

## Shot-hole borer - *Xyleborus dispar* F.

The female beetles are 3.2–3.6 mm long. The dorsal part of the thorax is conspicuously vaulted, with dense bristles in front. The elytrae are cylindrical. The body is black, the elytrae are brown, the legs and antennae are yellow. The males are smaller (1.8–2.1 mm), they cannot fly, so the trap catches only females.

**Host plants include:** apple, apricots, and other orchard and forest trees. It can develop also on vines, *Sambucus*, exceptionally on coniferous trees and *Thuja* ssp. **Damage:** there are small round "shot-holes" on the bark of attacked trees. The pest bores its tunnels inside in the xyleme. The main tunnel leads directly into the wood, then it branches at an annual ring and goes round horizontally. There are secondary tunnels starting from the main one, going up or down perpendicular to the main tunnel. On young trees the main tunnel goes inside to the middle of the branch, then secondary tunnels go up and down from here. All tunnels are of similar width.



*The beetle, which is captured in the trap*



The attractant-baited trap should be placed beside the trunks of trees, on poles, or hanged from lower branches, at a height of 1-1.5 m. Usual beginning of trapping in Hungary is beginning of April. All accessories are provided with the trap, however, the bait liquid (ethanol; ethylalcohol, min. 20%; ca 0.2-0.3 litre) should be filled into the bait container of the trap by the user. Household ethanol is suitable, other ethanol solutions (min 20%) can also be used. Denatured alcohol or methanol IS NOT SUITABLE! The sticky cloak trap PALX is transparent. According to our tests the red colour of the *Xyleborus* trap suggested by others[1] had no influence on catches.

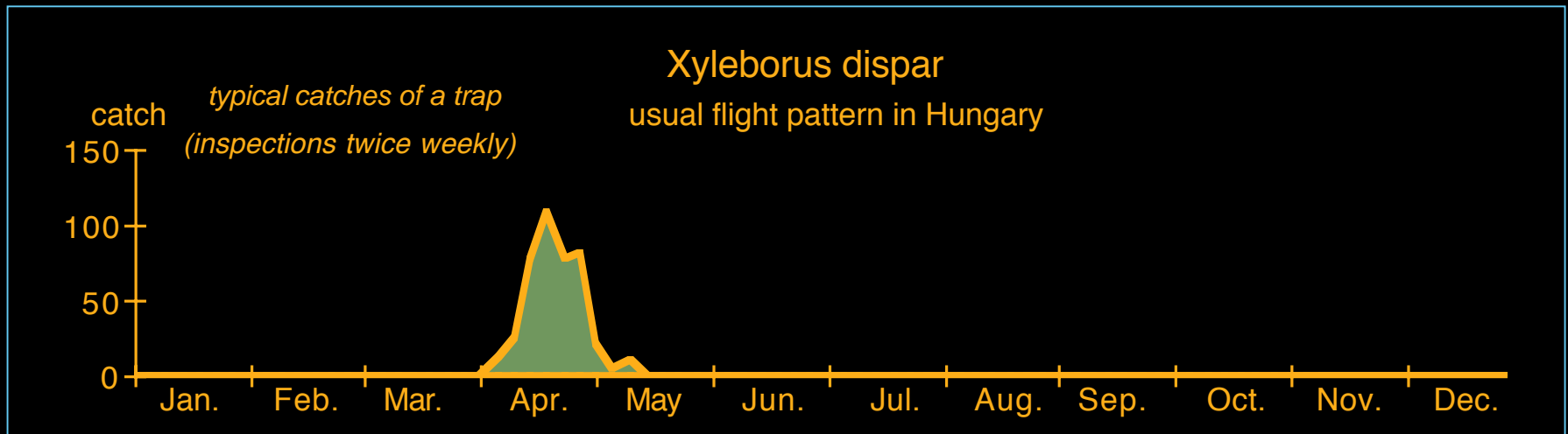
*The beetle, the larva and their damage which should be averted*

Selectivity of the CSALOMON® trap (based on tests performed in Hungary): during the usual flight period of *Xyleborus* the bait attracts only the target pest in orchards. In a forest environment other bark beetles may be attracted. Other insects caught on the sticky surface of the trap are chance captures.

Longevity of the CSALOMON® trap in field conditions: Depending on the warmth of the weather according to experience a 0.2-0.3 litre amount of 20% ethanol retains its attraction for at least 8-10 days. After this period the bait container can be refilled (after having removed the remaining dilute solution).

