vision. Commissioners are delegates of legislative and executive branches typically but lack requirements for training in trusteeship or an oath to uphold the public interest above all others, including their own personal interests. Furthermore, appointed officials often have no trustee duties and can cater to special interests. Research is easily subverted to financial or political interests, not public interest.

2D. The prudent person standard and duties of trustees.

A public trustee must act selflessly to follow the directions of the trust (preservation before use, future generations before current ones, other animals before current adult humans). The standard for allocation of trust assets to current users should be a fiduciary standard, specifically the prudent person standard under which the trustee must act as if they were acting on behalf of their own descendants.

3. Wildlife trusts have special attributes

3A. Wild animals are not like non-living assets.

By the same principle of justice that all humans, no matter their age or capabilities, are accorded moral standing and legal standing, so too are future generations of all life and other species alive today accorded standing. Humans are not the only beings deserving moral consideration, and it is our very exceptionalism in moral reasoning that forces this conclusion upon us. Therefore, the wildlife trust contains its beneficiaries (all animals), and the trustee must protect any component whether living or nonliving from substantial impairment. Therefore, the trustee's primary duty is to imperiled animals with a priority on preserving those for future generations of all life.

3B. Voiceless animals include many humans.

Many and probably most humans are voiceless, given that unborn generations depend on us to preserve the planet and the legacy of nature we are now entrusted to keep. The principle of intergenerational equity informs us that we cannot steal that legacy FROM future generations. Because the voiceless have these rights, so too do other animals. We cannot now impose on them our views of anthropocentrism or human domination of the planet. That would be a moral injustice of the greatest sort.

4. Controversies over wildlife trusts

4A. Departing from the status quo

The status quo view shares with us a respect for public trust doctrine and a love of wildlife. The similarities end there as we explain why the status quo view in U.S. wildlife agencies and their allies is an anthropocentric worldview that confers priority on hunters and fishers and their allies. We explain why this is illegitimate (inconsistent with the law) and immoral (inconsistent with our vision of wildlife trusteeship ethics).

4B. Challenges by different visions of wildlife trustees

Other commentators have promoted different views of wildlife trusteeship than ours despite many similarities in worldview. The principal differences seem to be our emphasis on the U.S. legal doctrine of the PTD and our insistence that a wildlife trustee is first and foremost focused on preserving imperiled wild animals for the benefit of future generations. We also diverge on the plausibility of private wildlife trustees playing a major role without first gaining legal standing. We may differ in our view of domestic animals and introduced non-natives, but commentators with alternative views may not yet have made their positions clear on these animals.

4C. Should our wildlife trustee preserve unique genotypes?

We conclude that imperiled genetic diversity in other animals is important to the wildlife trustee, but we fall short of advocating for the preservation of lineages based on unique genomes in an otherwise non-imperiled population. Although we elect to defer to the discretion of future wildlife trustees on this issue, we offer guidelines that would protect non-natives in a new ecosystem if their native ecosystem were imperiled. We also suggest that unique sequences of genes within an otherwise secure (not imperiled) population do not seem to deserve priority for the wildlife trustee we envision.

What is a wildlife trustee? And how should one act?

Preamble

We began this project to explain a legal and moral duty to pass on the legacy of the Earth's biosphere unimpaired to future generations of all life. We are convinced the best hope for leaving an unimpaired legacy is a model of public trusteeship in which humans and nonhuman animals (hereafter all animals) are equal beneficiaries of that trust. We are convinced that the trustee will put the interest of the broadest public ahead of current users' private interests. We are convinced the broadest public can only be encompassed by recognizing that future generations of all living beings, current nonhuman animals, and current humans are all beneficiaries of the public wildlife trust. We are convinced the rights, privileges, and responsibilities of those beneficiaries can only be vindicated by legal standing. We are convinced that a just, democratic wildlife trusteeship can only be fulfilled by all three branches of the U.S. government with a separation and balance of powers carefully designed to prevent substantial impairment of the trust or unjust outcomes for one beneficiary over another. This is not a proposal for animal rights, insofar as we focus on imperiled wild animals. This is a proposal for improving justice, especially multispecies justice. Even incremental steps toward greater justice represent improvements. Therefore, we propose to begin hosting incremental steps, each of which brings greater justice. We explain the legal basis for wildlife trusts and trusteeship in section 1, the moral justifications for the ethical conduct of the wildlife trustees we envision in Section 2, and special attributes of wildlife trusts and controversies in Section 3.

1. The legal basis for the U.S. PTD and wildlife trusts

1A. Introduction to the legal basis for environmental public trusts

The 'environmental decade' in the U.S. started in the mid-1960s and produced dozens of environmental laws. Beginning with the National Environmental Policy Act of 1969, Congress enacted significant statutes, including the Endangered Species Act, the Clean Air and Water Acts, and the Animal Welfare Act. Some of these environmental statutes have been weakened since. In the face of the climate crisis and sixth mass extinction, "We need a new frame that transforms [agency] discretion into obligation, enforceable within the system of checks and balances that our Constitution offers." (1). The public trust doctrine (PTD) is a politically feasible means to achieve this end because it is well-established in common law, simplifies the current statutory framework to focus on bedrock conservation principles, and creates a clear mechanism for courts to evaluate wildlife controversies.

B. What is the public trust doctrine, and where does it come from?

The public trust doctrine (PTD) instructs courts and other branches of the U.S. government that natural resources within a sovereign territory are held by the sovereign for the benefit of its citizens (2). This principle dates back to the Roman era and was an accepted doctrine of English common law (Case of the Swans K.B. 1592). Joseph Sax is widely credited with reviving the 19th century U.S. PTD as a tool for the U.S. environmental movement (2-4), which subsequently spread worldwide (5). Since then, Mary C. Wood and Michael C. Blumm are credited with articulating the 21st century PTD for climate and wildlife trusts respectively (1, 6-10 and references to Blumm above), with recent applications to gray wolves, predators generally, and any wild animal (11-15).

The PTD recognizes that natural resources are intrinsically valuable to all and creates a mechanism for representing this value within the political system. In practice, the PTD makes government agents caretakers of the biosphere (nature hereafter). The contents of nature as a trust are all environmental components handed down to humans from prior generations — the "corpus" of the public trust. The beneficiaries of the trust are the U.S. public since the American Revolution according to the U.S. Supreme Court (SCOTUS) decision in *Martin v. Waddell*, 41 U.S. 367 (1842). Understanding that every person's paramount right to life depends initially on healthy lands and waters, the PTD makes the government responsible for preserving nature in perpetuity as with other guarantees of the U.S. Constitution.

