# Kids Ask Dr. Bug

Home to more than plants, kids ask Dr. Tamra Reall about the curious things found in the garden.

### **March 2019**

### Why don't moths have color? Aliya, 9

Most, but not all, moths fly at night when there isn't much light. As moths are a tasty meal for other animals, camouflage is critical. Like ninjas, the unshowy colors blend into the background. Many moths look like tree bark, dried-up leaves, or even bird poop. On the other hand, some moths are very colorful as bee or wasp mimics, and some look like hummingbirds. And still, others are huge, beautiful, fluttering-flowers, such as the Luna and Cecropia moths.

## I just learned how honey bees stay warm in the winter, but it's been so cold this year. Are the bees going to be okay? Emma, 9

You may have learned that honey bees buzz their wings to keep the colony warm through the winter. When hive temperatures dip below 64 F°, honey bees cluster together to



Luna moth, Photo by David notMD, CC BY-SA 4.0

keep each other, and especially the queen, warm. They move deep into the hive and move around as a group to feed on the honey gathered in the summertime and stored for the cold season. As long as they have enough food nearby, the colony will probably be okay even though many individual bees will die. I used to check my hives in the winter by putting my ear on the hive. If I could hear it humming, I knew my bees were still alive.

### How do insects know when to come out of hibernation? Caleb, 8

Insects in a hibernation-like state, called diapause, have an impressive ability to "wake up" at just the right time to start doing their buggy things. Some insects start moving as soon as temperatures outside reach ~50 F°, for others it isn't the temperature that wakes them up. If these insects were to start moving too early and then it got icy again, they wouldn't survive. What else changes besides temperature throughout the seasons? If you said daylight, you're right! Many insects respond to the changes in daytime length. When the days are long enough, they know spring is here!

#### Why do centipedes live in the soil? Emmanuel, 10

If you could look underground, what do you think you would see? Even though we feel we're walking on a solid mass of dirt, there's a highly structured system going on under there -- all sorts of organisms thriving on a microscopic scale in a network of tunnels and crevices. This includes centipedes that hunt other critters and live most or all of their lives without ever seeing the sun. Note: not all centipedes live in the soil! Are you squeamish? If so, don't read the next part. . . there is a common house centipede that may be a guest in your house. While all those legs look intimidating, it is harmless to you and very helpful by eating other less desirable critters found in your home.

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