

WHAT BUGS YOU ABOUT BUGS?

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As gardeners, many of us pour our hard work into creating a relaxing, attractive space, that produces beauty and or food for ourselves, our family and our friends without giving insects so much as a second thought; except perhaps by lighting candles to keep them away or spraying ourselves with chemicals to keep them from biting. We love to make our gardens into private spaces for respite during our shorter warm seasons. Magazine worthy. No flaws. Show them off to our fellow gardeners. It is no surprise then that we get frustrated when our hard work results in a buffet for wildlife; be it the many legged, four legged, two legged, no legged or winged varieties. We fuss over the holes they leave in our leaves, the devouring of our pretty flowers, or the destruction of a vegetable. Are we forgetting that we are guests in their homes and therefore we need to get along as best as we can? We manipulate their habitat, plant inedible food for them, take away their sources of natural food and water, remove their shelter and add additional lighting at night which confuses them and interrupts their mating rituals. But why should you care? They are just little annoyances anyway. But are they really?

According to our scientists, our insect and invertebrate creatures are disappearing at alarming rates. ScienceDaily[1]recently wrote: “Humanity is pushing many ecosystems beyond recovery. As a consequence, unquantified and unquantifiable insect extinctions are happening every day. Two scientific papers by 30 experts from around the world discuss both the perils and ways to avoid further extinctions, intending to contribute towards a necessary change of attitude for humanity’s own sake.”

We should be very concerned about what we do in our gardens. We need to ask ourselves how we can achieve a similar result with little to no harm. Ask yourself if you have taken the time to educate yourself about what lives where, about its life cycles, about its required habitat. Do you deliberately leave or develop areas in your garden for bugs? If all you worry about is how pretty your garden looks then you are seriously missing out on the real joys and mysteries of your garden.

Many of us have happy memories of catching and releasing fireflies on warm July evenings. I grew up in the beaches area in Toronto and fifty years ago we had no trouble finding them and filling our jars with the little blinking bugs. Now, living in the outskirts of the city, in an area where there should be many, it makes me sad to say, but this summer I have seen none, and last summer I saw only one. Lucky are those who live or recreation in the country because they can still be found there. Ask yourself why that is? The answer might scare you!

Two years ago we moved to a property that was wet and boggy because of the runoff from the properties behind us. Our garden was full of toads though so as a gardener I was thrilled to see so many. Our municipal representatives came to our property twice, at our behest, to observe the water runoff after a rain and both suggested that we install weeping tiles on three sides of the property. “But what about the toads”, I asked. “They will all disappear”. They looked at me like I had two heads. They had not considered the ramifications of their suggestion and were

not concerned in the least. Their reply? "I don't know, I guess they will move on". Really? Is that a good enough answer?

Now you might say that fireflies and toads are of no concern to you and that I am ridiculous for being concerned about them, but I would suggest to you that as gardeners we should all be very concerned about the creatures living in the ground, on the ground and in the air.

I did a really informal survey with five well educated women and fellow gardeners, over a coffee, about what bugs them about bugs. Their answers were of no particular surprise, however, when I asked them secondary questions about their responses, we all got a little more inquisitive and everyone pulled out their phones to look things up. For example: fireflies, well everyone loved fireflies. That was unanimous. Happy summer evening memories from our youth. I asked them if they knew anything about how fireflies multiply and did they know that the beetle larvae live subterranean for almost a year before the beetles emerge? Many of our bugs go under ground to survive the Canadian winters. Why is this important? Now think about that grub killer you pour on your lawn this Fall and wax poetic about fireflies again and wonder why there are so few. Can you turn over your lawn surface and identify the creatures there? Probably not. You might say "they kill my grass" or the racoons dig up my lawn to get at the grubs". My answer to both of those responses is so what? Let the critters eat the grubs. Fill in the hole. Simple. No chemicals. Is it magazine worthy? Probably not. Again I say, "so what"? Nature is perfectly imperfect and we admire its beauty. Or how about those lovely lights you strategically placed in your garden to light up those beautiful grasses you planted. Very pretty, sounding lovely in the breezes while you sip your wine, but did you give any thought as to how it might interrupt the mating of fireflies? Those tiny beetles climb all the way up those tall grasses, where they flash to attract a mate. Their little light cannot possibly compete with accent lighting. It's a wonder we have any fireflies left. Here is a 2 minute video from the University of Connecticut which discusses their research on fireflies. I must warn you, the larval stage is rather different from the pretty beetle. If you saw the larva, would you want to kill it? It's pretty ugly [2]. <https://phys.org/news/2018-07-video-life-firefly.html>

