Walkingsticks of Colorado

Scientific Names: Diapheromera velii velii Walsh (Prairie walkingstick), Diapheromera femorata (Say) (Walkingstick), Pseudosermyle straminea (Scudder) (Gray walkingstick), Parabacillus coloradus (Scudder) (Colorado walkingstick)

Order: Phasmatodea **Family:** Heteronemiidae

Identification and Descriptive Features:

All four species of stick insects that occur in Colorado are extremely thin-bodied and lack wings. The thorax is quite extended and may comprise over a third of the body, with long thin legs. Size of adults range from about 40 mm (male gray walkingstick) to 85 mm (female prairie walkingstick) with males of most species being substantially smaller



Figure 1. Female (green) and male (brown) prairie walkingstick.

than the females. Color differences also occur between sexes in the prairie walkingstick with the larger, heavier bodied female being green and the smaller, thinner male a brown color. The antennae are only indistinctly segmented and threadlike in all species, although the antennae are relatively short in the Colorado walkingstick.

Distribution in Colorado: All four species of walkingsticks recorded from Colorado are known to occur in eastern Colorado. Most are associated with grasslands and shrublands, although the walkingstick (*Diapheromera femorata*), known only from Yuma County, is a forest species. Two species, the gray walkingstick and Colorado walkingstick, also occur in areas of the West Slope.

Distribution of walkingsticks may be very localized. This is particularly true with the prairie walkingstick that often drops its eggs in dry creek washes, where they may be carried with water following heavy rainfall events. The eggs may then concentrate in pockets where the water flow slows.



Figure 2. Colorado walkingstick (Parabacillus coloradus).

Life History and Habits: All walkingsticks are herbivores that chew and feed on leaves of plants. Their extremely slow movements and appearance that readily blends with surroundings afford protection. Furthermore, walkingsticks can produce distasteful chemicals from glands to deter predators.

The prairie walkingstick found in northeastern Colorado has a life history likely to be typical for the Colorado species of walkingsticks. Winter is spent in the egg stage with eggs hatching in late spring. The young walkingsticks feed on various shrubby plants and grasses with the prairie grass big bluestem

(*Andropogon* species) reported as the primary food plant. Almost all feeding occurs at night after dark.

The young walkingsticks are green, but males turn darker as they get older. Development is rapid and adults can be found by late June and early July when they mate. As the female feeds, she periodically drops single eggs on the ground. Feeding and egg production may continue until a killing frost.



Figure 3 Mating pair of the walkingstick, *Diapheromera* femorata. Photograph courtesy Ken Douce/IPM Images.