

Billbugs

Sphenophorus spp.

DESCRIPTION OF INSECT

Immature stage:

Soft-bodied, small white grubs

Slightly tapered abdomen with a brown head capsule.

Larvae have no legs, unlike true white grubs.

Range in size from 1.3mm – 10mm (0.05 - 0.4 inches)

Pupae are cream color at first and turn reddish brown before adult emergence.

Mature stage:

Typical weevil form with snout (i.e. bill), elbowed antennae, and elytra (hard wing covers).

10-15mm in length. Body is longer than it is wide.

Damaging stage(s):

larvae (grubs)

Predictive models (degree day, plant phenology, threat temperatures, other)

Grubs generally become active at threat temperatures of 60° F or higher. [Threat temperatures](#) can be used to trigger preventive treatments. See the article, "[Threat temperatures](#)" for more information.

Life cycle:

30 - 60 days from egg to adult (dependent on species and location)

Females lay eggs into holes in the stems of grass where they had been feeding.

Eggs hatch in 6 -10 days

Larvae live for 30 – 50 days

Young larvae feed up and down the stem of the grass.

Older larvae can tunnel into the crown of the plant to feed and kill it.

Larvae pupate in the soil near the surface and emerge in 8-10 days.

Conducive environmental conditions:

temperatures above 65F (18C)

Geographic distribution:

North America



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DAMAGE CAUSED:

Plants attacked:

Common name	Host plants
Bluegrass billbug <i>Sphenophorus parvulus</i>	Bluegrass, rye, fescue, bentgrass (occasionally) zoysia
Hunting billbug <i>S. venatus vestitus</i>	Zoysia & hybrid Bermuda. Occasionally on bahia, centipede & St. Augustinegrass
Phoenician billbug <i>S. phoeniciensis</i>	Bermuda, zoysia and kikuyugrass
Denver billbug <i>S. cicatristriatus</i>	Cool-season turf, esp. bluegrass and ryegrass

Symptoms of damage:

Stems turn straw color as they die.

Small patches of dead grass that resemble dollar spot.

Larger patches of dead grass that can be mis-diagnosed as white grub damage, late green up, drought damage.

Tufts of grass will easily lift from the rest of the sod mat.

Timing of damage:

Most symptoms of damage appear in late June and July or when the grass begins stress from the summer heat.

Insects that look similar; Pests that cause similar damage:

White grub larvae maybe mistaken for billbugs. The key difference is the presence of legs on white grubs while they are absent from billbug larvae.

Billbug damage can be mistaken for white grub damage and/or dollar spot damage.

Slow green up or winter kill in warm season grass also looks similar to billbug damage.

MONITORING TECHNIQUES:

[Soap flushes](#) for adults. Begin weekly soap flushes in the springtime, once average air temperatures exceed 65F (18C).

Adults are very active and can be seen walking across sidewalks and cart paths in the spring once temperatures warm up.

THRESHOLDS:

There are no thresholds for this pest.

Turf can tolerate very high numbers with out any obvious signs of damage, so it is usually best to wait until early signs of damage are observed.

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Investigation of the stem and crown of the grass will then be needed to detect the larvae.

BILLBUG MANAGEMENT STRATEGIES:

TYPE	TIMING/ THRESHOLD	PRACTICE
Cultural	N/A	If infestations are light, and/or if damage is minimal, turf can sometimes “grow out” of the damage, especially if the turf is nursed with more frequent irrigation and light fertilizer applications Use endophyte enhanced seed, if available
Biological	N/A	
Chemical	<ul style="list-style-type: none">• Follow resistance management guidelines by rotating products as outlined in “Insecticide Mode of Action Classification Scheme”• Consult North Carolina State “Pest control for Professional Turfgrass Managers for pest control options• Always consult the most recent version of all product labels before use.	