

Annual Bluegrass Weevil: Is There Need For Concern

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Despite no known reports of the annual bluegrass weevil (ABW), *Listronotus maculicollis*, in Wisconsin, ABW is likely one of the most problematic insect pests of golf courses in the northeastern United States. Formerly referred to as the Hyperodes weevil, ABW was originally identified as a serious insect pest of highly maintained annual bluegrass (*Poa annua*) in the metropolitan New York region. Annual bluegrass is its primary host, however ABW has also been reported to lay eggs on, feed and damage creeping bentgrass and perennial ryegrass (*Lolium perenne*). ABW is now damaging turf in all of the Northeastern states as far south as Virginia, as far west as northeastern Ohio and as far north as southern Ontario and Quebec provinces in Canada. Most recently, damaging populations of ABW were reported in the mountains of North Carolina.

ABW adults spend the winter in protected sites near fairways, putting greens and tees. In the spring as early as late March, typically when Forsythia is in mid- to full bloom, ABW adults will move to shorter-cut turf including fairways, putting greens, tee


boxes and surrounds from adjacent overwintering sites. Adult female ABW will begin laying eggs in the inside of leaf sheaths of individual grass plants from mid-April through May. The tiny legless larvae hatch after about a week and spend five larval stages feeding and growing. Smaller (younger) larvae feed inside the leaf sheath, and larger larvae migrate (chew their way down) the plant downward to feed on the crown, feeding damage from larger larvae becomes very apparent. The larvae pupate in the soil for about a week before emerging as adults in June and July, and this cycle is repeated for a second (summer) generation. Larvae typically develop more quickly in the summer compared to the spring. This is one of the reasons that it is so difficult to track the development of ABW populations in the summer months because of the overlap between insect stag-



Weevil damage next to a green site.
(Photo: H.D. Niemczyk, The Ohio State University)

es. Thus, it is not uncommon to find small larvae, medium larvae, large larvae, pupae and adults all in the summer.

Monitoring for ABW is not complicated, but is very important for making appropriate management decisions. Adults can be readily observed moving on the surface of putting greens, collars, tee boxes and fairways on sunny days throughout the summer. ABW adults can also be easily brought to the turf surface by using a soap disclosing solution (one or two tablespoons of lemon-scented dishwashing detergent in two gallons of water). Larvae and pupae can be easily sampled by cutting a wedge in the turf or pulling a core out of the turf, ABW larvae look similar to grains of rice with a brown head, and pupae are all white with a diamond shape.

Even though ABW has not been reported in Wisconsin to date, the potential for ABW to become a golf course pest in Wisconsin is likely based on the state's similar climate and grass type to that of its eastern counterparts. Currently, the most westward geographic distribution of ABW is northeastern Ohio. For now, it is out-of-site, out-of-mind, but turfgrass managers in Wisconsin should at a minimum be aware and on the look-out of this important and destructive turfgrass insect pest. 



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