

Genetic beacon could detect ‘invasive scourge’ of stinkbugs before they ravage crops

If a farmer can grow it, a brown marmorated stinkbug can destroy it. This invasive scourge has ravaged apples, peaches, tomatoes and more than 100 other crops across North America...But there is hope: Borrowing techniques from aquatic science, researchers have discovered a genetic beacon that could raise the alarm in the earliest stages of an invasion—when there is still time to act.

The scientists found traces of brown marmorated stink bug DNA in the water farmers used to rinse their produce, they report in a study, [published in June in *Frontiers in Ecology and the Environment*](#). This sampling of “environmental DNA” revealed the bugs’ cryptic presence on farms well before traditional insect trapping techniques could do so.

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The researchers...sampled two liters of the farmers’ rinse water. They also set black light and pheromone-baited traps to physically capture the bugs.

As expected, the team detected brown marmorated stinkbug DNA in all water samples from [a] New Jersey orchard. Curiously, they also found the pest’s genetic material in rinse water from [a] New Hampshire farm on all eight days they sampled there. On the final day of testing a tiny immature stinkbug wandered into the pheromone trap, visually confirming the group’s positive DNA identification.

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This pest is uniquely devilish, swarming people’s homes in winter—often by the thousands—and devouring farmers’ cash crops in summer. In 2010 the bugs consumed apples worth some \$37 million alone.

Read full, original article: [Scientists Pick Up the Genetic Scent of Stinkbug Invaders](#)