## OPINION

## Here's why you shouldn't rake the leaves on your lawn

The 2019 UN report on biodiversity outlined how Earth is on track to lose upward of 1 million plant and animal forms within the next several decades - unless we change.

By Leila Philip , Updated December 13, 2019, an hour ago


A woman rakes leaves in Coeur d'Alene, Idaho. JEROME A POLLOS

Great spangled fritillaries, wooly bear caterpillers, red-banded hair streaks, and the dark amber pupae of luna moths. I stare at my snow-covered lawn and try to imagine the
many butterfly and moth species that could be overwintering in the leaves underneath. We didn't rake the leaves in our yard this year; choosing instead to leave them as shelter for the local wildlife.

The 2019 United Nations report on biodiversity outlined in stark terms how we are on track to lose upward of one million plant and animal forms within the next several decades - that is, unless we change our practices. We can do that in ways big and small.

Leaf litter is its own mini-ecosystem. When we remove it, we also remove a host of beneficial insects and disrupt critical habitats for many small creatures. Equally important, rotting leaves release nutrients back into the soil. It's why trees are often considered keystone species, supporting the interlocking biodiversity of their environments. If we're serious about addressing climate change, we need to reconsider our annual leaf cleaning rituals. Yet habits die hard. Throughout the fall, I stared across my yard, giving my rake wistful glances. By Halloween my lawn was a mess. I even began to wonder what visitors might think.

Here in America, we love our lawns. America's green yards date back to the first suburbs that emerged in the years following the Civil War. Lawns would become democratized as a recognizable institution of American suburban life. I don't live in the suburbs, but even my patch of green is also a throwback to our country's rural history, evoking rolling pastures. If I were more committed, I could install a barn-shaped bird feeder, a tractor themed mail box, a set of plastic ducks, a section of colonial style rail \& picket fence, or any number of agricultural-themed garden features on sale in my local Home Depot.


There are about 32 million acres of lawn in the lower 48 states, according to a 2005 NASA estimate based on satellite imaging. Twenty percent of the landmass of Connecticut and Rhode Island is covered in lawn. In Massachusetts, that figure is slightly higher. A significant 1.9 percent of the United States is covered in turf grasses, which are non-native and require enormous amounts of fertilizer, pesticide, and water to thrive. Translation: a manicured lawn is an ecological dead zone. Even my own bit of green, which is far from manicured as I don't water or use pesticides or chemical fertilizers, would be a detriment to the biodiversity of my yard if I didn't allow the fallen leaves to overwinter and decompose back into the soil.

A first snow has etched the tree limbs white and turned my yard to bone. Underneath is still the dark mystery of soil: the fungi, those strange part-animal, part-plant life forms that can attach so tenaciously to rocks that the pressure eventually makes even granite split, releasing key minerals that the fungi then transport to plant roots. Deeper still, lies a soil ecosystem so vast, scientists have calculated that it is twice the size of that found in the world's ocean.

A few weeks ago, 60 mile an hour winds took down so many trees along our road that our power was out for over a day. Not just old failing trees, but young ones, snapped like twigs. Instead of raking leaves, I spent the last weeks of November raking pieces of tree. And when I think of the rate of climate change and its impacts have accelerated, a messy autumnal lawn suddenly seems a small sacrifice. I also think of the great spangled fritillaries and luna moths and caterpillars tucked under the snow, safe in lovely brown leaf piles, each a critical source of food songbirds will rely on to feed their young come spring.

## Leila Philip is an English professor at the College of the Holy Cross.

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