C. The legal basis for the public trust doctrine

In the United States, the public trust doctrine is well-established in common law. The common law is derived from "custom and usage" and court precedent, and is therefore largely governed by the judicial branch (*Strother v. Lucas*, 37 U.S. 410 (1838)). For this reason, the PTD necessarily incorporates judicial, as well as legislative and executive, governance. We elaborate on the implementation of the PTD in section 2A. Because the Tenth Amendment reserves all powers not delegated by Congress to the states, the common law governing disputes that do not involve "federal interests" is primarily created by the states (*Erie R. Co. v. Tompkins*, 304 U.S. 64, 79 (1938)). The case declares that generally, federal courts must respect state common law in public trust disputes.

Wildlife, in particular, are considered to be under the jurisdiction of the states in most cases (*Geer v. Connecticut*, 161 U.S. 519 (1896)). The federal government generally must respect state jurisdiction over wildlife, except when a controversy involves federal lands or affects interstate commerce (*Hughes v. Oklahoma*, 441 U.S. 322 (1979)). The PTD has therefore been most fully developed in state law (16) and affirmed incidentally in federal courts. The PTD in federal law is discussed in more detail in section 1D.

The PTD is established law in 48 states to varying degrees (16, 17). In some states, the PTD is enacted by statute, while others apply the PTD through common law or constitutional provisions (e.g., Alaska Const. Art. 8.2) The state, as trustee of the public trust, has an "affirmative duty" to "protect public trust uses whenever feasible." (*Center for Biological Diversity, Inc. v. FPL Grp., Inc.*, 166 Cal. App. 4th 1349, 1366 (2008)). Concerning wildlife, the PTD dictates that "title to animals… is held by the state, in its sovereign capacity in trust for all its citizens." (*State v. Dickerson*, 356 Ore. 822 (2015) at *19). Even in states with strong public trust doctrines, however, the practices of state agencies frequently differ from the duties of trustees relating to wildlife (18).

D. The public trust doctrine in federal law

The U.S. Supreme Court declared the basic elements of the federal PTD in *Martin v. Waddell*, 41 U.S. 367 (1842). The federal government acts as the trustee, safeguarding the corpus of the trust, which is comprised of nature in federal control. The state retains legislative authority over nature in state control, within constitutional limits (*Illinois Central Railroad Co. v. Illinois*, 146 U.S. 387, 452 (1892)). That declaration is still good law today (11) and holds that all legislatures enjoy perfect equality with their predecessors and successors. Therefore, the public trust is permanent and can never be substantially impaired by grant, conveyance, permit, etc. Many federal statutes currently in force invoke the public trust doctrine, imposing a legal duty for the government to "fulfill the responsibilities of each generation as trustee of the environment for succeeding generations." (National Environmental Policy Act, 16 §

4331(b)(1)). Also, U.S. Congress codified preservation of nature for future generations in creating specific agencies. Among them are the National Park Service and its 1916 Organic Act, 54 U.S.C. § 100101(a): "The Secretary, acting through the Director of the National Park Service, shall promote and regulate the use of the National Park System by means and measures that conform to the fundamental purpose of the System units, which purpose is to conserve the scenery, natural and historic objects, and wild life in the System units and to provide for the enjoyment of the scenery, natural and historic objects, and wild life in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

In the courts, when a controversy involves federal public lands, the federal government serves as the trustee of the wildlife trust (*Hunt v. United States*, 278 U.S. 96 (1928)). In practice, the federal government has often deferred to state wildlife governance (19). Because wildlife conservation is "a national interest of very nearly the first magnitude," the federal government may also enforce the wildlife trust when it affects inter-state commerce and international law (*Missouri vs. Holland*, 242 U.S. 416 (1920)).

The duty of the government as trustee is to prevent substantial impairment of the trust (*Illinois Central*, 146 U.S. at 452). Therefore, no grant, conveyance, title, or lease of land, water, or components of nature may be permanent and irrevocable under federal law. U.S. governments are authorized to use constitutional police powers to enforce protections for the public trust (*Hughes v. Oklahoma*, 441 U.S. 322 (1979)). The government has an affirmative duty to prevent impairment and regulate use of natural resources, including wildlife (*Mountain States Legal Foundation v. Hodel*, 799 F.2d 1423 10th Cir. (1986)). Federal courts have imposed an additional duty of the trustee to seek damages and reparations for uses that substantially impair the trust (*United States v Burlington Northern Railroad Co.*, 710 F. Supp. 1286 D. Neb. (1989)).

E. Applying the public trust doctrine to wildlife

To adequately protect the wildlife trust, wildlife should be treated as beneficiaries of the trust, in addition to its corpus. Wildlife are not passive resources, such as water or air, but intelligent (sapient), feeling (sentient), and socially organized beings within their populations. Further, the human interest in access to natural resources may sometimes compete with wildlife interests in the same.

Wildlife, as sentient beings, are distinct within the trust corpus. In this case, the PTD may also serve as a guardianship to voice the interests of wildlife who are otherwise incapable of protecting themselves in court. Doing so addresses the fact that the corpus contains sentient beings, as well as the abiotic (non-living) components of nature that

support life from the atmosphere down to the subsoil rock of the planet). Trust principles of fiduciary relationship provide a framework to apply the PTD to sentient wildlife.

Regarding fiduciary trusteeship, U.S. law declares a number of paramount principles of conduct. The trustee owes a duty of prudence, prioritizing preservation over expenditures. The 'prudent man' standard is often applied to the conduct of fiduciary trustees, and this seems appropriate for wildlife trusteeship also (20). The prudent man standard in brief holds that the trustee must treat the assets held in trust as if the trustee was protecting their own assets and values for themselves and their heirs. The trustee must also act selflessly when making decisions about preservation or use and when allocating the benefits of use. A trustee must also treat all beneficiaries equitably, without prioritizing certain privileged groups. Finally, the trustee must account transparently, in a sophisticated manner, and continuously for uses and status of the trust assets. We detail trustee conduct further in Section 2.

Beneficiary relationships in trust law have never been restricted to citizens or current adults or even to humans by SCOTUS or the U.S. Congress (2). Courts have named several categories of public trust beneficiaries, listed here from highest number of beneficiaries to fewest:

First in priority: Future generations (of all life) which likely outnumber the below;
Second in priority: Current living organisms, who benefit from the preservation of diversity and a healthy ecosystem; and
Third in priority: Current users of natural resources who seek to privatize benefits

In our view, the number of beneficiaries in each of these three categories should determine how much weight it should be given in government actions as trustee. This order reflects the overarching priorities of the trustees to preserve the corpus of the trust unimpaired for current and future generations of the U.S. public. That current consumers of natural resources constitute the smallest portion of trust beneficiaries also demonstrates the need for trustees to enforce their duty to regulate current uses of nature.

