**Leaf Litter**

“The neighbors will talk about this for year,” my son James said, as I carried into our yard leaves that my neighbors had piled up beside the street. My neighbors had used their fossil fuel driven mowers to blow  leaves from their lawns into the street for the City to pick up and compost. But I had read Iowa City’s Climate Matters Newsletter, which encouraged residents to “Leave the leaves to love the pollinators.”

A link in this newsletter to the Xerces Society for Invertebrate Conservation explains why leaving leaf litter is an eco-choice. The majority of butterflies and moths do not migrate but use leaf litter for winter cover to protect their eggs, caterpillars, chrysalis, and adults. “Red-banded hairstreaks lay their eggs on fallen oak leaves, which become the first food of the caterpillars when they emerge. Luna moths and swallowtail butterflies disguise their cocoons and chrysalises as dried leaves, blending in with the ‘real’ leaves.” Also bumble bees, beetles, millipedes, snails, worms, and other organisms live in leaves and provide food for chipmunk, birds, and countless micro-organisms. And leaving the leaves on the ground returns nutrients to the soil.

Instead of using fossil fuel fertilizers, herbicides, and pesticides on the landscape to keep turf grass green, we should mimic nature and return to the soil the nutrients trees have used to create their leaves. Leaving leaves on the ground also suppresses weeds and retains moisture for the spring cycle of plant rebirth. The Xerces Society reminds us that leaf litter sustains “the natural web of life.”[1]

Won’t leaves covering grass degrade the lawn? It depends on the depth of the leaves, but a layer of leaf litter that protects pollinators would begin to convert grass to fertile soil. Might we make this eco-choice on at least part of our yard, as a way of widening our compassion for other endangered species?

NASA in 2005 using satellite imaging estimated that turf grass is “the single largest irrigated crop in the country.”[2] In addition to the carbon emissions required to mow lawns, fertilize, and attack weeds and pests, about 9 billion gallons of water are used daily to keep grass green. Is this the best use of water made safe to drink by filtering systems that also emit greenhouse gases? Our waste of water is making water scarce in many parts of the United States. Leaf litter is one way of keeping water in the soil.

“Seventy-five percent of the world’s food crops depend on pollination by at least one of the 20,000 species of pollinators, including bees, butterflies, moths, wasps, beetles, birds, bats, and other vertebrates.” Yet a 2016 UN report warns that “more than 40 percent of invertebrate pollinators” are nearing extinction.[3]

The Xerces Society provides [resources](https://xerces.org/pollinator-resource-center) about every region in North America for those willing to make an eco-choice that restores and maintains pollinator habitats.

**Might we reduce our carbon emissions by cutting back fossil fuel lawn maintenance? By creating leaf litter ecosystems for pollinators and other species, we might also mitigate our devastating impact on nature’s life cycles.**

[1] Justin Wheeler, “Leave the leaves!” *Xerces Blog*, Oct 6, 2017, <https://xerces.org/blog/leave-the-leaves>. Butterfly photo by John Flannery/Flickr.

[2] Christopher Ingraham, “Lawns are a soul-crushing timesuck and most of us would be better off without them,” *The Washington Post*, Aug 05, 2015, <https://www.chicagotribune.com/opinion/commentary/ct-stop-mowing-your-lawn-20150805-story.html>.

[3] Carol Clark-Emory, “UN report warns 40% of pollinators face extinction,” *Futurity*, Feb 29, 2016, https://www.futurity.org/bees-pollinators-extinction-1112572-2/.