

*Circotettix verruculatus* (Kirby) Sauss. This insect stridulates at will during flight, and is the noisiest of our eastern Acridians. At each turn in its flight, it accompanies the movement with a swoop-like curve, and emits a crackling sound. The sound is like



Fig. 54.—Note of *Circotettix verruculatus*.

*kl* or *kla* (the *a* having the sound of a in fat), the former at a distance, the latter nearer by; it is repeated at the rate of about five per second; just before alighting, it crackles more rapidly and frequently.

*Circotettix carlingianus* (Thom.). This Acridian is the noisiest of the family known to me. I have had my attention drawn to it by its obstreperous crackle more than a quarter of a mile away. In the arid parts of the west, it has a great fondness for rocky hill sides and the hot vicinity of abrupt cliffs in the full exposure to the sun where its clattering rattle is re-echoed from the walls. Its noise is like that of the preceding species vastly intensified,—a bold and defiant challenge to the collector, who will find him nimbler and warier than he cares for on a hot day.

*Circotettix lapidicolus* Brun. This is another of the noisy tribe, according to Bruner, who says that "during the hottest, brightest hours of noonday" it "is to be seen and heard in the air, producing its clattering music, which is anything but soothing."

*Circotettix maculatus* Scudd. This species is a remarkable contrast to the others of the genus. It is much the smallest form and is far from noisy. The sound it makes is similar to that of the other species but very much subdued, so as greatly to surprise me when I first captured it at Truckee, California. I could not at first believe it to be that of a *Circotettix*.

I have notes of the stridulation of several other western Acridians, but the species are not yet definitely determined and therefore not mentioned here.

## AN INSECT DESTRUCTIVE TO SQUASH VINES.

BY SAMUEL H. SCUDDER.

During the month of August the leaves of our squash-vines often present a riddled appearance, disclosing the presence of an enemy. If we examine the edges of the holes we shall find the plump, rounded larva of a beetle feeding sometimes on the upper though generally upon the under surface of the leaf. It belongs to the family of *Coccinellidae* or lady-bugs; and although, as a general rule, the species of this group are of positive benefit to vegetation in destroying large numbers of plant-lice which blight our fruit and shade trees, a few are herbivorous in nature, and among them the insects of which we are speaking. In the larval state, during which they inflict almost all the injuries of which they are capable, they are of a bright yellow color, covered above with long, branching black thorns, sometimes tipped with white, and arranged in six longitudinal rows. The space between the two middle rows is widened anteriorly by the more lateral insertion of the three first spines. Behind the thorns of the first segment, there is a transverse row

of short, fine, are covered w larvae are abou breadth. The and live in la rapidly with white, transpa measure the s

Toward grown, and b place, general terminal segm

The pup stumpy feet c head, thorax tion of the pe both edges of tips. There uniting as the dots. The ed meeting in th segments hav and fifth segn long, fleshy p still conceals markings whi black dashes Out of a larg any of these Cod.

No simil the different length by on few days in t possessed of on the plant have still a re

In the p though the sh five in numbe central region wings. In tl round black s border; and middle of the end of the ju The whole bo to the naked

This beet but is now pl evident indica There can be this simple, r put into prac it will be adv of Paris greer