

Agrilus jewel beetles – *Agrilus* spp., including the emerald ash borer – *Agrilus planipennis*

A typical *Agrilus* beetle, which is captured in the trap (*A. planipennis*):



Elongated, in general mildly flat, cylindrically shaped uni-colour 4 - 14 mm long beetles [1]. Relatively often whitish hair spots cover both the apical and ventral parts of body. Double lateral carina lies on both sides of prothorax. In general a small longitudinal ridge (fold) is seen in the last corner of the pronotum. The small claws on the tarsi have a small tooth each, which is short and wide for females and relatively long and thin for males of most such species, appearing to be doubled claws.

Hostplants: The larvae live invariably in live plant tissue, namely in the outer or inner bark of trees or in wood and occasionally in the roots of perennial herbaceous plants. Each species typically has a narrower host range that includes one or at most some groups such as oak species, linden species, or ash species. Larvae always develop in living plant tissues, in the bark, phloem or xylem of trees or shrubs, and rarely in the roots of perennial herbaceous plants. **Damage:** Beetles feed on the foliage of the host plant, but the main damage is caused by larvae that destroy the vascular tissue, which are characterized by decaying branch portions and D-shaped exit holes.

CSALOMON® MULTz traps should be hung at canopy level. The usual time to start trapping is the end of May. Always place the trap to sunlit branches in the canopy. Choose the branches next to a road or an open area on the sunny side. Please use a curved metal wire mounted on a 5-7 meter pole (i.e. a carbon-fiber fishing stick) to reach branches at the height of 5-8 meters. Please see the Assembling instructions for the MULTz trap design for more details.

***A. planipennis* larval damage killed and eliminated green ash (*Fraxinus pennsylvanica*) trees in Western Russia (foto Z. Imrei, 2019)**



Adult leaf damage



Selectivity: the CSALOMON® MULTz trap catches mostly *Agrilus* jewel beetles, which are attracted to the trap by its light green (fluorescent yellow) colour even without any chemical baits. Please use bait developed for your target species only - if available. Please note that non-optimized plant volatile baits may reduce catches!

MULTz trap was developed for catching jewel beetles (Buprestidae), but it is especially suitable for catching *Agrilus* spp., including the ash related *A. planipennis* (emerald ashborer or EAB) and *A. convexicollis*, further several oak related buprestids (*A. obscuricollis*, *A. laticornis*, *A. graminis*, *A. angustulus*, *A. olivicolor*, *A. litura*, etc.).

Efficacy of the trap: In contrast to sticky designs, MULTz does not lose efficiency even when large numbers are caught. Catch efficiency can be significantly increased, when insects caught are killed in the catch container. The addition of a small portion of a slow release formulation of a high vapour pressure insecticide into the catch container is optimal, but spraying the inner surface of the catch container with a household insecticide might be sufficient. Instead of insecticides for alive catches the addition of host plant leaves is the best followed by regular inspections and renewal of the leaves (every second day).

Longevity: In the field a trap can be operated for over 1-3 flight periods (1-3 x for 4-6 weeks). The trap life could be prolonged if collected from the field when not in use and stored at a cool place, protected from sunlight.



[1] Muskovits, J., Hegyessy, G. (2002): *Jewel beetles of Hungary (Coleoptera: Buprestidae)*. Grafon Kiadó



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So it looks when caught in the CSALOMON® MULTz trap (*Agrilus spp.*)