

Colorado Insect of Interest

Tenlined June Beetle

Scientific Name: *Polyphylla decemlineata* (Say)

Order: Coleoptera (Beetles)

Family: Scarabaeidae (Scarabs, chafers, May/June beetles, dung beetles)



Figure 1. Tenlined June beetle (*Polyphylla decemlineata*) male.

Identification and Descriptive Features: The adult tenlined June beetle (Figure 1) and the related *Polyphylla* species are the largest scarab beetles in Colorado, ranging from 22-30 mm in length.

Larvae (Figure 3) are a type of white grub and occur in soil. Compared to other large root feeding white grubs, notably those of the various *Phyllophaga* species (May/June beetles), they tend to be more tightly curled and stiffer bodied. When full grown they may have the circumference of a 50-cent piece.

Distribution in Colorado: The tenlined June beetle is widely distributed in the state. It is most commonly found east of the Rockies, including the San Luis Valley. It tends to be more common where soils are lighter and sandier.



Figure 2. Tenlined June beetle male showing antennae. The antennae may open and spread in a fan-like manner.

Life History and Habits: Adults of this largest Colorado “June bug” usually fly from late June through early August. Males, which have large antennae (Figure 2), are strongly attracted to lights; females, which have substantially smaller antennae, rarely visit lights. Adults of both sexes feed on foliage of various trees and shrubs, but feeding injuries are rarely noticeable.

Eggs are laid in soil and larvae of the tenlined June beetle feed on plant roots. They have a wide host range and are known to chew on grasses, perennials, trees and shrubs. (On rare occasion they can cause significant damage to roots of woody plants, with

pinus being most often injured.) In fall, grubs preparing to overwinter move deeply into the soil, returning near the soil surface with returning warm soil temperatures in spring. In the spring of the third season after eggs are laid pupation is completed and the adults emerge.

Although the tenlined June beetle causes little plant injury it is an impressively large, well-marked insect that commonly attracts interest. Furthermore, adults when disturbed can produce an impressive defensive display, hissing loudly by forcefully expelling air from their spiracles. This may also be accompanied by male beetles spreading and fanning out their large clubbed antennae. However, the insects are harmless.



Figure 3. Full grown larva of the tenlined June beetle.

Related Species: Two other large June beetles of similar size and appearance occur in Colorado (Figure 4). *Polyphylla diffracta* Casey has obviously lined wing covers but the striping is

somewhat more diffuse and markings are less consistently distinct than those of the tenlined June beetle. It is the most common *Polyphylla* species found on the West Slope and also occurs in extreme southeastern Colorado (Baca County). *Polyphylla hammondi* LeConte occurs primarily in eastern and, particularly, southeastern Colorado. However, it is also known from Moffat County. It tends to have more brownish coloration and fainter striping than the tenlined June beetle.



Figure 4. The three *Polyphylla* spp. present in Colorado: Left, *P. decemlineata*; center, *P. diffracta*; right, *P. hammondi*. All are males except *P. decemlineata* female in lower left.