F. Advantages of the public trust doctrine over the current model

In current state governance, the wildlife trust is most often invoked in service of the familiar North American Model. However, "the model …has also been incorrectly referred to synonymously with particular funding mechanisms and tied exclusively to hunting." (21). As currently enforced, the North American Model has been used as justification for the "right to harvest" wildlife through hunting and fishing rather than to protect the public interest in a diverse wildlife population (18, 22). This "trust" fails to

acknowledge humans' unique role as beneficiaries of the trusts, components of the natural environment the trust protects, and the most serious threat to the health of the trust. Historically, humans have accelerated the background 'natural' rate of extinctions since the Industrial Revolution, transforming all planetary ecosystems and working massive changes in health of ecosystems from molecular to global levels. Current threats to the corpus of the trust virtually all come from human uses of nature. The main concern of a wildlife trustee under U.S. law therefore must be with regulating current uses of wildlife and all components of nature for preservation of the corpus of the trust for future beneficiaries. Nor should the trustee be overly concerned by competition from nonhumans with the U.S. public. Competition which might arise from wildlife attacks on people, damage to crops, livestock, etc. is addressed in Section 3.

The hunter-harvest construction of the North American Model continuously takes possession of wildlife from the corpus of the public trust and delivers them into the private possession of individuals. This taking reduces the public interest in unimpaired nonhumans. While legally permissible, the take and harms must be in proportion to the very small fraction of the beneficiaries who wish to use the trust in this manner. U.S. governments have a responsibility to protect wildlife held in trust for the benefit of all human and nonhuman beneficiaries, rather than prioritizing the interests of certain privileged current users.

Rather than a hunter-preferential system of fee-for-service, wildlife trusteeship has been assumed to be fiduciary (23), or at least a duty of care by the prudent man standard demanding that the government account transparently with sophisticated measures of the status of the trust and its use (2). That view also holds that not all uses are equal because some uses are in the public interest, while others are private uses which are of lower priority, and some public and private uses are better at preserving the asset for future generations than others.

The wildlife trust is a legal doctrine based in public trust principles that are well-established in state and federal statutory and common law. The public trust doctrine has been implemented through legislation, executive action, and court precedent across the United States. Applying the public trust doctrine to wildlife governance is a historically-grounded, legally enforceable means of protecting the human and nonhuman interest in preserving a healthy environment for future generations of all life (futurity).

Next we address trustee conduct and how beneficiaries can hold them accountable.

2. How should a wildlife trustee act?

2A. The ethics and moral authority for our wildlife trustees

The question of how a wildlife trustee should act is a question of ethics. Although we grant that a trustee might perform a legal duty (Section 1) without agreeing with the moral justification for it, we think the two reinforce each other. Articulating the moral justification for our vision of a wildlife trustee thus strengthens the argument and perhaps the resolve of future wildlife trustees we envision. There are three intertwined moralities of the wildlife trustees we envision: justice for other animals, intergenerational justice and equity, and justice for all living animals.

Humans are animals. That fact is irrefutable and has implications for how we treat other animals. Our capabilities, capacity for moral reasoning, and our relationship to other life might differ quantitatively from other animals but not qualitatively. The mere fact of excellence in a capability does not set us apart. For example, many animals have more sensitive sensory apparatus, are faster, stronger, etc. Such excellence of a shared ability is not a basis for arguing for separate moral consideration. Even if our ability to reason is deemed qualitatively different from other animals, some other animals have capabilities we do not (e.g., echolocation, seeing ultraviolet, etc.). None of those qualitative differences are a reasonable basis for claiming special moral consideration. We realize we are dismissing a long history of claiming human exceptionalism due to language, intellect, morality, etc. Indeed, it is precisely because humans have evolved moral reasoning that we argue we must use it to recognize that other animals have a moral relationship to us that we cannot ignore. We are uniquely able to distinguish right from wrong, good from bad. And even if we were not, the next paragraph explains why philosophers have agreed upon moral standing for other animals.

Our ability to distinguish good from bad should make us doubly aware of how other animals perceive and conceive of the good they can achieve and the wrongs that can be done to them by others. Just as each human has a right to moral standing simply by being here (Kant's argument for moral standing of some humans), so too do other animals. Other animals simply have a right to be where luck and nature placed them, as Korsgaard (24) put it. We would no more strip a human infant, someone incapable of speech or clear thought, or anyone else of their right to be here than we would a voiceless animal incapable of clear speech or thought. When we rid ourselves of a notion of human exceptionalism, we must accept Christine M. Korsgaard's (24) argument that we have a duty to recognize and respect the moral standing of animals.

Setting aside the definition of "animal", we recognize irrefutable evidence that other animals perceive and understand that their own actions affect them as good or bad. Each animal is also capable of perceiving that other beings' actions towards them can be good or bad from the viewpoint of the animal in question. If we do wrong to animals,

we should know better given our moral reasoning. Our ability to rationalize does not absolve us of responsibility to fellow animals who seek their own good wherever nature or luck has placed them.

We do NOT equate the above with fundamental rights necessarily (because that needs far more definition), but certainly with legal standing to vindicate animal interests in life, sustenance, liberty, etc.

In addition to the duty to other animals, we are convinced of a moral duty to future generations of all life. That is sometimes called intergenerational equity or justice, seventh generation thinking, etc. (25) (7, 25-39). In such moral systems, we, the current generation, have no right to deprive future generations of an irreplaceable component of nature that was handed to all of us by the prior generation. Intergenerational equity has been declared by SCOTUS in *Illinois Central*, 146 U.S. at 452, as perfect equality of legislatures. Namely, a U.S. legislature of any time cannot take away rights and privileges of a future legislature. This duty to future generations has some important contours and constrains us today.

We need not understand the wishes, desires, or needs of futurity as a prerequisite to preserving the legacy unimpaired. The analogy would be for a parent to spend the child's inheritance by rationalizing that the parent does not know the needs or desires of the children. We leave what we have and hope that futurity can use it to benefit themselves and their own children. Also, identifying future generations of humans is both unjust and short-sighted. We, the present generation of adults, cannot define who the beneficiaries will encompass in some distant future. We cannot even be sure the seventh generation and beyond will be genetically the same as we are. Furthermore, the next generation may legislate to grant personhood to other animals, or may amend the U.S. Constitution to do so. By *Illinois Central*, we cannot take that possibility away from them. Therefore, we cannot decide permanently for all time who are the beneficiaries of the trust. This, too, justifies an expansive view of other animals as our descendants and the beneficiaries of the trust.

