

With the arrival of warmer weather, comes the abundance of life, from calves prancing in the fields to the blooming of spring and summer flowers. Here comes another L.A. resident, the “no-see-um,” midge, or gnat. The term "gnats" is used to describe pretty much any kind of tiny fly. There are some midges called “dance midges” that like to swirl around in small swarms in the yard. I always thought they were called “dance midges” because of the reaction of people caught up in a swarm; the rapid flailing of arms and bobbing of the head as folks try to escape the little buggers.

There are over 4,000 species of midges worldwide and over 600 species have been described in North America, the vast majority of which either feed on other insects or other *non-human* animals. Gnats belong to the order of all "true" flies, ones with two wings, named *Diptera*. The two main types of midges are generally divided into biting midges (family *Ceratopogonidae*) that suck blood and non-biting midges (family *Chironomidae*). The non-biting midges are sometimes referred to as gnats or are mistaken for mosquitoes.

Fungus gnats, *Bradysia coprophila*, are common in and around homes, and can usually be found hiding out in potted plants. These gnats are small, grayish to black flies that are 2 ½ millimeters long and resemble tiny mosquitoes (minus the bloodsucking – they don't eat people). Their legs are long and slender, and their skinny antennae are usually longer than their heads. Their wings are shades of gray. Fungus gnats are relatively weak fliers and generally remain near potted plants, often running or resting on soil or leaves.

Fortunately, fungus gnats do not threaten human health directly. These pests can be vectors for plant diseases. “What's a vector,” you ask? It's an organism that transmits pathogens, which is basically a fancy word for germs. If you have a sick plant, fungus gnats can spread it to all your healthy neighboring plants. Fungus gnats can also vector several different fungal root rots, including ones called Fusarium and Pythium, and even foliage pathogens like Botrytis. As if that's not bad enough, fungus gnats' larvae make breakfast, lunch and dinner out of your plant's roots.

So there's Good News, and there's Bad News: The Good News is adult fungus gnats only live about a week. The Bad News is that the female will deposit 100-150 eggs on your plant's soil surface. These eggs are laid in strings of three to 40 and can hatch within four days of being laid! The larvae are clear to creamy-white and can grow to about 5 ½ millimeters long. The larvae feed on root hairs in the upper soil, then work their way into the plant stem. They also love to feed on the roots of your newly planted seed, so watch those seed-starting trays in spring! The larvae feed on highly organic soils, too. After feeding for approximately 14 days, the larva pupates. In about three and a half days, an adult will emerge from the case. The total life cycle takes two to four weeks.

There is a two-fold key to prevention. The first is to avoid overwatering your plants. Not only is overwatering bad for your plants in general, but overwatering to fungus gnats is irresistible, akin to having m&ms in a bowl for the grandkids. The kids may not be around all the time, but the second they arrive they are going to gravitate directly to that bowl.

The second key to prevent fungus gnats is to inspect the soil of a plant before bringing one inside your house. Do you see gnats buzzing around it? When present, the adult gnats are very active on the surface of the potting media, often running along the edge of the pot. If you see them, that's not a good sign. Put the plant down! Let the soil dry or cover the soil with some barrier, such as sphagnum moss, will keep the flies from nibbling on your plants.

Check your plants for fungus gnat larvae by watching for declining plants, or unpotting the plant and examining the soil for white to translucent, slender bodied, black headed maggots. The gnat larvae will usually be clustered around decaying roots and rhizomes. Here's a few ways to help control fungus gnats: repot your plants on a regular basis; use mixes containing materials, such as charcoal and coconut fibre, that are slow to decay; do not keep the soil constantly wet; and allow the soil to dry between waterings.

There are many, many, many more types of midges, or flies, or gnats, or "no-see-ums", whatever you'd like to refer to our winged pests as than can be covered here all at once. To close, here's a bug riddle for you: If there are 5 gnats in the kitchen, how do you know which one is the football player? He's the one in the Sugar Bowl!