

Friendly Flies

What's all the buzz about?



James Clayton

By Karin Verschoor, Gloria Van Duyne, and Dave Nelson

Basket in hand, I approach the picnic table, thoughts of traffic on the ride here quickly fading into the background. Eagerly, I anticipate the summer's first picnic; good food and drink in a beautiful outdoor setting. As I carefully weave my legs under the table, I discover this spot seems to be enjoyed by other creatures, smaller than my family and me. But it's not ants that are spoiling my lunch; these are flies, and lots of them. Almost a swarm, in fact, but they aren't biting, they're just annoying.



Eric Mayer

It's my turn to meet one of nature's oddities, the "friendly fly." A relative of the house fly, friendly flies are so named because they like to land on people; they don't bite, and they stay unless brushed off. They are too tame and friendly to leave on their own.

Friendly flies can be infuriating, especially when large numbers of them suddenly appear at your outing. Having hundreds of flies swarming around and landing on you is not

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much fun. But aside from their sometimes irritating behavior, friendly flies are harmless to people. They are not known to carry dangerous diseases. In fact, friendly flies are actually a blessing—they keep forest tent caterpillar populations in check, and thereby save our valuable woodlands from total defoliation.

You see, friendly flies are natural predators of the native forest tent caterpillar, and the two species' populations are tied together in a classic predator-prey cycle. Forest tent caterpillar outbreaks occur every 10-15 years. At its peak, the population gets so dense that there is massive forest defoliation. Entire

Identifying a friendly fly isn't difficult. It resembles a large house fly, but when it lands on you, it tends to stay unless brushed off. If you take a closer look—and a friendly fly is sure to remain still long enough—you can see that it sports a striped thorax (middle-section) and a checkered abdomen, a fashion mismatch of stripes and checks (see above image).



hillsides of trees will be completely stripped of leaves, as we've seen over the last few years in parts of New York.

During the height of the caterpillar's cycle, trees may be defoliated for two or three years in a row, causing some trees to die. Others will recover, but defoliation is a big setback. Loss of foliage means starvation for a tree; without leaves, a tree cannot make food. While trees can produce a second set of leaves after a caterpillar attack, doing so is a major drain on their energy reserves. These stressed trees may not be able to produce as much wood or seed, and they are also more susceptible to other harmful factors like drought and disease.

The caterpillar populations may cause significant tree damage, but to the

friendly fly (the specialized insect that feeds on them), they represent a bountiful buffet. As caterpillars increase in number, the predator species responds rapidly to this abundant food source. On the other hand, few bird species will eat the caterpillars because they are covered with irritating hairs.

Friendly flies lay eggs on forest tent pupae, the stage in which the caterpillar transforms into a moth. The eggs hatch and the larvae eat the pupae, then drop to the ground to form their own pupae, which emerge the following spring as adult flies.

This predator-prey relationship forms a "boom-and-bust" cycle. Usually the year after a prolific forest tent caterpillar

outbreak, friendly flies seem to be everywhere. Suddenly prey numbers crash because of high predator populations. In response to a declining food source, predator numbers dwindle. At the "bottom" of the cycle, it would be difficult to find either caterpillar or fly.

Understanding the important role that friendly flies play in nature's web of life may help you accept their presence, knowing that the trees around you will be better off as a result!

So, maybe they aren't so annoying after all.

Karin Verschoor and **Gloria Van Duyne** work for DEC's Division of Lands and Forests in Albany, and while both are students of the natural world, they prefer picnics to flies. **Dave Nelson** is Editor of the *Conservationist*.

James Clayton

Government Flies?



Because of a persistent myth that the government releases them to control forest tent caterpillars, friendly flies are sometimes called government flies. Although they do control forest tent caterpillars, they aren't from any sort of government release program. And while DEC does not release friendly flies, presence of the flies is welcomed by forest landowners and those who monitor forest tent caterpillar outbreaks.



Frank Hagen