

Sphenoptera jugoslavica

Bronze Knapweed Root-borer

Weed(s) Attacked: Diffuse Knapweed (preferred), and Spotted Knapweed
SCNWCB February 2006

GENEALOGY

Original source for U.S. release was Greece. First U.S. releases were made in 1980. Now established in California, Idaho, Montana, Oregon, and Washington. First documented release in Stevens County was in 1986.

LIFE CYCLE

The larvae overwinter in the root. The whitish larva are distinctive in that their head is noticeably wider than the rest of their body. Pupation into an adult occurs inside the root in late May and June. The peak adult emergence coincides with flowering, usually in July. Adults are somewhat flat, metallic bronze in color, and about 10 mm long. Females need 5 hot days (86 degrees Fahrenheit or more) before they lay eggs. The flat white eggs are placed between tightly packed rosette leaves in July and August. When the eggs hatch the larvae tunnel into the plant and down into the roots. Usually only one larva develops per root. The larval activity causes a rather large swollen gall on the root. Dry soil conditions favor larval survival.

EFFECT

Larva damage the plant by tunneling within the roots. Surviving plants are stunted and produce fewer flowers. Adults do a lesser degree of damage by feeding on leaves.

REDISTRIBUTION

Use a sweep net or deep sided plastic dish pan to collect adults in July-August an hour or so before dusk.

Comments

The population of this agent remains low in Stevens County. The reason may be predation of the larva. Outside of Stevens county there are sites where the collapse of knapweed population is attributed to this agent. Sites that are dry, and have some bare ground between plants spaced one to two feet apart are said to favor establishment. Though an excellent agent where established this agent appears to play a minor role in Stevens County.

