

# On the Intrinsic Value of Species

**1. Mass Extinction:** There is no doubt that we are causing a lot of species to go extinct. When human populations began to explode (around 1800), so too did the extinction rate—such that, now, species are going extinct at least 1,000 times faster than they would naturally. Conservative estimates state that one species goes extinct every hour.

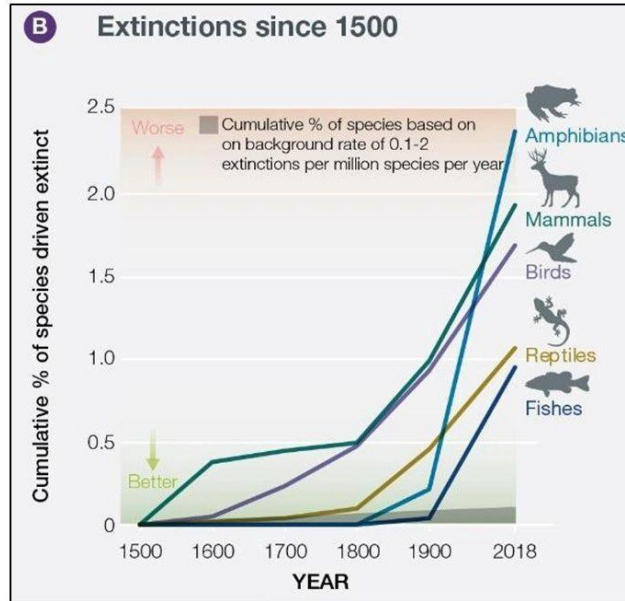


Figure 3 (B) - Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

In short, we've entered an era that is now being called [The Anthropocene](#). And it's not just weird beetles or lichens you've never heard of. For instance, 60% of all primates are threatened or endangered. If you've viewed [my lecture notes page](#), then you've viewed my collage of just a few of my favorite endangered species.

**2. Why Protect Endangered Species?** In light of mass extinction, it seems to most environmentalists that we have a moral duty to protect endangered species, and prevent extinction wherever possible. But, what would possibly ground this obligation?

- *Duties to individual organisms?* On views such as Singer's or Regan's, **individuals** are what matter, morally, and our obligations are simply toward individuals. On that sort of view, however, it would be just as wrong to kill a common turkey vulture (pop. 4.5 million) as a California condor (pop. ~500); or no more wrong to kill a blue whale (which is endangered) than a pilot whale (which is not). Yet, (1) environmentalists typically claim that it IS worse to kill a member of an endangered species than a non-endangered one. (2) They would also claim that, e.g., a world with 10,000 humpback whales and 10,000 pilot whales is BETTER than a world with 20,000 pilot whales only.
- *Duties to species?* So, then, perhaps our duties are not to individuals, but to whole SPECIES? But, what could possibly ground such a duty? Our duties toward individuals are grounded in a duty to promote their INTERESTS. But, SPECIES don't HAVE interests—only individuals do.

Okay, so, what DOES ground such a duty? Three common answers:

- (1) We have a duty to be good “stewards” or “caretakers”: Russow accuses this view of “begging the question”. For starters, it seems to answer the question, “Why do we have a duty to take care of species?” by answering, “Because we have a duty to take care of them”—which is no answer at all. Furthermore, it seems that one has a duty to be a caretaker (i.e., a duty to take care of something) only when there is something of value to be cared for. So, the current suggestion assumes up front that species ARE something of value to be cared for—but that is the very thing under dispute. The question to be answered is, “DO species have value, and if so, why?”
- (2) Species have instrumental value: Many suggest that preserving species is likely to benefit US. As such, preservation has instrumental value. For instance, the extinction of species could deprive us of potential scientific benefits, or could cause the collapse of a delicately balanced ecosystem, or could just be a warning sign that environmental disaster is soon to come.

**Scientific Benefits:** Consider for instance, [penicillin](#). Or the [spruce budworm](#), which has a natural antifreeze that is being studied to make crops more resistant to cold temperatures. The [saw-scaled viper](#) produces a venom that was used to create a life-saving blood thinner. The [Pacific yew](#) was discovered to contain a cancer-fighting agent that is used in treatments today. Just to name a few...

**“Keystone” Species:** Have you ever set up a row of dominoes, and then knocked over the first one, setting off a chain reaction? Nature can be like that. The loss of a single species can have a “domino effect”, wreaking havoc on entire ecosystems. For instance, in Yellowstone National Park, [wolves](#) were killed off to extinction by 1926. When wolves were re-introduced in 1995, the balance of the entire ecosystem was restored. Wolves curtailed the massive elk population (wolves eat elk). With fewer elk, willow and aspen trees began to thrive again (elk eat these trees, which grow on the edges of streams). With more trees along streams, the temperature of stream water was cooled by the shade. This in turn allowed trout to thrive in the waters, and songbirds to thrive in the trees (they build their nests in them). The trees also attracted beavers once again, and these beavers build dams which in turn attract otters, minks, and ducks. In short, wolves are a keystone species. Removal of this sort of species is like removing a piece in Jenga, which topples the whole tower.

Great video on this topic [here](#) (**sea otters**, and even **starfish** are keystone species!).

**Environmental Monitors:** For instance, when the population of [bald eagles declined](#) in the mid-20<sup>th</sup> century, this helped us to recognize that the levels of DDT (a dangerous pesticide) had risen too high, allowing us to respond by banning DDT. Or consider [mussels](#), which are being used as “environmental detectives” to monitor water quality all around the world.

