

Colorado Insect of Interest

Apple Flea Beetle

Scientific Name: *Altica foliaceae* LeConte

Order: Coleoptera (Beetles)

Family: Chrysomelidae (Leaf Beetles)

Identification and Descriptive Features: Adults are shiny green or blue-green beetles that jump readily when disturbed. Although moderately small (4-5 mm) compared to other beetles, they are larger than most common flea beetles that occur in Colorado.

Distribution in Colorado: Statewide. Sometimes very abundant.

Life History and Habits: Winter is spent in the adult stage, sheltered under leaves or in other protected sites. They resume activity in spring and seek out evening primrose (*Oenothera* spp.). On these plants the females lay pale orange eggs in small masses on the leaves. The black, grub-like larvae chew deep grooves on the under surface of leaves, causing heavily infested plants to have a lacy appearance. When full-grown they crawl to the soil and pupate, emerging as adult-form beetles a couple of weeks later.

Adults are strong fliers and disperse widely. Adult feeding can occur on a very wide range of plants and is in the form of small holes or notches in leaves. In addition to evening primrose they may injure such plants as *Zauschneria garretti* (hummingbird trumpet), *Epilobium fleischeri* (alpine willowherb), evening primrose, *Gaura* (whirling butterfly), alfalfa, yellow flax, crabapple, grape, wild rose, *Ribes aureum*, *Prunus besseyi*, and coyote willow. During outbreaks large numbers of beetles may suddenly appear on plants and can cause some serious defoliation.

It is unclear if a second generation is produced. A few larvae are observed on evening primrose into midsummer. However, most adults appear only to feed during the summer and later go into



Figure 2. Apple flea beetle larvae feeding on evening primrose (*Oenothera*).

an overwintering dormant condition, suspending reproduction until the next season.

Related Species: Three are at least 15 additional species of *Altica* recorded from Colorado and most of these are very similar in appearance, requiring expert skills in identification. In addition there are several shiny green leaf beetles in Colorado that are sometimes locally common and approximate apple flea beetle in size. Among these are *Brachypnoea tristis* Olivier, associated with willow, and *Gastrophysa cyanea* Melsheimer, associated with *Rumex* (dock)

Table 1. A checklist of *Altica* species recorded from Colorado.

Altica aeruginosa LeConte
Altica ambiens ambiens LeConte **Alder flea beetle**
Altica bimarginata bimarginata Say
Altica bimarginata plicipennis Mannerheim
Altica brisleyi Gentner
Altica carduorum (Guerin-Meneville)
Altica caurina Blake
Altica chalybea Illiger **Grape flea beetle**
Altica foliaceae LeConte
Altica lazulina LeConte
Altica ovulata Fall
Altica prasina prasina LeConte
Altica subcostata LeSage
Altica subplicata LeConte
Altica tombacina Mannerheim
Altica vialis Fall
Altica vicaria Horn

Source: Riley, E.G., S.M. Clark, T.N. Seino. 2003. *Catalog of Leaf Beetles of America North of Mexico*. The Coleopterist's Society. Sacramento, CA.



Figure 3. Apple flea beetle damage to (top to bottom): crabapple, grape, evening primrose.