The moral duty we conceive is to prioritize the preservation of the most "irreplaceable" components of the trust. Although we grant defining irreplaceable, in the context of preventing substantial impairment, will stretch the current science and engender arguments about uniqueness, we proceed nevertheless. Regardless of where one places the threshold for irreplaceability, the duty is to preserve those components unimpaired for futurity. Being unsure of where the boundary lies does not stop us from acting to prevent impairment of many irreplaceable components at risk right now. The

hope for some future genetic de-extinction is not a reason to delay as that hope is still very distant and uncertain.

Third, the wildlife trustee we envision has a moral duty to support the survival needs (life and liberty) of current living users of nature's trust. We discuss these in detail in Section 2B and C below but for now point out that futurity outnumbers those currently living by definition. Also the public interest in life and liberty for each individual outweighs the private interest in using nature for trivial purposes such as recreation, sport, or pleasure. Therefore, the wildlife trustee we envision will allocate a very small portion of nature's trust for private uses with priority for uses which are necessary for life and liberty. Here, by liberty we mean freedom from the will of another over our movements, lives, or well-being, not the unfettered freedom to do what we wish.

Finally, we seek a code of conduct based in law to authorize action based on the preceding moral responsibilities. Therefore, we enjoin certain actions by exploiting humans and encourage certain actions by protective humans, monitored and enforced by the wildlife trustees we envision. We do not choose to meddle in nonhuman interactions with other nonhumans as Nussbaum has suggested we might. Rather we agree with the moral reasoning of Korsgaard (24) that only humans are capable of organizing into a political society that can articulate and enforce moral codes of conduct that recognize the moral standing of nonhumans. Also, as a practical matter, we propose the wildlife trustee to redress the wrongs of several centuries.

The wrong we seek to right is the three centuries at least of human wounds to nonhumans through greed, profit-seeking, trivial recreation, and other actions unnecessary for individual human survival, reproduction, or well-being. We accept that our concerns situate us in a time and place where our primary concern is now human damage to the biosphere, our primary injunction is against such human damage, our envisioned trustees' protective actions are for nonhumans, and our trust beneficiaries of greatest concern are future generations of all life. One day such a wildlife trustee may not be needed, rendering our moral responsibilities and pragmatic criteria irrelevant. We welcome such success that our writings become less relevant.

2B. Identity of trustees varies and duties are not yet clear under U.S. law

In describing the duties and conduct of wildlife trustees, we follow the moral duties above (to other animals, especially imperiled ones, and to future generations) ahead of current human users of wildlife. The legal duties of trustees reflect the declarations of SCOTUS on the trustee duty to use constitutional police powers to prevent substantial impairment, which, in modern parlance, is often imperiled, threatened, or endangered species. Note imperiled organisms could include organisms that are not animals,

thereby going beyond our definition of all other animals as beneficiaries deserving moral standing under human justice. There is no contradiction in advocating for the prevention of extinction for organisms whom the trustee does not represent (i.e. non-animals) because other lives may depend on those imperiled species.

Humans have the ability to advocate for other animals in court, once other animals are granted legal standing. The wildlife trustee we envision is such an advocate. Because the wildlife trustee is an officer of a duly elected, constitutionally-authorized democratic government, this wildlife trustee has police powers, which in turn authorize the trustee to bring civil and criminal actions against defendants. The remainder of this section addresses the conduct of such trustees.

When dealing with beneficiaries, the trustee also should use prioritization. First comes preservation; second comes use. Also, we keep in mind the relative numerical preponderance of different beneficiary categories: future generations outnumber current ones, organisms whose survival depends on unimpaired nature outnumber those who depend on its use for their purposes; and last come the private users of nature. The three categories of beneficiary and the varied duties of government wildlife trustees require role specializations following separation and balance of powers among branches of the U.S. government.

The duty to preserve the corpus of the trust unimpaired is best served by agents with law enforcement capabilities with no role in the initial allocation or permitting of private uses. That separation permits their independence, so they are not beholden to powerful, moneyed user groups. In our view, these agents should be deputies of courts or prosecutors. They should have the authority and wherewithal to monitor users and uses, stop uses that will impair, interdict illegal uses, and forecast imminent threats to the corpus of the trust. Officers of the executive and judiciary must work in collaboration to exert the constitutional police powers to prevent substantial impairment —to monitor human uses, stop uses that will impair, interdict illegal uses, and forecast imminent threats to the corpus of the trust — because this role demands fact-finding, investigation, and prosecution.

The legislative body should issue separate funds ear-marked for the judicial oversight of enforcement and separately for the executive branch functions described above. After receiving up-to-date information on the status of usable and imperiled assets in the trust, the legislative branch would be free to issue permits for use by current humans. The role of issuing permits is best done by agents specialized in setting timing, methods, participation, and limits per user (currently called harvest). The legislative branch, as most representative of the current adult humans in the public, is best

equipped to allocate permits and privileges among constituents. The legislative body appointed to collect information from the judicial and executive branches of wildlife trusteeship would integrate information to set current use levels and alter regulatory mechanisms, thereby preserving separation of powers and a balance of power among branches. We acknowledge the potential problem that a legislature at odds with the judiciary or executive branch could starve its rivals by withholding funds. Therefore, in our view, the executive branch budget for law enforcement and prosecutions should not distinguish human criminal and civil law from wildlife trust law — at least at the level of legislative appropriations. There remains an issue of funding research on the wildlife trust, to which we return below.

The legislative branch should have no role in estimating the status of the assets in the wildlife trust (and elected officials generally have no expertise in this).This should instead fall to a professional corps of career experts with executive branch regulatory authority insulated from capture by interest groups. The duty to monitor health and status of the assets should fall to a body with both scientific monitoring capabilities and skills in working with advocates of interest groups and the broad public. The latter duties entail clear communication skills and state-of-the-art research techniques.

Obviously our division of wildlife trustee duties into separate enforcement, information-gathering, and decision-making offices is dissimilar from current governance structures in U.S. wildlife management. However, most states maintain all three arms we summarize above (law enforcement offices, wildlife managers, and decision-making bodies such as commissions). Reconstituting these to be semi-autonomous and accountable to different branches of the state or tribal government might not require as much statutory change as one might expect. The advantages of our suggestions outweigh the disadvantages of their novelty because the separation of powers embodied in our suggestions will help to ensure a wildlife trusteeship arrangement that is less open to corruption, political capture, illegal or unsustainable use of wildlife assets.

