Snailcase Bagworm

The snailcase bagworm is an unusual moth in the family Psychidae. It is a native to Europe that may have been somewhat recently been introduced into Arizona (an isolated population was identified near Prescott, AZ in June 2011). The insects have been in Colorado for several years and are expanding their range in that state. The developing insects feed on a wide variety of plants but rarely cause significant plant injury. Instead, problems occur as the full-grown larvae migrate to sites to pupate. During this time, large numbers may firmly attach themselves to sides of buildings, fences, mailboxes and other surfaces, creating a nuisance.

All stages of this insect take place within a coiled, snail-like case, approximately 1/8 inch in diameter. The caterpillars are greenish or reddish-gray with a black head. These are difficult to see because they stay inside the above-described case. Adults are wingless and nearly legless moths. Only females are known to occur in Colorado.

Snailcase bagworm damage on tomato (photo by: Whitney Cranshaw).

Snailcase bagworms survive winter as young caterpillars protected within the case of the mother insect. They become active in midspring and feed on the leaves of a wide variety of native and cultivated plants, including saltbush, rabbitbrush, willow, mountain-mahogany, various fruit trees, squash, tomato, wild mustards, and alfalfa. The feeding injuries appear as small areas progressively gouged out of the leaf surface. Serious plant injury is said to be rare.

As the larvae grow and develop, they produce a snail-like case of silk and soil particles. Later, they push their fecal matter out of an opening in the center of the case, allowing it to pile up on top of the insect. The larval insects are mobile and can carry the case upright. As they become full-grown, typically in late spring and early summer, snailcase bagworms migrate to high, shaded points. There they firmly attach themselves to an available surface and transform to the pupal stage.

Transition to the adult moth takes place in the pupal covering after attachment. As stated above, the moths are wingless, nearly legless, and do not feed. Only females are produced, but they can fertilize eggs asexually. About one to two dozen eggs are produced by the female. During midsummer, these eggs hatch. However, the young larvae remain in a dormant condition within the pupal covering throughout the winter. They emerge from the case the following spring and disperse, probably with the aid of wind, to new host plants.

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