

The following description of the adult has been prepared by Mr. Arthur Gibson, Chief Assistant Entomologist:—

Palpi cream coloured, irrorated with brown, darkened at tips. Antennae head and thorax brown, abdomen paler of a creamy brown colour. Forewings: outer two-thirds whitish partly suffused with grey and irrorated more or less with brown, particularly along the costa. Towards the centre of each wing, there is a conspicuous velvety black, rather triangular-shaped, dorsal spot, crossed by two or three bars of the surrounding colour of the wing. The markings on the outer portion of the wing, from the tip of the dorsal spot to the apical area are as follows: about midway there is a series of elongate, velvety black dashes, three or four in number, those nearest the apex being the longest; between these spots and the dorsal spot is a conspicuous metallic gray band and between the same spots and the margin is a similar metallic band not so conspicuous. Apical area dark brown, margin dark brown, close to which are spots of the same colour. Cilia brown, darker at tips. Basal third of wing dark brown. Hind wings brown. Under a lens the tips of the scales are seen to be darker brown.

Wings beneath brown, the primaries with whitish costal spots. Body beneath pale creamy-brown. Legs brown, outside irrorated with cream and crossed by bands of the same colour; pale cream inside.

Alar expanse 13.5 to 15.5 mm.

THE OBLIQUE-BANDED LEAF-ROLLER.

Cacoecia rosaceana Harris.

LIFE-HISTORY AND HABITS.

Although a leaf-roller by name, this insect in Nova Scotia is just as truly a bud-moth as any of the other species discussed in this bulletin. It is responsible for two distinct types of injury which are apparent at different seasons of the year. The most destructive type of injury although perhaps not the most evident, is seen in the spring when the larvæ have just emerged from their winter quarters and are feeding on the blossom buds. The second type of injury becomes apparent in the late summer, after the eggs have been laid and when the young larvæ start feeding on the under-leaf surfaces.

This insect winters over in the larval state in typical bud-moth hibernacula, skillfully concealed under minute bark flakes or more often under dead bud scales. In some cases the larvæ are found hiding in cracks or crevices in the bark, surrounded and covered by a delicate silken covering. The nest is constructed of fine, soft, whitish threads closely woven together to form a structure, very similar to that formed by *E. ocellana*, yet distinctive in not having the exuvia of the previous moult woven into the nest, as is characteristic in the case of the eye-spotted bud-moth.

With the coming of warm weather, the small caterpillars become active, and when the buds start to unfold they leave their snug nests and commence to feed on bud tips. At first they attack only the external exposed portions, but they eat their way into the centre of the buds where they feast on the tender unopening flowers, destroying a large percentage and greatly reducing the set of fruit. Here the larvæ feed, tunnelling through the dormant blossoms until the buds have fully burst, when they attack the expanding leaves.

When not actually feeding, the larvæ rest in shelters formed by rolling over, and tying down the edges of the leaves with fine silken threads; which habit gives to them the name of leaf-rollers. Until the middle of June the caterpillars can be found on the foliage, in the majority of cases in distinct shelters, but occasionally wandering freely over the leaves. In this particular the species differs from the eye-spotted bud-moth which is always found concealed in its leafy nest. If disturbed when feeding, the larvæ usually drop very quickly from the leaves, moving backward with quick