

Pales Weevil

Hylobius pales (Herbst)

Coleoptera: Curculionidae

Raffa, K. F.; Hunt, D. W. A. 1988. Use of baited pitfall traps for monitoring pales weevil, *Hylobius pales* (Coleoptera: Curculionidae). *Great Lakes Entomology* 21: 123-125.

Objective: To determine if ethanol and turpentine baited pitfall traps are an effective tool for monitoring *H. pales* populations.

Abstract: The pales weevil, *Hylobius pales* (Herbst), is a serious pest of young pine, *Pinus* spp., plantations throughout eastern North America. Pitfall traps baited with 95% ethanol and turpentine (52.5% α -pinene, 41.4% β -pinene, 2% γ -phellandrene, 1.1% limonene, 0.9% camphene and 0.7% myrcene) were used to monitor *H. pales* populations in Wisconsin. This study was carried out in a 15-year-old plantation of Scots pine, *Pinus sylvestris* L., which was already suffering high mortality from the pine root collar weevil, *Hylobius radialis* Buchanan.

Male and female *H. pales* were attracted equally to this bait combination. Neither component alone showed any attractiveness. Approximately 75% of all weevils were trapped during July, with the remainder collected in August. Future studies are aimed at estimating the relationship between trap catch and tree damage, mainly to facilitate the integrated pest management (IPM) of *H. pales*.

Sampling Procedure: Use sections of 20 cm long by 10 cm diameter plastic PVC pipe (see Tilles and others 1986). Drill eight 6-mm entrance holes around the circumference of each trap, 4 cm from the top. Coat the inside of each trap with liquid Teflon (DuPont de Nemours, Wilmington, DE, USA) to prevent *H. pales* escape. Use a combination of 95% ethanol and turpentine (Sunnyside Corp., Wheeling, IL, USA) as bait. Place each bait component separately in 12 by 35-mm (0.5 dram) glass vials. Drill two 2-mm holes below the entrance holes and attach a small wire through the 2-mm holes. Suspend each bait in the trap from this wire. Cap both ends of each trap, and drill two holes in the bottom cap to allow water drainage. Bury each trap in the ground so that the entrance holes are flush with the soil surface. Coat the above-ground portion of each trap with black paint in order to simulate a stump. Empty each trap and replace baits weekly.

Note: Space eight traps uniformly across the area to be treated.

Reference:

Tilles, D. A.; Sjodin, K.; Nordlander, G.; Eidman, H. H.. 1986b. Synergism between ethanol and conifer host volatiles as attractants for the pine weevil, *Hylobius abietis* (Linnaeus) (Coleoptera: Curculionidae). *Journal of Economic Entomology* 79: 970-973.