

NOTES ON THE LARCH CASE BEARER (*COLEOPHORA LARICELLA* HBN.).

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During the present season (1919) the Larch Case Bearer has made its appearance in Northampton, Mass., apparently at the same place where it appeared in 1886, as recorded by Hagen (*Can. Ent.*, XVIII, 125). A number of good-sized larches have been injured, the outer half of the leaf being thoroughly mined, causing the trees to look quite badly. By the middle of June all work was at an end and no moths could be found, and it is probable that at this time the insect was in the pupa stage.

On July 18th another examination was made, and eggs and newly-hatched larvæ were found in abundance. The egg is rather dome-shaped, its diameter at the base being about .3 mm., and its height the same or slightly less. It is of a grayish or brownish colour, apparently determined by the age of the embryo within, the more advanced eggs being darker. The centre of the top is irregularly roughened and about a dozen ridges diverge from this area toward the margin of the egg, the exact number of ridges varying somewhat in different examples. The surface between the ridges is minutely roughened, resembling the surface of an orange. The egg may be placed on either side of the leaf, but most frequently upon the upper one, and somewhere on its outer half.

The larva on hatching appears to enter the leaf, and forms its mine along one edge, working sometimes toward the tip, sometimes in the other direction. At this time no trace of a thoracic shield could be found in any of the specimens examined, though quite high power lenses of a compound microscope were used, nor were any prolegs or spines on the body visible, except two or three of the latter on the head and prothorax, so small as to be extremely difficult to locate. The general colour of the larva was brown, but under the microscope appeared mottled with dark reddish. Unfortunately, it was not possible to carry the observations farther.