We are aware that self-appointed, private trustees for future generations or current nonhumans already exist. Perhaps the first was Dr. J.E. Hansen in *Juliana v U.S.*, 947 F.3d 1159 (9th Cir. 2020); for a chronology of this historic case see (40), accessed August 2025. Perhaps the first self-proclaimed wildlife trustee was Dr. W. S. Lynn in a private firm's contracted "Nationwide conversation on wolves". In our framework, a private wildlife trustee would have to be formally delegated the authority of a branch of government with wildlife trustee duties (see next paragraph). Otherwise, the private wildlife trustee is only a self-proclaimed advocate for future generations or current nonhumans. As such, the private wildlife trustee faces two serious obstacles in our

view. For one, the private wildlife trustee must strive to disentangle their personal professional interests from the interests of futurity or other animals. That may be difficult if they are engaged by government or by a private entity by contract or privilege rather than legally. Second, to obtain legal recognition, under current U.S. law, requires establishing “standing” to petition the court, or showing” injury in fact”, which for a private trustee would require proving they represent an injured nonhuman or future human. Demonstrating that might be a challenge without articulating a personal or organizational interest. That articulation might produce a competing interest. In other words, any injury felt by a wildlife trustee that would award legal standing might be a personal or professional loss irrelevant to nonhumans or future generations. The above conditions capture an ongoing controversy about wildlife trusteeship we address in Section 3.

In our framework, a private trustee might be authorized if formal delegation of government trustee duties were to be codified and overseen by the relevant branch of government. Thus a private wildlife trustee might be engaged to act on behalf of one of the branches of government to fulfill that branch’s trustee duty. However, a private trustee could never perform all the duties of trusteeship given separation and balance of powers. A duly appointed, private wildlife trustee with legal standing might also serve as defendant in its sovereign capacity, we presume. Therefore, we anticipate that private wildlife trustees may arise under the delegation doctrine, but they should resemble and act like government wildlife trustees. This is not to say private trustees for wildlife have no role. They can model appropriate conduct and serve a public information role.

2C. Contrasting wildlife governance in the U.S. today

To understand the higher standards of trustee duty that we advocate, we think it useful to summarize how current wildlife trusts are managed by states and tribes in the US. Currently, a body of a handful of individuals, often named a commission, exerts oversight or supervision over a wildlife agency in conjunction with one or both the executive or legislative branches. The judicial branch adjudicates cases and controversies arising from systems of wildlife governance. Commissioners are almost always appointed by one or both the executive (e.g., governor) or legislative committee, from members of the public, with political motivations being paramount. Occasionally, some minimum credentials are required of candidates for commissions. We are not aware of a single jurisdiction in the U.S. that requires a commissioner to receive training in trusteeship. Furthermore, in our experience, contemporary wildlife agencies do not hire staff who are trained in intergenerational equity or wildlife ethics or the philosophy of trusteeship, and only recently have commissions begun to hire staff trained in the human dimensions of wildlife or neutral facilitation of public meetings (41-45).

If our more complete overhaul cannot be achieved, an incremental improvement would be a statutory requirement that candidate commissioners take a training course in trusteeship, pass a credential in such, then swear an oath to uphold the public interest in the wildlife trust. Without that three-step process, there is little accountability. Also without the above credentials for commissioners, there is little or no direct connection between wildlife trusteeship and the second tier of decision-making in U.S. wildlife governance (the first tier being the elected branches).

Commissions order wildlife agencies to take (or not take) official actions via regulations, rules, or similar. Few if any commissioners are held to a standard of selflessness; therefore their own personal and private organizational interests surface in orders to wildlife agencies. Active branch wildlife agents carry out policy, implement rules, enforce regulations, monitor wildlife, issue permits to users, issue funds for research, and inform the public. Those varied functions create competing interests inevitably, which individual appointed agents must navigate without trustee training or an enforceable code of conduct as trustees. The fundamental conflict of interest lies in the agency receiving revenues from permits for its own operation, so the wildlife trustee is not selfless, and then catering to the moneyed interests that can pay for permits.

Another conflict of interest would arise if funds for research meant to assess the status of the asset were instead diverted to politically acceptable topics or results (13, 46-48) (49, 50). If politics dictate some change in priorities in which uses predominate over preservation and current users predominate over futurity, then politics might subvert the trustee's duty to preserve for futurity. Likewise, research can be subverted by allocating funds to researchers who will align with policy-makers, e.g., consider predator science in the U.S. (50-61). Similarly, the lion's share of funding can be allocated to research on humans and animals aligned with political interests or agency preferences (e.g., more research on hunters, trappers, and anglers) than on preservation interests. A recent trend in U.S. wildlife funding investment is to invest in shooting ranges, hunter recruitment and retention, and education to boost the numbers of hunters (62, 63). Such investments are contrary to wildlife trusteeship as we explain next.

2D. The prudent person standard and duties of trustees.

Trustees must treat all beneficiaries even-handedly and with a duty of care for the trust assets. The prudent man standard (hereafter prudent person standard) and the duty of care imposed on trustees, whether fiduciaries or guardians of voiceless, do not much resemble contemporary U.S. wildlife decision-makers.

Obviously, the first step of the wildlife trustee we envision will be to clamp down on current human overuse of nature. Once that is reduced to a trickle, the major task of

determining when and where substantial impairment will occur if uses resume can be accomplished. Clearly, our wildlife trustee will encounter enormous obstacles from user groups and industry. That is why legal, sophisticated trusteeship has not been able to thrive and flourish under the U.S. model of agency capture by powerful, moneyed interests (2, 4, 13, 62). Furthermore, rhetorical obstacles to attempting the wildlife trusteeship we envision are likely to be numerous and time-consuming to debate. Therefore, we point out that each incremental step towards better trusteeship over nature will improve our chances of reaching the fully envisioned wildlife trustee here.

For example, a trustee concerned with preservation of a wildlife trust would reallocate funds for research to studying prevention and enforcement against substantial impairment by current users. The recipients of such funds would have to be independent of user groups, avoiding potentially competing interests whether financial or non-financial. Because all researchers are human and therefore all have biases, the question about which research to fund is easily resolved. The dictates of the wildlife trust prefer researchers oriented to preservation and to futurity.

Transparency of biases in assumptions and methods — not elimination of biases — is the standard trustees should seek in themselves and in researchers they fund. That demands transparency about alignments past and present. Alignment of researchers with preservation interests would be of less concern than alignment with user interests because the priority of the wildlife trustee is preservation. Likewise, alignment of the recipient of research funds with futurity would be less problematic than alignment with current adult human interests. Therefore, the wildlife trustee we envision would prioritize funding of research into preservation of wildlife assets or the needs and attributes of futurity, rather than research on current hunting and angling interests or research on killing and capturing wildlife as is presently prioritized by U.S. wildlife agencies.

