

As the collector proceeds along his hot and dusty way he suddenly comes upon one of the dazzling white coral roads. Following this for a short distance a large iron hydrant comes into view, and soon refreshing water is to be had. These hydrants, similar in size and shape to the fire hydrants in our cities, are found along the main highways at intervals of from a mile to two miles, and are practically the only means the natives have of obtaining water which is stored in reservoirs far inland and piped to all portions of the island, except the rough Scotland district. Quite a different situation prevails in Antigua, where practically all the drinking water is collected in great catch basins and the natives in the rural districts must carry it to their homes, sometimes a considerable distance away.

(To be continued.)

THE IMMATURE STAGES OF THE GOLDENROD LEAF-BUG,
STRONGYLOCORIS STYGICA SAY (MIRIDÆ, HETEROP).

BY MORTIMER D. LEONARD, ITHACA, N.Y.

During the latter part of May and the first of June, in the vicinity of Honeoye Falls, N.Y., the nymphs of a black leaf-bug are found in great abundance in patches of goldenrod, where they subsist on the leaves of this plant. Little is known concerning the life-history or the seasonal history of this insect. In 1916 on June 5, nymphs of all stages were found in a large patch of goldenrod. Those of the second stage, however, predominated, and only a few individuals in the fourth and fifth stages were present. Second and third stage nymphs were noticed as early as June 1, feeding on the tender leaves of the terminal shoots. By July 5, fifth stage nymphs predominated.

Following is a description of the several stages which the insect passes through in the course of its development. To Mr. H. H. Knight I am indebted for the determination of the species. The drawings were made from living material by the writer.

Egg (Fig. 1). The eggs of this species have not been found, but they are undoubtedly inserted into the more succulent portions of the goldenrod stems during late June and July, where they remain over winter and hatch the following May. On June 25, 1915, females, apparently swollen with eggs, were common. On opening the abdomen of some of these eggs, which were undoubtedly mature, were found. The description of such an egg is as follows: length 1 mm.; greatest width .27 mm.; pale yellowish or translucent, shining, cylindrical and slightly curved; somewhat compressed, and with a prominent cap which is narrowly elliptical when viewed from the top.

Stage I (Fig. 2). Length .93-.97 mm.; width of head including eyes .33 mm. General colour yellowish; head and thorax slightly tinged with orange or pale brownish; each of the thoracic segments with a pair of darker spots. These spots are usually faint, but vary somewhat in intensity with the individual and as to whether it is newly hatched or nearly ready to molt. Eyes reddish. Antennæ tinged with dusky; tip of first three segments often somewhat paler. Tarsi tinged with dusky. Caudal border of meso- and metathorax slightly curved backward.

Stage II (Fig. 3). Length 1.3 mm., greatest width (across abdomen) .6 mm. Head and prothorax blackish; the hind angles of the mesothorax and