

NOTES ON CHALEPUS RUBRA WEB., IN NEW JERSEY.

BY ALAN S. NICOLAY AND HARRY B. WEISS,* NEW BRUNSWICK, N. J.

This species occurs throughout New Jersey, and according to Smith's List is common during May, June and September on locust and sometimes on basswood. Blatchley in his "Coleoptera of Indiana" states that it occurs on locust, oak, soft maple and basswood. Neither of these publications mentions the leaf mining habits of the larva. Chittenden, in his paper on "The Leaf-Mining Locust Beetle with Notes on Related Species," (Bull. 38, N. Ser., U. S. Div. Ent.) states that Harris discovered the larva in 1827 mining the foliage of white oak (Harris, Bost. Jour. Nat. Hist., vol. I, pp. 141-151, 1835) and further records it from New York during June and as late as September.

According to Beutenmuller, it mines the leaves of apple and linden, and the adult is recorded as occurring on white birch, hornbeam, cherry, Juneberry and *Pyrus arbutifolia*. Harris in his "Insects Injurious to Vegetation" lays stress on its importance as an apple pest and mentions chokecherry and shadbush as additional food plants. Chittenden (loc. cit.) states that its life-history appears to be similar to that of the locust beetle *C. dorsalis* Thunb., and records from published statements that the beetles appear during the last of May and deposit eggs on the host leaves in which the larvæ mine. The eggs are described as small, round and of a blackish colour, being fastened to the surface of the leaf either singly or in groups of four or five.

In New Jersey we have found the mines not uncommon on the leaves of various species of oaks, each one usually being at the edge of a leaf. The larva eats all of the parenchyma in its mine resulting in the mine being visible on both leaf surfaces. It shows plainest, however, on the upper surface as a white elongate irregular discoloration. During the last half of June and first half of July the larvæ can be readily found within their mines. We have never found more than one larva in a mine. The pupal stage requires about two weeks and occurs the last week in July and first part of August, the beetles emerging during the second week of August and later. After emerging from the pupa case the beetles are light yellowish red, without distinct markings.

*The arrangement of the authors' names is alphabetical.
December, 1918