

Colorado Insect of Interest

Linden Looper

Scientific Name: *Erranis tilaria* (Harris)

Order: Lepidoptera (Butterflies, Moths, Skippers)

Family: Geometridae (Geometers, Inchworms)

Identification and Descriptive Features:

The caterpillars are “inchworms” with an extremely elongated body and only two hind pairs of prolegs used for walking. The bottom side of the abdomen is yellow, the topside streaked with black, blue and yellow linear lines. The head capsule is brown.

Males are brown moths with a wing span of about 40-45 mm. Females are wingless, generally gray with black mottling.

Distribution in Colorado: Probably widely distributed through the forested areas of the state and also known to occur along the Front Range. Several large-scale outbreaks have been recorded from Colorado involving Gambel oak, chokecherry, and serviceberry. Aspen and narrow-leaf cottonwood are also occasionally attacked, Western Colorado outbreaks in the mid-2000’s were spread over thousands of acres and lasted three or four years.

Life History and Habits: Adult moths emerge in early fall and may be present from late September through October. The winged males fly and mate during the evening. Females are wingless and crawl up the plants where they mate and later lay eggs. The eggs are laid as small masses in bark cracks and other protected areas on the trunk and branches.



Figure 1. Linden looper larva. Photograph by Bob Hammon.



Figures 2, 3. Adult male (top) and female (bottom) linden looper. (Photography credits Bob Hammon)



Figure 4. Damage by linden looper to Gambel oak.
Photographs by Bob Hammon.



Figure 5. Linden looper eggs under bark flap.
Photograph by Dennis Jones.

Eggs hatch the following spring, shortly after bud break of their host plants and the caterpillars feed on the emerging leaves. Injuries produced by small larvae appear as small pinholes in the leaves but older larvae feed more generally and may entirely consume leaves during outbreaks. Considerable amounts of silk are associated with the larvae which may use it for local wind-blown dispersal. When disturbed the caterpillars also will readily drop from plants on silk strands. Full-grown larvae also drop from the plants and move into the leaf litter to pupate. The pupae remain dormant through summer and adults emerge after frosts. A single generation is produced annually.

Related Species: At least two other species of inchworms may occasionally defoliate forest trees in Colorado during spring. The **fall cankerworm**, *Alsophila pometaria* (Harris), is most often associated with boxelder. Caterpillars are highly variable in color, ranging from green to nearly black, and can be distinguished by a tiny 3rd pair of prolegs on the 5th abdominal segment. The **oak looper**, *Lambdina punctata* (Hulst), has sometimes been associated with outbreaks in Gambel oak stands.