MuseLetter
www.richardheinberg.com

richardheinberg.com

MuseLetter #383 / February 2025 by Richard Heinberg

Putting Nature at the Center

Life may be unique to Earth. Even if single-celled organisms can readily evolve in conditions that exist on millions or billions of other planets, we have no actual evidence that complex, multi-cellular life exists anywhere else in the vastness of space.

Bacteria appeared on our planet roughly 3.7 billion years ago; by 2 billion years ago, the tree of life was branching into what would become a stunning web of creatures, huge and tiny. Plants, animals, and fungi proliferated, formed relationships, and produced ecosystems. The result was a planet full of life, and one whose atmosphere, temperature, chemical composition, and weather are all largely shaped by the side effects of the strategies that organisms use to thrive.

However, in a matter of mere centuries, we humans are unraveling the web of life and triggering a mass extinction event that is likely to impact virtually all species on the Earth, and to destabilize the fundamental planetary systems upon which we too depend.

Mass extinctions have happened before. The web of life is, paradoxically, both resilient and fragile. On five previous occasions (most recently the Cretaceous-Tertiary extinction 65 million years ago) our world lost up to 95 percent of its species. The current wave of extinctions that's being triggered by humans is, so far, not on the same scale, but it is proceeding far more rapidly than previous ones.

We humans represent a new kind of threat to the rest of life: our development of language, tool-making, and fire-spreading rendered us hyper-effective hunters and foragers. Tens of thousands of years ago, we were already reshaping landscapes and impacting wildlife. Our ability to expand our own habitat has generated unwanted results: some prey animals were hunted to extinction, and in a process of competitive exclusion, humans caused many local extirpations by appropriating the resources of habitats for themselves. These unintended effects then impacted humans themselves, often by compromising their food supply. Therefore, over time, humans who stayed in any given ecosystem long enough to learn its limits embraced cultural traditions to moderate their demands on it.

However, since the start of the European conquest of most of the rest of the world, and especially since society's rapid adoption of fossil fuels starting

around 1800, human impact on the biosphere has accelerated at a breathtaking pace. Expanding human populations and associated land use changes, industrial agriculture, industrial forestry, industrial-scale fishing, proliferation of toxic chemicals, and climate change are decimating native species of plants and animals around the world. According to some estimates, populations of many non-domesticated species have declined, on average, by 70 percent, and the pace of species extinctions has quickened to 100 or more times the usual or "background" rate.

What will the world come to look like if these trends continue? In one scenario, Earth will have become fully domesticated in a century or two, so that humans and machines control planetary systems (including climate patterns, ocean currents, the water cycle, and the carbon cycle). In this possible case, very little of wild nature will be left. In the far more likely scenario, the unraveling of the web of life and the destabilization of planetary systems will lead to the collapse not just of biodiversity but civilization as well.

Is it too late to save biodiversity and the living Earth? In this article I'll argue that only a collective effort to put wild nature at the center of our priorities will prevent its devastation and the possible disappearance of our own species, among countless others.

The Best Ideas

When many people think of environmentalism, they think of government regulations. Laws and policy shifts have helped clean up toxic spills, protect prized natural scenery, and save endangered plants and animals. But, overall, regulations have failed to halt nature's quickening demise. Further, in some countries, including the United States, the political appetite for more environmental regulations—or even the maintenance of existing ones—appears to be diminishing rather than growing.

Stopping humanity's war on nature will require not just a few new rules, but a fundamental reorientation of human priorities. Over the past five decades or so, many philosophers and biologists have outlined what's needed, coining terms such as *biophilia* (the love of wild creatures and ecosystems), *biocentrism* (considering nature's needs before those of society), and *bioregionalism* (organizing human political, cultural, and economic affairs around natural boundaries). Aldo Leopold's *Sand County Almanac* (1949) kicked off a modern reappraisal of humanity's relationship with wild nature; after 1970, books related to biocentrism sprang up like wild onions after a California rain. Notable examples include *Biophilia* by E. O. Wilson (1984), and *In Service of the Wild* by Stephanie Mills (1996). The deep ecology philosophical movement provided an overall rationale, while various organizations (including the Foundation for Deep Ecology) plotted strategy and funded conferences.

This new movement faced an enormous challenge: how could a majority of people be persuaded to put wild nature at the core of their concerns? After all, for the four and a half billion folks who live in modern urban environments, most perceived threats come more from the social sphere (including military conflicts and economic downturns) than the loss of wild nature. So, a profound nature-centric shift in priorities would first require that more people

grasp the dire consequences of the current human-centered agenda.

