

Anthocoris nemoralis – the natural enemy of the pear psylla

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This predatory bug is the most effective entomophagous agent of the pear psylla and accounts for 2/3 of all its entomophagous organisms.

One bug sucks daily 120 – 180 eggs, 80 – 110 larvae or 85 – 90 nymphs of the psylla, and one second-instar larva – respectively 20 – 48, 21 – 30 and 14 – 21. If no broad-spectrum insecticides are used in pear orchards, the bug can achieve complete biological control of the psylla.

The adult insect is dark brown, with a black head and pronotum. On the apical part of the hemelytra there are 3 whitish spots arranged in the form of an equilateral triangle. The antennae, except for the second segment, are black. The body is 3.2 – 4 mm long. The egg is slightly arched, with an operculum, 0.6 mm long and 0.25 mm

wide. The first-instar larva is orange-brown, and the third-instar larva is dark brown, with lighter wing pads.

In Bulgaria the species develops 5 complete and partially a 6th generation per year and overwinters as an adult insect under the bark of trees, under fallen leaves, in plant residues and in other sheltered places.

The overwintered adults emerge from diapause, leave their winter shelters and migrate along the bark of the trees at an air temperature of 10-12°C – usually towards the end of March and the beginning of April. They feed on winter eggs and young larvae of mites, aphids, psyllids and other arthropods.

The adults and larvae prefer eggs, young and mature larvae of the pear psylla. This determines their constant presence in high numbers in pear orchards.

The bugs lay their eggs singly in the parenchyma of pear leaves, rarely in groups of 3–5 eggs. One bug lays 80–120 eggs, depending on the generation. The egg stage lasts 2–7 days, and the larval stage – 10–32 days. The bugs live 50–56 days. The generations overlap and in August and September populations of several successive generations occur. During these months the density of the bug is highest.