

BLUEGRASS BILLBUG (Sphenophorus parvulus)

Prepared by: Dr. M. Keith Kennedy  
Extension Specialist  
Department of Entomology  
Michigan State University

The bluegrass billbug is a common turf pest which occasionally causes extensive damage to home lawns. These beetles are named because of their long snout or "bill" which ends in a set of small mandibles or jaws. They are usually seen in the spring (April-early May) or late fall (September-October) wandering about on sidewalks, drive ways, or patio's.

The presence of billbugs in the lawn is generally not detected until the first signs of damage appear. Often this damage is attributed to other causes. The following information should assist you in becoming more familiar with this turf pest.

Sphenophorus parvulus

Hosts Kentucky Bluegrass (Poa pratensis)

Characteristic Damage

spotty dead patches of turf scattered throughout the lawn in July and August.

How to Recognize

Adults - dull grey (lots of scales) to black or brown beetles,  $\frac{1}{4}$ - $\frac{1}{2}$ " long, with a snout or bill. Adults have wings but seldom fly.

Larvae - white, legless,  $\frac{5}{8}$ " long, humpbacked grubs with a yellow to brown head capsule.

Adult



$\frac{1}{4}$  inch

Larva



$\frac{1}{4}$  inch

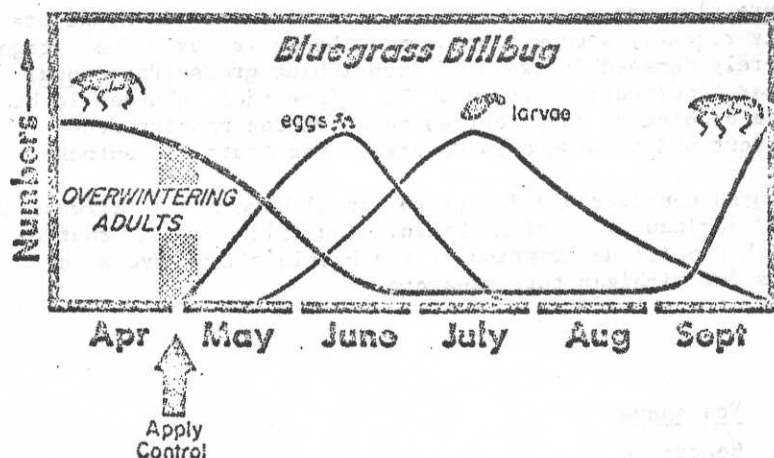
Damaging Stages

adults feed on grass blades or stems but the major damage is caused by larvae feeding in the stem and roots.

Life Cycle

Billbugs overwinter as adults and become active as temperatures begin to warm in April. Eggs are first laid in grass stems in early May but most eggs are deposited in early June. (See Fig. 1) Eggs hatch in two weeks and the larvae tunnel down through the grass stem into the crown and eventually settle in the roots.

Mature larvae may feed across the crown severing the roots. Larvae may be present the remainder of the summer but peak densities occur in early-mid July. Old adults (overwintered) may persist throughout the season but the new summer adults begin to emerge in late August and September. They generally seek out sheltered areas to spend the winter and can be observed walking around driveways, patio's, near ground cover, etc at this time. There is only one generation/year.



Life cycle of Bluegrass billbug. Arrow indicates best time to apply controls.

#### How to Diagnose Billbug Damage

Use the following set of characters to properly diagnose billbug injury.

- 1) Grass in dead areas of lawn will pull up easily and the stems will be hollow.
- 2) A white, legless, humpbacked larva may be present in or under the crown or in the soil up to 1 inch deep.
- 3) Brown sawdust-like frass will be present in the root zone.
- 4) Adults may be present in adjacent grass.

Economic Threshold - Damage to turf generally occurs when larval densities are 10/sq. ft. or higher.

#### Control Strategies

Adults: Sprays should be applied in late April or early May to control overwintering adults before they begin to lay eggs.

Larvae: Once larvae have tunneled into the grass stem, control is very difficult. Moreover, poor results are often obtained because the insecticide was not watered into the root zone sufficiently to contact the larvae. Proper dosage, application and irrigation will provide some larval control but efforts should be primarily directed at the adults in May.

#### Chemicals

Adults and larvae: Diazinon 4 lbs/gal EC at 4 oz/1000 sq. ft. or 5½ qts/acre. Baygon and Sevin are also registered but may not be as effective.