Reply: Sure, but environmentalists will commonly claim that causing the extinction of a species is wrong even when these three factors are NOT present. For instance, consider the battle for the [snail darter](#) (a small fish) that took place in Tennessee over the building of the Tellico Dam. The building of the dam would guarantee the destruction of the species. But, surely the snail darter:

- Was not harboring some secret scientific discovery, since it was too similar to many other species of fish.
- Was not a “keystone” species, as there were only a few of them in existence in one small part of a tributary river.
- Was not a crucial environmental monitor.

Is there any reason to preserve the snail darter, independent of instrumental value?

*[Furthermore, it is unlikely that any of the above reasons apply to very many of the animals that are classified as ‘Extinct in the Wild’ and exist only in zoos—yet, many feel that we DO have some moral reason to preserve such animals.]*

Russow mentions other cases where the loss of the species is not even at stake. For instance, consider efforts to preserve the distinctively spotted coat of the Apaloosa horse, which had nearly disappeared. Also, in a hypothetical scenario where we could save zebras only by selectively breeding them to have no stripes and look instead exactly like mules, it’s not clear that we’ve preserved the thing that made zebras valuable. *[Do you agree?]*

(3) Species have intrinsic value: Perhaps species have intrinsic value. But of what sort?

(a) **Diversity:** Perhaps it is the case that, the more diversity the world has, the better it is. In other words, diversity is, in and of itself, valuable for its own sake.

Objection: Surely it is not MERE diversity that is valuable. If that were the case, then we would have moral reasons to pursue large-scale projects which diversified species (by selective breeding, or even genetic engineering) in the way that we have selectively bred dogs into their diverse breeds—but surely we have no such reasons. Russow mentions, for instance, that we selectively breed many unique strains of rats, for the purposes of experimenting on them. But, when the experiment is complete, we allow the breed to go extinct—and yet this seems morally permissible.

*[What is more, if MERE diversity is intrinsically valuable, then this does not entail that its value only applies to SPECIES. Perhaps, then, we have a duty to create ANY sort of diversity—rather than having beer in 6-packs, or 12, it would be even BETTER to sell them in 7-packs, 8-packs, 9-packs, 10-packs, and so on. But, that is absurd. MERE diversity is not valuable for its own sake.]*

(b) **Aesthetics:** Russow suggests that many species have **aesthetic value**. She writes,

“A tiger may be simply beautiful; a blue whale is awe-inspiring; a bird might be decorative; ... and even a drab little plant may inspire admiration for the marvelous way it has been adapted to a special environment.” And “Most of us believe that the world would be a poorer place for the loss of bald eagles in the same way that it would be poorer for the loss of the Grand Canyon or a great work of art.”

She thinks that this is what explains our intuitions in the case of wanting to preserve the spotted coat of the Apaloosa horse, or the stripes of the zebra, for instance—and NOT various breeds of rats. [*Do you agree?*]

[Note: This is not to say that things with aesthetic value have INFINITE value. Just as you would be a monster to run into a burning building and save a painting instead of your mom, it is possible that the value of the snail darter is insignificant compared to the value generated by all of the jobs and alternative energy a dam would create.]

Problems: (1) If species only matter morally because of aesthetic value, then an endangered whale shouldn't be any more valuable than another non-endangered whale which is just as aesthetically pleasing. The endangered *mountain gorilla* shouldn't have any more value than the nearly identical but non-endangered *western gorilla*. Aesthetically, the threatened *spotted owl* seems to have no more value than the very similar-looking *barred owl*—and yet we have taken efforts to preserve it. Similarly, the endangered California condor looks pretty much like the common turkey vulture, yet we spent \$35 million in conservation efforts to increase its population from 22 to 500 (that's over \$73,000 per condor).

(2) We may have no reason at all to preserve an “ugly” species. (Note that Russow actually seems to agree with this claim, stating that it doesn't seem that we have any moral reasons to preserve certain mosquitos, or the boring snail darter.)

(3) Note that, if we have a duty to preserve species for their aesthetic value, then we ALSO have a duty to preserve, e.g., Van Gogh's *Starry Night*, or Delicate Arch for exactly this same reason. Some may find this counter-intuitive. [*What do you think?*]

[Question: Is aesthetic value really INTRINSIC value? Is a beautiful thing valuable IN AND OF ITSELF, or rather, is it only valuable if there is someone deriving pleasure from it? Is *The Starry Night* still valuable if it is shot into the void of space in a rocket and never seen by a sentient creature again? If the answer is 'No', then this really just reduces to the claim that species have INSTRUMENTAL value—namely, we derive (aesthetic) pleasure from preserving them. For instance, consider the famous 'Last Man' case:

**Last Man on Earth:** Far in the future, the human race is about to go extinct. Even all sentient creatures (animals) have already gone extinct, and there is one man remaining, among all of the plants, lakes, rivers, and mountains (and empty cities). He plants bombs in all of the world's famous museums and landmarks (e.g., the Louvre, the Acropolis, the pyramids, the Metropolitan Museum of Art, and so on). Then, he rigs a device to his chest which, when it no longer detects his heartbeat, will set off all of the nuclear warheads in the world. The moment he dies, these bombs are detonated, and all of the world's famous art is obliterated.

Is this morally wrong? The author of the case (Richard Sylvan) believed the intuitive answer to be 'Yes'. If that is correct, then beautiful things have INTRINSIC value, in and of themselves. And yet, contrary to what Sylvan expected, many have the intuition that nothing of value is lost in the Last Man case. What do you think?]