Rachel Carson paved the way for this awareness with her book *Silent Spring* (1962), in which she sounded the alarm about the effects of toxic chemicals such as DDT. More recently, Elizabeth Kolbert, in *The Sixth Extinction* (2014), made the larger case that not just toxics, but climate change and other consequences of human actions put nature at risk, and humanity in the crosshairs. Because of widespread coverage of climate change by the media, a large percentage of the populace does believe we have a problem. Unfortunately, this initial eco-awakening has led only to partial and temporary mitigation efforts—mostly having to do with adopting renewable energy generation technologies (which entail their own environmental harms).

A more systemic shift would require far bolder action. E. O. Wilson, in his book *Half Earth* (2016), reasoned that not just climate change and toxics, but also urbanization, industrial agriculture, and road building are causing nature to retreat rapidly. Much of the damage may be irreparable within one or two human lifetimes. The only way to prevent this loss would be to keep a large part of the planet off limits to "development"—which always entails raw materials extraction and nature degradation.

This strategy has met with some success: in 2022, more than 110 countries represented at the U.N. Biodiversity Summit in Montreal signed a pledge to set aside, by 2030, one-third of the planet's land and sea surface for nature conservation and recovery. This would more than double the land already under protection, and more than triple the area of protected seas. However, some scientists criticized the agreement, saying that it would be more effective to target biodiversity hot spots—many of which have growing human populations—rather than to set aside an arbitrary percentage of Earth's surface, which could be accomplished by protecting huge swathes of arctic tundra and desert, home to very few people or other species. In any case, it is unclear whether the agreed-upon target will be met, as the U.S. under Donald Trump is likely to renege on many of its conservation commitments. (Incidentally, many Indigenous peoples would not agree with the goal of preserving wild nature away from human influence or interaction; they'd argue that it's better to recognize ourselves as part of the web of life and become more, not less, connected to the more-than-human world.)

Businessman and radical conservationist Doug Tompkins (1943-2015) had a wild idea: why not just use his own money to buy huge parcels of mostly untouched land in biodiverse regions and protect it? Starting in the early 1990s Doug and his wife Kris began purchasing tracts in Chile and Argentina; the purchases have ultimately encompassed over a million acres, much of which was later donated to Chile and Argentina to create national parks. Doug and Kris sought to involve Indigenous peoples in their efforts, and to foster small-scale sustainable farms.

So, we have a philosophy (deep ecology), and the beginnings of an agenda (roll back human impact on land and sea by halting, or at least putting boundaries around, "development"). But, so far, the actual results are insufficient. What stands in the way?

The status quo is buttressed by a couple of pernicious but deeply entrenched

ideas: human exceptionalism (we are above nature, which exists to serve us) and capitalism (which is founded upon the notion that natural resources, starting with land, should be privately owned, and that the economy should always grow). These ideas and their imperatives are woven into our entire social structure, all the way down to the granular level of individuals who simply want a home with a neat lawn, running water, electricity, and smooth streets and roads to drive upon.

What Can I Do?

For those of us who understand that we humans are undermining the biological basis of our own existence, the frustration is deep and persistent. Every day, we feel as if we're trapped in a death machine festooned with "Pro-Life" bumper stickers.

But there are actually things we can do. Start with whatever land you can influence in some way. As Douglas Tallamy writes in *Nature's Best Hope* (2019), conservation starts in your yard. Create habitat for native animal species by planting native varieties of trees and shrubs that provide food and cover. Coordinate with neighbors and your community to establish corridors of wild and native habitat. Join local organizations like Master Gardeners to help inform other citizens and local governments about these strategies.

Consider working with your local government on alternatives to roads. Build support for de-paving efforts. Support the establishment of legal urban boundaries to limit sprawl. Support bans on pesticides and herbicides, as well as gasoline-powered leaf blowers. Add to the public criticism of plastics and "forever chemicals."

Increase your awareness of local nature. Learn about native plant and animal species, and local Indigenous practices. Spend more time in wild nature and pay attention to ways you are impacting it.

You can also take a stand politically. Northern California, where I live, has been the site of decades-long conflicts over the fate of ancient redwoods. Demonstrations and negotiations led by environmental groups somewhat slowed the removal of these majestic trees. Meanwhile, Indigenous peoples around the world (notably in the Amazon) are holding the line against commercial logging, fishing, and mining operations that are targeting the world's remaining biodiversity hotspots. These folks could use your support.

Overall, such tactics are unlikely to turn the tide. The scale of destruction is vast and its pace is rapid and accelerating. But, realistically, we are playing a waiting game: we don't know exactly when or how techno-civilization will crash, though it assuredly will. Meanwhile, it matters enormously what and how much of nature can be saved. Plenty of people are choosing sides in human battles for resources and for political and social power. These battles are not meaningless. But keep in mind the larger conflict that will determine the future not just of people, but much of life on Earth: humanity's war on nature.

Take nature's side. In the long run, it's really our side, too.