





H13N-1192 Pied Piper trap

 Monday, 9 December 2024
 13:40 - 17:30
 Hall B-C (Poster Hall) (Convention Center)

Abstract

The Pied Piper trap is a relatively low-cost vibrational camera trap designed for monitoring specific species of treehopper, leafhopper, and stink bug. It is designed to detect the mating calls of these insects (present as substrate-borne vibrations) and lure them towards itself by playing back prerecorded mating calls of the opposite sex. The trap is equipped with a camera, which allows for photographically verified detections and serves as a general-purpose insect camera trap. The device records the exact time and date of every detected mating call, and this allows it to provide data on the activity patterns of these insects with significantly higher temporal resolution than existing methods. Additionally, simplified versions of the trap, operating on timers, were field-tested in June 2024. Deployed in vineyards, the Pied Piper traps aim to lure insects away from crops and monitor invasive species like the Brown Marmorated Stink Bug (BMSB). These traps provide a humane monitoring method and present an opportunity for research on the impact and activity of invasive insects.

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