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OBSERVATORY

## The Buzz of Bees, Though Benign, Halts Caterpillars' Munching

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It's a tangled web that nature weaves. The typical ecosystem is filled with organisms that are linked in some way — one preys on the other, or lives off the other parasitically, or depends on the other in some way.

Honeybees and caterpillars, however, have little to do with each other, even though they often exist in the same ecosystem. The [honeybee](#) pollinates plants while foraging for nectar; the caterpillar eats foliage. They are like two ships passing in the night.

So it may come as a surprise to learn that honeybees actually have an impact on caterpillars, in an indirect way. The buzz of bees flying by, researchers report in *Current Biology*, causes caterpillars to stop destroying plants.

Jürgen Tautz and Michael Rostas of the University of Würzburg in Germany conducted a simple experiment with pepper plants and beet armyworm caterpillars in two enclosed tents. A hive was connected to one of the tents, and honeybees flew around on their way to two sugar-solution feeders inside the tent.

After about two weeks, the researchers measured the amount of plant foliage eaten by the caterpillars. In the tent with the bees, they discovered, about 60 percent to 70 percent less foliage was consumed compared with the other tent.

Like many other caterpillars, the army beetworm has sensory hairs that are stimulated by airborne vibrations. And like many other caterpillars, this species is preyed upon by wasps. So it has a [wasp](#)-avoidance technique: when it senses the vibrations, it stops moving or drops off the plant.

The researchers suggest the caterpillars do the same thing when they sense the vibrations from honeybees. So even though the bees don't prey on caterpillars, they have a deterrent effect, helping plants in the process.

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