

Nonhuman life should be central to sustainability problem-solving

May 8 2019, by Cayte Bosler



A tiny gecko photographed in a protected area in Banao, Cuba. Credit: Samuel Bozeman/Wildlife Conservation Society

A landmark new [United Nations report](#) warns that the rate of species extinctions is accelerating, and that upwards of one million species are gravely at risk.

I practice problem-solving life and death trade-offs for my assignments at Columbia University. This is a constant source of distress as I work on my masters in Sustainability Management, a degree I will use to protect

and defend the [natural world](#). When we solve for [human needs](#) we determine who else survives along with us. As graduates, we will enter all sectors of society to guide organizations and communities to do less harm to the environment. In our pursuit to sustain human culture, we must include the rest of life—before it is too late.

If we continue without the needs of the natural world as central to sustainability then we will irreversibly plummet into the Anthropocene Epoch, an age where the earth exists solely for humans. E.O. Wilson, Professor Emeritus at Harvard whom Time magazine named the leading environmentalist of our time, prefers to call this the Age of Loneliness. Nothing short of conserving half the earth will stave off this hemorrhaging of life, he implores. The fight now is for [future generations](#) to exist among nature at all.

Wilson warns us, "unless we move quickly to protect biodiversity, we will soon lose most of the species that compose planet earth." Scientists estimate that 150-200 species of plant, insect, bird, and mammal become extinct every 24 hours due to human activity.

The new report paints a bleak picture: "The average abundance of native species in most major land-based habitats has fallen by at least 20%, mostly since 1900. More than 40% of amphibian species, almost 33% of reef-forming corals and more than a third of all marine mammals are threatened. The picture is less clear for insect species, but available evidence supports a tentative estimate of 10% being threatened. At least 680 vertebrate species had been driven to extinction since the 16th century and more than 9% of all domesticated breeds of mammals used for food and agriculture had become extinct by 2016, with at least 1,000 more breeds still threatened." We are in an extinction event, codified by the world's leading scientists, and bafflingly, it is broadly treated as a side note.

The report also warns that creating a world that exists solely for humans could spell profound troubles for humanity and the possible collapse of our societies. The disappearance of biodiversity—species, their habitats, and genetics—affects us all. As biodiversity declines, we are more vulnerable to sudden environmental shifts like floods, droughts, wildfires, and we face an increased risk of pests, disease, and a lack of fresh water and healthy food.

"If you were to randomly remove parts from a computer or car, everyone knows that both those systems will become less reliable or very likely stop working all together," explained Shahid Naeem, director of the Earth Institute Center for Environmental Sustainability, in a previous interview. "The same thing happens to ecosystems when they lose their species."

Naeem is chair of Columbia's department of Ecology Evolution and Environmental Biology and he co-chaired the 2005 Millennium Ecosystem Assessment Biodiversity Synthesis Report, which the new U.N. report built upon. In response to the latest findings, he wrote in a *Science Advances* editorial that "One of the singular most important scientific questions that faces humanity in this epoch, the Anthropocene, is "What comes next?"

Sir Robert Watson, chair of the group that wrote the new report, says that it's not too late to make a difference—"but only if we start now at every level from local to global. Through 'transformative change', nature can still be conserved, restored and used sustainably—this is also key to meeting most other global goals. By transformative change, we mean a fundamental, system-wide reorganization across technological, economic and [social factors](#), including paradigms, goals and values."

I consider this need for transformative change when I encounter a trade-off like this one: analyze the supply chain for Ferrero, one of the world's

leading suppliers of chocolate, then recommend a sustainability strategy—one to lessen environmental impacts while maintaining corporate growth. In 2017, an investigation from Mighty Earth, a nonprofit that works to conserve threatened landscapes, showed evidence that much of the production of the cocoa of the world's leading chocolate companies, including the Ferrero brand, "was grown illegally in [national parks](#) and protected areas in Ivory Coast and Ghana." And it "pushed chimpanzees into just a few small pockets, and reduced the country's elephant population from several hundred thousand to about 200-400."

Ferrero responded with an outline of its commitment to "working on the challenges to end deforestation in the cocoa sector." But we can't bring back what's already disappeared.

Billions of years of evolution in our universe and here we are; an animal equipped with capacity for curiosity and immense ability to explore and learn about the millions of wondrous creatures with whom we share the earth. Each day, because of us, a little more of the world's magic disappears. We have an unprecedented calling as a [species](#): to decide and act for the rest of life on earth.

The needs of the natural world need to be firmly in view in each problem we set out to solve. In our struggle towards sustainability, we need to make visible the trade-offs. Are hazelnut cream-filled chocolates more important than the right of chimpanzees and elephants to exist? Our mindset of sustainability must include the rest of life. Let us face each day what we lose.

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