The stance of a wildlife trustee who focuses on preventing substantial impairment and regulating current uses to avoid impairment of any component of the trust is not an easy focus, but those foci certainly reduce the scale and apparent complexity of the task. No longer need a wildlife trustee manage all environmental interactions among organisms, nor scrutinize each human use of an asset measurably secure from extirpation. With substantial impairment in mind, the wildlife trustee we envision is keeping a watchful eye on rare and imperiled components of nature, both biotic and abiotic. Because substantial impairment is more than just numbers but includes depletion of abiotic resources and subtler harms to other animals, the expertise of our wildlife trustee goes far beyond current wildlife population dynamic monitoring. Our wildlife trustee must understand human uses and their spatiotemporal distribution so as to produce advance warning e.g., (64-66), of overuse of any resource on which life depends. Moreover, our

wildlife trustee must understand individual behavior and genetic diversity, diseases that affect every level of the ecosystem, and the complex capacities of nonhumans whose ecological role goes beyond the simple sum of their parts. In an essay such as this one, we cannot possibly specify all of the ecological and social sciences necessary to the wildlife trustee we envision. But the skills and data needed are not infinite, if one keeps a constant eye on the issue of threatening human uses and components at risk of substantial impairment.

Also, the priority placed on types of research would change. Research on more accurate, precise, replicable methods that are sensitive to changing conditions would be prioritized over methods that take shortcuts and lead to higher-than-prudent quotas for killing, e.g., wolves: (52, 59, 67, 68). A trustee concerned with fairness to all beneficiaries would invest in research on users in proportion to their numbers, might focus on children as the next generation of users, and would be concerned with ethical and philosophical teachings on intergenerational equity, trusteeship, and guardianship.

In sum, the conduct of the many government trustees required by our vision of U.S. wildlife trusts will take time. Its overarching goal is to prevent overuse and impairment of the wildlife trust for the benefit of futurity. The separation of powers we envision is justified by the U.S. Constitution's focus on prevention of tyranny of government.

3. Wildlife trusts have special attributes

3A. Wild animals are not like non-living assets

It is a fundamental characteristic of all non-photosynthetic organisms (and even some that photosynthesize) that they consume other organisms to survive or reproduce. In our vision of a wildlife trust, some components of the trust compete with or even consume other components of the trust. Therefore, the corpus of a trust changes over time as competition between components alters their relative numerical representations in the course of survival, reproduction, and competition with each other. Competition between components, by itself, is not a problem for the trustee unless an irreplaceable asset is substantially impaired as a result. The analogy from nonliving assets is direct. A portfolio of stocks fluctuates in total value as the individual components change in value over time, even as one asset made up of corporate stocks competes with another asset for profits. Therefore, a wildlife trust resembles a trust composed of a diversified portfolio that changes over time in its relative proportions of competing assets.

Second, one component may drive another component to extinction. Extinction of nonliving assets is not a problem for a trustee who is charged with the total value of a

nonliving trust. One corporation going bankrupt and its stock reaching zero value simply means that asset no longer holds value in a financial trust. But extinction is an existential problem for a wildlife trustee if a unique component is being lost to future generations. Extinction may be prohibited by law, such as the U.S. Endangered Species Act, putting another legal duty on a wildlife trustee to avoid extinction. Likewise, extreme population surge of one organism — or extreme resource use by one component — poses a threat to other components of the trust, necessitating regulation of the former overabundant or over-consumptive component.

Consider the controversy over free-ranging cat predation on birds still active in some circles commenting on conservation of biodiversity (69, 70). The resolution of this issue by the wildlife trustee we envision is straightforward. Domestic cats are far from imperiled and their control to prevent predation on birds would be a straightforward intervention, especially if non-lethal. Even the consumption of non-imperiled birds by domestic cats does not *by itself d*emand intervention by our wildlife trustee. But predation on non-imperiled birds by domestic cats suggests a threat to imperiled birds. Therefore, the wildlife trustee's scrutiny of the evidence should focus on the range of imperiled birds and the evidence that domestic cats prey on birds in general. Evidence for impairment of imperiled bird populations or evidence for a limit to the range expansion of imperiled birds might persuade a wildlife trustee to act against domestic cats. Domestic cats are not automatically a problem for imperiled species, so the wildlife trustee's focus must be on precaution against substantial impairment of imperiled species.

A related case arises from the U.S. government program to kill barred owls to protect northern spotted owls (71). From the philosophy in Section 2 and the ethics that follow from it, our perception of the owl-killing-as-protection program becomes clearer. We humans are simply adding one wrong (clearing much too much old growth forest and northern spotted owl habitat) on top of another wrong (killing the barred owls). Our wildlife trustee would perceive this issue because they would recognize two U.S. native owls competing as a natural event that does not require intervention as much as intervening in the human actions that precipitate the extirpation of northern spotted owls. A moratorium on old-growth clearing would be the appropriate intervention followed by interventions to improve habitat for northern spotted owls.

When we consider current interventions that kill one organism to protect another, our wildlife trustee would first consider the non-lethal interventions that curb human threats. Our wildlife trustee would not consider killing other animals first or even in the second case. Because preservation has priority over use, either owl gets priority over human needs to log old growth forest. We lack space and time to discuss the protections for the

northern spotted owl our wildlife trustee would implement, but we hope it is clear that this trustee's first actions would be to prevent any more human-caused loss of spotted owl habitat. If it fails and the barred owls drive them extinct, we have failed, but the attempted remedy was the morally correct one. A more vexing moral quandary arises if two imperiled components are locked in a death struggle and we cannot identify a human activity that precipitated the struggle, or if extinction is inevitable even after the human activity is remedied. But inaction is a moral failure, so the wildlife trustee we envision must try.

If one takes a position against one individual organism consuming another, one is taking a position against the historic and evolutionary process by which organisms have struggled for reproduction and survival, sometimes at the expense of each other. While we would not assert that 'predation has always been a part of life so humans are acting naturally', neither is the other extreme a tenable position: morally no organism should consume another. That too would require humans to impose their moral preferences on nonhumans, an equally wrong act. For legal and pragmatic reasons, the wildlife trustee must guard against "substantial impairment of the corpus of the trust" only *(Illinois Central*, 146 U.S. at 452), not all uses of the trust assets nor consumption of one component by another component. Therefore, we examine substantial impairment next.

Because humans are in our view over-populating most regions and over-consuming planetary resources generally, the major threat to the corpus of the public trust is now, and will remain during our lifetime, human users. Even when a nonhuman cause is sometimes identified as the proximate threat to a component of the biosphere, often humans have played a leading, if indirect, role in taking the biosphere to such a vulnerable position (72-79). The allocation of a very small proportion of nature's assets to current human users should be conceptualized in the same way as allowing nonhumans to consume other components of the trust: for survival and reproduction (i.e., non-trivial needs). Such urgent uses are not a problem unless a component of the trust is threatened with substantial impairment (*Illinois Central*, 146 U.S. at 452). Therefore, when the wildlife trustee we envision must prevent or regulate use of an imperiled component, the trustee may also find themselves offering an alternative to the genuinely needy user or compensation for prohibiting a use.