With the traps one can establish whether shot-hole borer is infesting the orchard in question or not. If yes, the time of occurrence of the adults can be pinpointed, and population changes during the flight can reliably be followed. Insecticide treatments are most efficient when performed right after the occurrence of first catches in our traps.[1] According to Swiss experience, traps used at 8-16 trap/ha density could decrease attack levels in orchards.[1]

[1] Mani, E. et al., *Acta Phytopath Entomol. Hung.*, 27:425-433, 1992.



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The CSALOMON® PALX trap catches *Xyleborus* on its outside sticky surface

*Xyleborus  
dispar*

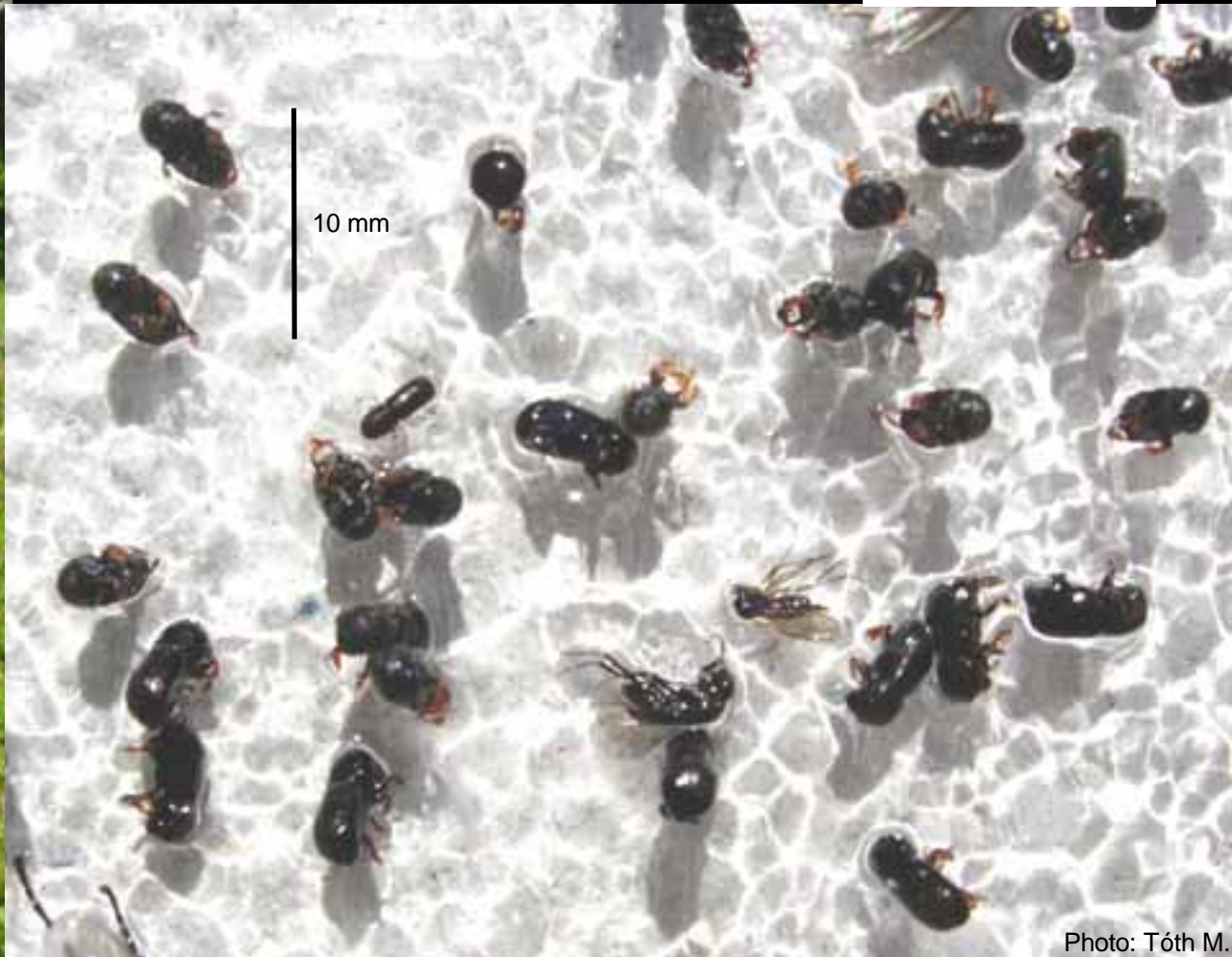


Photo: Tóth M.

So it looks when caught in the  
CSALOMON® PALX trap!