

It's Time for a New Perspective on Bugs

by Danae Wolfe

“EW.” “GROSS.” “KILL IT.” These are some of the most common phrases I’ve heard people say throughout my life when they see an insect. Truth be told, they are some of the most common phrases I used as a young girl who grew up with a deep-rooted fear of anything with more than four legs. Don’t get me wrong. As a child, I loved gardens. I loved flowers. But I hated insects, and I loathed spiders.

MY BUGGY JOURNEY

When I was 12 years old, my parents bought me my first camera, and so began my obsession with photographing flowers. This obsession lasted well into my college years, when I took my first environmental studies course as a junior at a small liberal arts school in Ohio. At the time, I was a declared fine art major struggling to reconcile the differences between fine art photography and nature photography.

Thankfully, that one environmental studies course (which I took only because I needed it to graduate), provided unexpected clarity. I swiftly changed majors and swore I would dedicate my life to environmental education.

Around the same time, I received my first macro lens as a Christmas gift from my parents. There is something overtly intimate about using a macro lens. With macro photography, you need to be physically close to—intimate with—the subjects you’re photographing. That macro lens, paired with my newfound love of nature and passion for environmental education, changed my perspective of the garden forever.

After graduating, I spent countless mornings, camera in hand, waiting for the golden sunrise to graze the wildflowers in the field next to the visitor center where I worked as a National Park Service interpretive ranger. In those fields, I took thousands of photos and, consequently, I discovered a new world.

It would be nearly impossible to spend time making friends with flowers and not also make friends with the many creatures that use those flowers as homes, as dinner plates, or as beds. And yet, so often, these little creatures go unnoticed and underappreciated.

The love and appreciation I feel towards insects cannot be defined by a single eye-opening moment but rather by a series of fleeting moments spent observing and photographing them in natural spaces. From the time I watched a pale green assassin bug nymph emerge from its test tube-like egg to the month I spent observing a colony of oak treehoppers, my appreciation of insects has grown deeper with each passing year.

INSECTS, INSECTS, EVERYWHERE

Insects, spiders, and other arthropods exist all around us and provide fundamental



Creating positive experiences for children and adults to interact with insects and spiders can help shape attitudes and conservation efforts of these important animals.



Macro photography allows us to see insects in a new light. Above, left: On the far left, the female oak treehopper (*Platycotis vittata*) watches over her newly emerged adult offspring. Above, right: The first of several dozen pale green assassin bug nymphs (*Zelus luridus*) emerging from an egg mass.

ecosystem services in the world. These ecosystem services include pollination, decomposition, nutrient recycling, soil aeration, and balance. Arthropods provide an irreplaceable link in many food chains while keeping populations of other arthropods in check through predation and parasitism. Even our most pesky landscape insects like mosquitoes play an important role in providing food sources for other wildlife.

In total, the economic value of insects in America is valued at over \$57 billion annually. Considering nearly three-quarters of our flowering plants—many of

them food crops—rely on insect pollination, it's easy to see from where this economic value stems.

Despite the many benefits of bugs, though, public misunderstanding and fear persist. For decades, insects and spiders have been portrayed negatively in the media. From films like *Arachnophobia* to more recent media scares about murder hornets (also known as Asian giant hornets or *Vespa mandarinia*), negative media portrayal has fostered mass concern and misjudgment of these beautiful animals.

Even the language we use to describe and educate the public about insects and spiders may dictate how people feel about these creatures. The importance of language was made clear to me by one of my favorite conservation photographers, Piotr Naskrecki, an entomologist and research associate with the Museum of Comparative Zoology at Harvard University in Massachusetts.

While searching for insects to photograph in the cloud forest of Mindo, Ecuador, during a macro photography workshop in 2019, I discovered a tiny lace bug on a leaf. I snapped a few photographs before hearing Piotr exclaim, “What a beautiful animal!” His words were simple, yet profound. I had never before heard someone refer to an insect as an animal. The use of the word “animal” to refer to an insect instantly elevated their position in the arbitrary hierarchy of animal superiority we humans have prescribed to the world. The use of the word animal somehow made insects equally important to any other creature to which we extend unwavering appreciation.

SEEING THE TOTAL PICTURE

The perception of insects as inherent pests in our gardens must shift. While some insects—like termites and many of our invasive species—are truly pests and must be controlled to maintain the integrity of our homes and our ecosystems, a huge majority of the insects in our landscape are harmless. In fact, many provide benefits unmatched



Colony collapse disorder has forced farmers to reexamine their relationship with the non-native European honey bee (*Apis mellifera*) as a primary pollinator of many food crops, such as apples.



We must start viewing gardens as part of the ecosystem and share them with wildlife. Above: Replacing a front lawn of turf with a diversity of plants creates valuable habitat. Right: An Eastern tiger swallowtail sips nectar from a garden zinnia.

elsewhere in the natural world. Scientists estimate that of the nearly one million known insect species in the world, only 1 to 3 percent are pests and less than 1 percent are plants pests. Why, then, are insects and spiders so often portrayed negatively?

Public misunderstanding paired with an incessant desire to rid our yards of insects has resulted in declines of insect populations around the globe. Over the last few years, these declines have been touted as an Insect Apocalypse. Fortunately, for many creatures, it's not yet too late to change our ways and reverse the trend. We can start in our gardens.

Like many Americans, I was indoctrinated into the societal norm of managing my landscape to be little more than a few perfectly weeded garden beds and a carpet of sterile green grass. I believed most insects were pests, spiders were scary, and holey leaves were a travesty.

Today, I recognize a garden as more than just a sterile landscape of botanical



statues. Through photography, I have come to learn that a garden is a *living, breathing ecosystem*. A garden is an opportunity to support, even create, life—and insects are part it, just as we are.

In the upcoming issues of this column, I'll share the wonderful and wacky stories of insects, the science behind bugs, and ways that will highlight how we, as gardeners, can help support these animals in our home landscapes. Through these discussions, I hope you'll

come to appreciate insects in the same way I have.

It's amazing how a macro lens and a shift in angle can change one's views forever.

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