Another difference between non-living trusts and the wildlife trust is that the corpus and the beneficiaries of the trust include animals. By analogy, just as humans are animals and therefore part of the trust, we are all the beneficiaries. This is not as thorny an issue as it may seem at first glance. Humans are not imperiled, therefore they do not merit the preservation efforts of the wildlife trustee. Many other animals fit the same conditions. All may be beneficiaries, but their use of imperiled components may be curtailed by the

wildlife trustee we envision, as described above. Nevertheless when we consider humans as both components and beneficiaries of the trust, an important issue becomes clearer.

3B. Voiceless animals include many humans.

Just as humans who are voiceless by virtue of youth or incapacitation retain rights that can be vindicated in courts, future generations of humans and living and future individuals of other animals cannot lose legal standing purely by virtue of being voiceless. To rob other animals of legal standing as beneficiaries of the wildlife trust would be to rob current human children, the very aged, or debilitated of their interest in unimpaired nature. That would be very wrong.

Although U.S. courts do not yet recognize legal standing for nonhumans, many legal scholars have explored the justifications and consequences of legal personhood or legal standing for nonhumans (24, 32, 39, 80-84). Our current position is that such legal personhood may be beneficial to a more just and modern view of the wildlife trust. Financial and charitable trusts are common and commonly understood by courts as being represented in legal proceedings by their trustees. Trust documents rarely grant legal representation, legal standing, or a legal voice to nonhumans, but see charitable trusts with pet animals as beneficiaries (80).

If someone were to argue that a human would lose their legal standing as a beneficiary of any trust simply because they lost their voice, capacity to reason, or any other human quality, we would indict the statement. It is only by erecting an (arbitrary) species-ist framing for legal standing that we can sustain the injustice of not granting other animals moral standing and thus legal standing. But that species-ist argument also breaks down. We have the genetic material within us now to give birth to a new species, just as our ancestral proto-humans arose from an ape ancestor. The mutability of life leads evolution to produce offspring and entire lineages of descendants who do not share our current list of qualities deemed' human'. Therefore, it is best to abandon the species-ist line in the sand before the tide of futurity washes it away and our associated ideas of human exceptionalism too. In sum, the trustee stands sentinel over the legacy for futurity, not for some current adult humans' claims about their own superiority.

Yet we have a puzzle before us. Does an unborn horse, domestic cat, barred owl, non-native zebra mussel or an unborn human deserve the protection of our wildlife trustee because it might embody a new type of biological diversity and hence be immediately in danger of extirpation? The wildlife trustee we envision is not concerned with diversity however you define it for itself but rather for the components of nature that allow life to persist, reproduce, and be free where it is found by "nature or luck" (24). We also

answer ‘no the trustee need not focus unduly on genetic diversity’ using the analogy of the financial trust.

A fiduciary is not concerned with protecting every novelty or new invention in the pool of non-living assets, only with those that might survive to be passed on to futurity. If a living component of a wildlife trust has passed the initial tests of natural selection, surviving to reproduce, then the wildlife trustee begins to preserve it as imperiled. Not before that point. Our wildlife trustee is not searching for and nurturing every variant. Evolutionary forces are part of nature and so must be allowed to act.

4. Controversies over wildlife trusts

In general, we are aware of two different schools of thought whose members will oppose the vision of a wildlife trustee we set out here. The first set have vested interests in the status quo, whether financial or power relations are involved. We address that view in 4A below. The second side agrees with us on many principles about animals having moral standing but departs on which animals or the manner of trusteeship. We address the second side in section 4B.

4A. Departing from the status quo

The first challenge is from outwardly anthropocentric commentators allied to the Wildlife Society and Association of Fish and Wildlife Agencies that espouse the so-called North American model (21, 85, 86). We shall refer to these commentators as status quo because their approach has been to work within the existing system for reform. There are a set of commentators, with whom we have debated that we view as moderately or subtly anthropocentric (87-89)— see rebuttals in (14, 15). We do not lump the former in with the latter in general but for one argument against the former that comes next.

Although it can be challenging to summarize another group’s point of view fairly, we think we can identify points of overlap and points of departure. Status quo commentators generally agree with the legal basis for trusteeship — or at least espouse public trust principles. We also believe we share a fundamental respect and appreciation for wildness, nature, and animals with these commentators. We share with them a respect for the principles of public trust thinking (90), but we are not satisfied with status quo lip service to such thinking.

We depart from status quo commentators in several important ways. First, we maintain that status quo institutions in the U.S. and perhaps other countries can be reformed to do a better job as trustees. Here we do not recognize a legal liability imposed by wildlife on a jurisdiction as did (21). That would violate two fundamental principles of our wildlife trustee: other species are beneficiaries of the trust or components, there is no special

category of liabilities. The concept of 'liability' also violates the fundamental principle that the trustee is focused on preserving imperiled components mainly from humans, whereas the liability implicit in the latter work is a liability to humans. Humans do not need protecting in our vision of a wildlife trustee (90). Nor do we recognize priority of any one use as did (85) and their publishers the Wildlife Society and Association of Fish and Wildlife Agencies (85) for hunting or fishing. The latter document asserts special privileges for hunters, trappers, hounders, fishers, etc. in a prominent place at the front of their 'technical document' "Several significant threats have been identified that directly or indirectly erode or challenge the PTD in North America… inappropriately claiming ownership of wildlife as private property; unregulated commercial sale of live wildlife; prohibitions on access to and use of wildlife; personal liability issues; and a value system oriented toward animal rights.… These threats in various ways are potentially harmful to the long-standing tenet that wildlife is a public trust resource." (Citations to Organ, Geist, Mahoney omitted) Such a view is diametrically opposed to our vision of a wildlife trust and trustee conduct.

The perceived and realized benefits and costs of wildlife to particular interests are expected to change over time and vary between interest groups (4). Our vision puts current users a distant third — after future generations of all life — in priority, hence the anthropocentric constructions of public trust thinking are structurally flawed in our view. Furthermore, the subtly anthropocentric ethics of (87-89) that accord no role for individual nonhumans, no role for other animals as beneficiaries, and still place humans at the center of strategies to conserve biodiversity also seem inadequate to us.

