What comes to your mind first when you think of insects? Probably the ones that bug you the most, is my guess. I bet ticks are high on the list but they are, technically, not an insect. They are in the arthropod family, as are spiders. Mosquitoes are probably high on the list. They, along with other blood meal seeking "bugs", such as mosquitoes, bed bugs and fleas, are insects. For us non-scientists, they are all bugs. Many of us are afraid of them; some are fascinated by them.

The people who study them are called entomologists and maybe in a past life I was one or in a future life will be one, for I find insects fascinating! The study of insects is critical to public health and to the health of the earth. There is so much to learn about them, including how to keep them and the roles they play in balance. Some farmers want more pesticides to ensure the survival of their crops. Others want better ecologically safer solutions so that we are not destroying beneficial insects, including the benefits of insects, whether or not we like them.

Even mosquitoes have some benefits. The males anyway, are considered pollinators, as only the female needs the blood meal. And while the female is trying to make sure she can produce a healthy brood, the males go tip toeing through the tulips.

Predator insects are sometimes released to control flies or weeds. When the "problem/food source" is depleted, the predator goes away.

Insects are an important food source. Cricket powder is currently available as an affordable sustainable source of protein for animals and for people.

During times of war it was observed that the untreated wounds attracted flies, which, in turn, produced maggots and those wounds healed faster than the treated wounds. Yes, that's right, maggot therapy.

Insects digest the waste in your compost pile. Can you imagine what the world would look like if every leaf that fell, every garden plant that wilted, every dog, cat, coyote, raccoon, and bird poop just lied there building up? The world would be a stinking mess without them! The crows and vultures can't handle it all! Whew! It is a good thing we have Saprophages, insects that eat rotten stuff.

You know about honey and silk being produced by insects and others are used to produce colorful pigments. My childhood memory for this category of usefulness is in the making of shellac. My father was a great wood worker and would talk of the "shellac bug".

Studying insects and their larvae help to solve murder mysteries and the time of death.

Yet, insects get a bad rap.

Sometimes, though, especially with young people, there is simply a fascination borne of curiosity that leads them to observe and study insects. Encouraging a child's interests is something all good parents do. One mother of Ontario, Canada, admired and supported her daughter's interest in insects but knew she had to do something when she saw her little girl arrive home from school sad and crying because others had taunted her, calling her "weird and gross".

So, the mother went to the experts. She wrote to the Entomology Society of Canada and asked for help, asking if someone could talk to her for five minutes or perhaps become a pen pal. "I want her to know from an expert that she is not weird or strange (what kids call her) for loving bugs and insects," the mother wrote. She added, "Sophia loves bugs because they can do incredible things for their size, they are sticky which allows her to have them crawl on her without falling off, and because they scare adults."

Of course they were interested! They introduced her to a PhD candidate who welcomed the opportunity.

The story went viral on twitter.

.@CanEntomologist #BugsR4Girls #becurious

Sophia became "cool", stopped being sad, stopped being bullied, and gained friends. Now, other children now bring bugs to her, eagerly asking her to identify them.

While Sophia and her wonderful mother and the wonderful entomologists solved a problem, this story highlights so much that can be done for children and society as a whole.

Not making fun of others is a good thing.

Helping children who are being bullied is a good thing.

Supporting others in their pursuit of happiness is a good thing.

Giving children the support and encouragement they need is a good thing.

Encouraging hands-on activities and curiosity is a good thing.

Getting outdoors in a world full of digital distractions is a good thing.

Reaching out for help from others is a good thing.

Adults being inspired by children is a good thing.

For the full story of Sophia, look at:

 $\underline{http://metro.co.uk/2016/08/31/a-little-girl-was-being-bullied-for-loving-bugs-and-people-wouldnt-stand-for-it-6101760/}$

Cathleen Drinan is the health agent for Halifax. She welcomes your feedback. She loves bugs and she doesn't bite. You can reach her at 781 293 6768 or cdrinan@town.halifax.ma.us #Entomology #StopBullying #LoveBugs