

## Why Your Backyard Matters

Welcome to My Backyard Habitat, a monthly column that we hope will inspire you to take a closer look at your backyard and the integral role that it plays in providing much needed habitat for our pollinators and by extension all other wildlife.

Quite simply life on earth depends on biodiversity from the tiniest soil microbe to plants, birds, mammals, reptiles, amphibians, and invertebrates. Each species contributes and depends on the other creatures in this fragile web. If enough strands in this web are missing or weakened the entire web, that we call Earth, collapses.

You might argue when venturing outside that birds are chirping and insects are flying around. At the supermarket fruits and vegetables seem to be plentiful. Is there really a cause for concern? Unfortunately, the answer is yes. There is no shortage of sobering evidence that we are losing insects at an alarming rate all over the world. While the phrase Insect Apocalypse sounds rather dramatic a 2021 article in *The Guardian* by D.Goulson, professor of biology at University of Sussex, specializing in bee ecology, calls our insect decline just that, an Insect Apocalypse. He states, "Estimates vary and are imprecise, but it seems likely that insects have declined in abundance by 75% in the past 50 years." According to a 2019 paper published in the *Society for Conservation Biology* titled *Declines in insect abundance and diversity: We know enough to act now* the authors contend, "the severity of reported insect declines is sufficient to warrant immediate action." Science aside, let me ask you this. How many times do you have to clean off dead insects from your windshield these days? How about fireflies, have you seen many lately? Evidence of pollinator decline is not just in the science papers but also evident in our backyards.

This then begs the question, why are we seeing such declines in our insect population? Experts believe we have removed or fragmented habitat in agricultural areas as well as in our towns and cities. A reduction in habitat means less diversity of species and less abundance of those that survive. Add to the mix are the toxic chemicals that are widely used in agriculture—herbicides and insecticides employed in growing corn, soybeans, and many other crops, and the many pesticides applied in the quest for weed-free lawns and perfect-looking roses. There are additional threats from invasive plants and animals, globally distributed diseases impacting bumble bees and other beneficial insects, poor water quality and quantity, and lights that are disruptive to nocturnal pollinators such as fireflies and moths. Overlay all of this with the increase in severe weather events and shifting rainfall patterns caused by climate change, and you can see that it is hard to be an insect in this human-dominated world.

We used to think, and probably still do to a certain degree, that all of this talk of conservation efforts was the sole responsibility of our nature preserves and land trusts. There's plenty of "nature" out there, so why drag my backyard into all this? Think about it this way. If you have 50 houses on one-acre lots with insignificant

habitat for pollinators that's 50 acres of lost pollinator habitat! Imagine how many acres of potential there is, if we all realize that yes, our one backyard can make a difference. If you consider that 86% of the land east of the Mississippi is privately owned then we, and our individual backyards, are the solution to pollinator habitat decline. We need to find ways for nature to thrive in human-dominated landscapes one backyard at a time.

Finally, we get to some good news! Pollinators are one of the easiest groups of declining species to support in a residential landscape, since even small spaces have the potential to meet the most basic needs of the entire insect life cycle—and even simple changes to our landscapes can make a huge difference to these creatures and the wildlife that depends on them such as our songbirds. Why do I mention songbirds specifically? Ninety eight percent of our songbirds rely on caterpillars in the spring to feed their babies. For black-capped chickadees upwards of 9,000 caterpillars are needed to fledge one clutch of babies! All the birdseed in the world won't help our songbird population if they can't feed the next generation!

As you now assess your garden in a whole new light the Xerces Society recommends that you ask yourself these four questions, "Do I know what pollinators need? What does my garden offer? What is missing from my garden? What can I do to fill the gaps?" If you are unsure or want to expand your knowledge there are valuable resources to be found at [pollinatorpathway.org](http://pollinatorpathway.org), [Audubon.org](http://Audubon.org), [Xerces.org](http://Xerces.org), [homegrounnationalpark.org](http://homegrounnationalpark.org) and of course our website and future articles in this column.

Lastly, once you embark on this satisfying journey take the time to enjoy what you've created. Get excited when you see those busy little pollinators who I'm sure would stop to thank you, if only they had the time!