If one dismisses individual nonhumans, one inevitably reaches a point where an individual human demands the death of an individual nonhuman. That demand may not always be for survival or reproduction as we have allowed, but rather for economic gain or trivial pursuits rather than necessity. When an individual human desire defeats an individual nonhuman need for survival, the outcome is unjust. Ecocentric or subtly anthropocentric ethics that do not accord individual nonhumans an equal standing with individual humans perpetuate the injustices discussed in Section 2.

4B. Challenges by different visions of wildlife trustees

An alternative views of trustees for animals has been articulated by close colleagues (80). The latter view seems to build upon (13-15, 56) without citing it to make clear exactly where they agree or depart from our views, with one exception. Namely, we agree with Stewart & Baker (80) that advocates for wild lives and domestic animal lives should be more widely recognized in law as they are currently recognized when, for example, pets are named in human wills and trust documents. Such animals gain

representation in legal proceedings when so named. We agree in large part although we note two divergences below.

In the course of that eloquent articulation, they dismiss public trust law under an erroneous assumption that it (a) refers to property, a legal fiction long ago dismissed by *Hughes v. Oklahoma*, 441 U.S. 322, and (17). Even the *Geer* court recognized that private ownership over nonhumans required 'skillful capture' and did not apply to free animals in the wild. The *Hughes* court redressed the poor choice of words about state property, again affirming the public interest in wildlife. Therefore, wildlife trusts properly fall in the legal domain of public interest law. A more challenging implicit contention by Stewart & Baker (80) is that (b) PTD is inevitably anthropocentric. Refuting the latter takes more consideration which we attempt below. Although we are sympathetic to the view of (80) that U.S. PTD has been too heavily focused on human needs in the past, we ask which branch of law has not. Moreover, their own proposal of guardianship or granting legal representation for domestic animals named in wills, does not cure the problem of anthropocentric treatment of other animals in courts. Pets are seen as property that need care in such deliberations, not as beneficiaries of a trust with a voice of their own as to their liberty, survival, and care. We advocate the latter and see the U.S. PTD as compatible with our view.

We perceive the major challenge for U.S. PTD jurisprudence is whether courts will recognize that the U.S. public includes nonhumans current and future. It is precisely because U.S. public trust common law does not stipulate that ONLY humans are beneficiaries of the trust that we feel it is a sharp weapon in the battle for nonhuman legal standing.

We also diverge from (80) in their view of private wildlife trusteeship as follows. A private trustee must gain legal standing in a U.S. court to truly represent nonhumans to futurity in our framework (Section 2). Otherwise the private wildlife trustee faces a competing interest of advancing personal or professional interests by serving the government or some third-party on a contractual or privileged basis. Only a fully independent private trustee with legal standing can execute the interests of nonhumans or futurity without a competing interest of their own advancement, favor, or profit.

Finally, we are concerned that some writings by affiliated authors in the animal trustee literature will seek a wildlife trustee who weighs the needs of all individual animals (e.g., domestic animals) as equivalent to the needs of individual nonhumans from imperiled populations, which we address in Section 3A. If the wildlife trustee accords equal value to a domestic animal or to an accidentally introduced wild animal as we do to an

individual of an imperiled species (native or non-native regardless), the consequences for human-animal relationships will be persistent injustice favoring the former we fear.

Imagine when the individual human plaintiff charges they have been discriminated against by the trustee for dismissing their trivial recreational use of a nonhuman because the trustee is not stopping trivial nonhuman uses of nature. A trivial nonhuman use of nature would be for a well-fed housesat to eat a bird. If the housesat can do so why not the well-fed human hunter? The trustee must keep its eye on imperiled individuals and imperiled components of nature (not all animals or all of nature) because substantial impairment of the corpus is the existential threat that the trustee is legally charged to combat.

Likewise, imagine a nefarious interest group that intentionally floods a habitat with domestic animals so as to argue they outnumber wild animals in that habitat, hence the trustee must recognize their survival needs above those of wild individuals? Again, the wildlife trustee must not treat individual domestic animals or introduced wild ones as beneficiaries of the trust equal to imperiled nonhuman individuals. Domestic animals as property are a private, human interest coming in a distant third in uses of nature. We are aware that some nonhumans imperiled in their historic ranges have been translocated to other ranges. We view such actions as dangerous, but if already accomplished, our wildlife trustee would preserve them despite their non-native status. The priority is on preservation from extinction, which we realize will raise questions about unique genotypes among other animals and imperiled human societies, which we discuss next.

4C. Should our wildlife trustee preserve uniqueness?

Maybe. We cannot address all possible situations and wish to leave a modicum of discretion for the wildlife trustees we vision. Given the many populations and entire species at risk of winking out of existence across the world or even the U.S. today, it seems our trustees will be busy without being compelled to spend time on particular genotypes. Consider these arguments against preserving a unique genotype in a common species not at risk of extirpation. The mutations that gave rise to the unique genotype may arise again, so the trustee at the outset might deem the unique genotype not vulnerable to extinction. Second, a successful lineage with a unique genotype in a larger, common population may not need intervention to spread and nourish. The evidence for its imperiled position should not simply be a numerical one. What are the trends in gene frequencies of the unique genotypic segments? Third, if a unique genotype is found of an extinct species within a widely common population (e.g., ‘ghost ‘red wolf genes in coyotes of the U.S. gulf coast ref), should the individuals harboring the ‘ghost genes’ be specially targeted for preservation? Perhaps, but we would not

want to lay down a firm command to wildlife trustees without leaving them discretion to decide based on additional information.

A related issue is whether unique human diversity should be treated similarly to imperiled other animals. We understand and appreciate the importance of preserving unique human genetic or cultural diversity, including agrobiodiversity. Nevertheless, we don't think a nascent wildlife trusteeship already taxed by the ongoing sixth mass extinction of other organisms should be the one to undertake such preservation. Our position would be underscored by acknowledging the many orders of magnitude greater investments in human well-being, development, protection, etc. and the fact that humans have legal standing in courts already. While we acknowledge that important advances need to be made in vindicating human rights and dignity, abiding by the rule of law, and seeking universal justice, the institutions presently charged with those tasks are already far more powerful or moneyed than any wildlife agencies.

The last paragraph on discretion notes that sound policy allows expert discretion as long as that discretion is applied with clear reasoning that is consistent with the legal duties of the trustee. Throughout we have left open-ended several aspects of the wildlife trusteeship we envision: how to preserve, which future generations to prioritize as beneficiaries, how to allocate to current users, and how to define components and beneficiaries of the trust that are imperiled. Given our recommendation that the judicial, executive, and legislative branches of U.S. government all take a role, albeit separated and balanced powers, in wildlife trusteeship, we are confident the future trustees will be held accountable.

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(some of these are freely available at https://faculty.nelson.wisc.edu/treves/ or the URL listed under each one but if not contact atreves@wisc.edu for a copy.)

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