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THE CRANBERRY ROOTWORM BEETLE (RHABDOPTERUS PICIPES) AS AN APPLE PEST. (COLEOPTERA).

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On June 28, 1920 the writer's attention was called to a peculiar injury to apples in an orchard near Sodus, New York. Small, bronze-coloured leaf beetles were found in great numbers feeding on the fruit. They were later determined by Mr. Charles W. Leng as *Rhabdopterus picipes* Oliv. This beetle is widely distributed throughout the eastern United States, ranging westward to the Dakotas and Texas. The beetles have been recorded as feeding on the leaves of basswood, myrtle, wild grape, and on the foliage and fruit of the cranberry. In the larval stage the insect is a serious enemy of cranberry, attacking the roots.

In the orchard at Sodus the beetles confined their attack to the fruit, especially Grimes Golden, eating out a shallow, irregular, hieroglyphic-like channel on the surface (Plate VIII). About 75 per cent. of the apples were injured in this manner. The beetles continued feeding until about the middle of July, after which time they were to be found feeding on the foliage of Virginia creeper, dock, and wild strawberry. Apple leaves were not attacked. When feeding on the foliage the beetles ate out holes through the leaf, shaped very similar to the channels on the fruit (Plate VIII); in some cases riddling the leaves so that only the veins remained. About the first of August the beetles disappeared.

During the past season, the work of the insect seemed to be confined to the vicinity of Sodus and Savannah, New York. In the latter place it was most abundant on the foliage of wild strawberry and dock. The damage to the apples in this locality was not great.

Attempts to kill the beetles by spraying with arsenate of lead were unsuccessful. Arsenate of lead (powdered) five pounds in one hundred gallons of summer strength lime sulphur was applied with great thoroughness, without either killing the beetles or driving them away.