

Hunting Billbugs

By Dr. David Shetlar



The white areas of bermudagrass on this croquet field are classic spring hunting billbug damage.



This is a close-up of bermudagrass killed by overwintering hunting billbug larvae. Looks like spring deadspot!



Typical adult hunting billbug showing the (Y) markings on the pronotum.

Turfgrass entomologists often state that the bluegrass billbug is one of the most commonly misdiagnosed insect pests of cool-season turf, but managers of bermudagrass and zoysiagrass facilities have their own species to contend with – the hunting billbug.

The problem with billbug damage diagnosis is that the damage is often minor (especially in moist conditions and under higher fertility rates), the damage often resembles other maladies (e.g., disease, drought stress), and the small grub-like larvae are easy to miss. Hunting billbug damage can appear during the early green-up phase when it is often mistaken for delayed spring green-up or spring deadspot. While there are diseases associated with these syndromes, billbugs may be the actual cause of these dead areas or poor growing turf! In August through winter dormancy, the bermudagrass or zoysia may appear to be attacked by white grubs (i.e., wilts in the afternoon, is frequented by birds, patches pull back easily because of a poor root system).

We need to know a lot more about the hunting billbug biology and several southern turfgrass entomologists are beginning these studies. At present, it appears that the adults of this pest lay eggs in the turf over a very long period, from May through August. Their C-shaped, grub-like larvae **WITHOUT** legs feed on stolons, rhizomes, and roots. During the summer, watered bermudagrass and zoysiagrass can generally grow through this feeding damage. The real problem with hunting billbug can be when there are numerous larvae still finishing development when their warm-season hosts enter winter dormancy. The larvae continue to dine on the stolons and roots that results in the dead spots observed the following spring or the poor spring recovery. Hunting billbugs can overwinter as adults or larvae, but it is overwintering larvae that can cause the most problems, especially when masked by winter overseeding.

You should always be on the lookout for billbugs. The adults tend to wander about on warm sunny afternoons, especially in the fall and spring months. Hunting billbug adults are about 3/8-inch long and they have a diagnostic raised Y-area on the pronotum (the segment just behind the head) bordered on each side by a raised “()” marks, e.g., (Y).

Presently most turf managers knock out billbugs with their grub control treatments, especially if the grub controls are applied in June or July. If billbugs are causing spring damage, inspect the soil-thatch interface in several areas in August to determine if you have any grubs that have survived. If so, you likely still have time to apply a product containing imidacloprid (Merit) or clothianidin (Arena) to knock out these larvae that are likely to damage the turf during dormancy.

Dr. Shetlar is an urban landscape entomologist at Ohio State and is affectionately known as “The Bug Doctor.” ■