Back to my toads. You guessed it. No weeping tiles. Besides the expense, it would send all of the polluted water from the roofs and lots of the houses behind us, the polluted water from our roof and property and send it untreated to the street sewers where it would go directly into Lake Ontario. Horror! My personal mantra as a serious gardener: Do No Harm! You can borrow that if you like.

People often tell me how much they would like to encourage toads to their garden to eat insects. My reply is always "great!" We do a little walk around their garden. Very pretty. Magazine worthy. I'm always amazed when I see hostas looking so perfect. No holes. I ask them how they achieve that result. "Oh it's relatively easy. I put down traps for those disgusting slimy slugs. I hate them. They are so gross" HmMMM. We move on to their roses. Boy, say I, those look great. How do you get them so perfect? "Oh, it's relatively easy. I spray them". HmMMM So at the end of our little tour I point out that they will have to incorporate hiding places for the toads in damp dark corners of their perfectly manicured garden which will bring in more insects, and that they have unknowingly killed all the existing food sources for the toads and

that they will have holes in their leaves and probably some kind of grub. “Would you be willing to change your cultural practices to help your garden bugs”? If you are serious about getting toads you will have to.

I decided to take a rain garden course last summer and have subsequently built two rain gardens. One on each side at the back of our property. Water problem solved and I now have even more happy little toads. I highly recommend you consider adding a boggy area to your property to encourage all things critters. This picture of my second rain garden shows that both function and beauty is possible in a rain garden.

Certainly there are invasive bugs. Japanese beetles come first to mind. The list can go on and on. They are a real problem and, yes, you need to be diligent about catching them and drowning them. There are others like earwigs or emerald ash bores. OMAFRA is an excellent resource to use when identifying invasive insects. [3] We have so many useful insects like ladybeetles and lacewings and the beneficial insect list is long. Most insects play a pivotal role in our ecosystem. They are food sources. Garbage collectors. Pollinators. Not very many of them are pretty in all of their developmental stages, in fact, some are downright ugly. Get to know them. A world without insects would be disastrous all the way up the food chain to humans. What are you killing? According to Science.HowStuffWorks.com we would be in a real pickle if our insects disappeared. This is an easy read. Great for perusing over that coffee cup tomorrow morning [4].

So when you say “I love lady bugs” and “I hate spiders”, be honest with yourself. Yes, Lady bugs are cute and cartoony and, yes, spiders might not be your favourites as they crawl out of pretty flowers or from under your mulch, but do you know that they both eat aphids? Yum yum. I’m happy that spiders are around to tell me I have an aphid problem. Knowing this, my visiting spiders and I can be all “kumbya”. Gross yes! Helpful yes! Here’s a cute little spider named Lucas who may change your mind about these helpful creatures. He’s adorable.

<https://www.youtube.com/watch?v=2QaCANDgxns>

Before you kill another insect, or slimy slug, or grubs in your lawn, make sure you know why it’s there, or consider if you think you can change your gardening habits, or even better, get a magnifying glass and a notebook, and really find out what goes on in your garden during the day or even better, under the cover of nightfall. It’s really COOL!

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[1] <https://www.sciencedaily.com/releases/2020/02/200210074240.htm>

[2] <https://phys.org/news/2018-07-video-life-firefly.html>

[3] <http://www.omafra.gov.on.ca/english/crops/insects/insects.html>

[4] <https://science.howstuffworks.com/science-vs-myth/what-if/what-if-insects-disappeared-from-planet.htm>



phys.org

[Video: Life cycle of the firefly](#)

A firefly's life cycle encompasses much more than the three to six weeks when the adults light up summer evenings. UConn professor of physiology and neurobiology Andrew Moiseff and his research team are working to learn more about the larval stage of these charismatic insects by studying aspects of....