

thought that the *C. emasculator* would prove an exclusive parasite of squirrels and that this is indicated by its smaller size.

—Mr. Barber exhibited specimens of the eggs of *Cicada lyricen* and presented the following notes for publication:

EGGS OF CICADA LYRICEN DEGEER.

BY HERBERT S. BARBER.

The egg-laying habits of the periodical cicada are so well known to everyone that we are too apt to consider its injury as typical of the cicadas. Newell (U. S. Dept. Agr., Bur. Ent. Bull. 60. pp. 52–58) has, however, described the oviposition of a second species, *Cicada erratica* Osb., in the South, but beyond this it seems that nothing on the subject is known of our more common species.

The reference by Smith and Grossbeck (Ent. News, April, 1907, p. 118) to DeGeer's "egg-laying habit of the adult"

of his *Cicada lyricen* seems unfortunate in that the eggs he mentions must belong to some other insect. From DeGeer's account (Mem. Hist. d. Insects, vol. 3, 1773, p. 215) one finds that his specimens consisted of adults and pupal skins sent him by M. le Prevots Acrelius from Pennsylvania and New Jersey, with some remarks on the song and egg-laying habit. The reference to the latter, freely translated, is as follows: ". . .

the females place their eggs in the forks of the branches and these eggs, which are like white points, are confined in a sort of hard and transparent gum-like mass of the size of a hazlenut."

Obviously this refers to the eggs of some other insect, but my own experience does not offer a satisfactory guess at its probable identity.

A female of one of the common cicadas collected at random on Plummers Island, Maryland, was placed in a jar with a hard, dry hickory twig of about one-half inch diameter standing

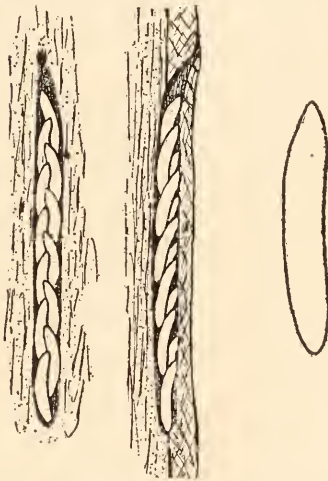


FIG. 2. Eggs of *Cicada lyricen* deGeer. Vertical and lateral view of egg-cluster in incision between wood and bark. Outline of single egg, enlarged.

upright in the sand. A few days later she was found dead, and on close examination two or three very slight indications of punctures were found in the smooth, hard bark. Many clusters of eggs were found by cutting into the bark, but in very few cases could the puncture be detected before the eggs were exposed. These punctures appear to have been closed with a mucilaginous secretion which allows the disturbed and broken fibers of the bark to swell back into their original position before drying, when they are firmly cemented together. In some instances a thin membrane like dried albumen covers the open spaces between the fibers. The incision is a cylindrical cavity 8 mm. long and less than a millimeter wide, parallel to the surface and usually in the inner bark, but often partly in the wood. One incision was found in which the eggs were within the wood itself. The eggs are laid alternately in a double row and usually number 12 or 13. The eggs measure 2.1 to 2.2 mm. in length by 0.35 mm. in width, are subcylindrical, slightly curved; one end tapers more gradually and is more evenly rounded, the other is more bluntly conical.

The identity of the female is somewhat doubtful, but appears from comparison with specimens in the National Museum, and reference to Smith and Grossbeck's paper, to be *Cicada lyricen* DeGeer.'

Dr. Hopkins thought these eggs were truly those of the cicada and complimented Mr. Barber on their discovery.

—Mr. Quaintance called attention to injury to walnut leaves and shoots by the walnut curculio, *Conotrachelus juglandis*, and exhibited photographs of the injury. Specimens of injured leaves and shoots have been received the present season from Titusville, Pennsylvania, Upper Marlboro, Maryland, and Stamford, Connecticut. Dr. R. T. Morris, writing of the injury at Stamford, Connecticut, states:

Ordinarily in the vicinity of my country place at Stamford, Conn., this species has confined itself, so far as I know, to the involucre of *J. cinerea*; at least I have never noticed it except there before. When I introduced large numbers of exotic walnut trees this beetle changed its habits, finding a suitable place for depositing its eggs in the rapidly growing herbaceous shoots of the species of Juglandaceæ mentioned (*Juglans regia*, *J. siboldii*, *J. cordiformis*, *J. cinerea*, and *Hicoria minima*). It has practically wiped out one orchard of *J. regia* for me and threatens the industry

'This determination has very kindly been confirmed by Mr. W. T. Davis.

so seriously that we probably shall have to give up raising *J. regia* in the East unless some means for control can be found.

The larvæ infest the swollen base of the leaf-stalk and also hollow out the tender shoots. As stated by Dr. Morris, the eggs are deposited in the shoots of various walnut trees from the first week in May until September, and he has noted beetles on the trees as late as October 5.

—Mr. Quaintance exhibited specimens of a chrysomelid beetle, the grubs of which had been complained of as quite injurious to cranberries in one locality in New Jersey. The insect was determined by Mr. Schwarz to be *Rhabdopterus picipes* Oliv. The species has not heretofore been reported as of economic importance, and, in fact, but little is known as to its habits.

The larvæ were present in a cranberry bog in the neighborhood of New Egypt, New Jersey, and had destroyed the plants in small patches here and there over the bog. The injury consists in the destruction of the fibrous roots of the cranberry plant and the eating off of the bark of the larger roots. The injury is very similar to that done by the grape root worm, *Fidia viticida*, to roots of the grape.

Observations made in the cranberry marsh indicate that the beetles feed, to a certain extent at least, on the tender foliage of the cranberry plant, and it is thought possible that advantage might be taken of this fact to secure their destruction by the timely use of arsenical sprays. Beetles confined with cranberry plants in rearing cages in the insectary at Washington fed freely upon the foliage, but spent a good deal of time below the surface of the soil, where they probably oviposit, as eggs were found in the soil.

—Mr. Schwarz remarked that of the multitude of eumolpid Chrysomelidæ which inhabit America hardly anything is known of their natural history or of their range of variation. Even in North America there are genera of which we know very little, for instance the genus *Typophorus*, which includes the strawberry leaf-beetle (now known under the name of *T. canellus* Fabr.). At present all our eastern spotted or black forms are listed as varieties of one species, whereas it is almost

certain that we have several good species among them. At any rate, the form described by Say as *Colaspis sexsignata*, which is very abundant on juniper (as already stated), never occurring on any other plant and never exhibiting any noteworthy color variations, is certainly a good species. How many species we have among the other forms must be settled by future observations.

The following papers were accepted for publication:

NEW SPECIES OF NOCTUIDÆ FROM THE GUIANAS.

BY W. SCHAUS.

Safia cæruleotincta, sp. n.

Female.—Palpi laterally fuscous brown irrorated with whitish. Frons brown. Vertex and collar dark reddish brown mottled with buff. Thorax dark brown mottled in front with buff; some bluish scales on patagia. Abdomen fuscous brown mottled with some pale scales; a darker transverse shade at base followed by some white irrorations on a dark red-brown shade. Fore wings chiefly dull steel blue; a fine and irregular, vertical, basal, and antemedial line; costa medially shaded with brown; a yellowish-brown shade at end of cell, forming the reniform, and beyond it in angle of postmedial line, which is surmounted on costa by a darker brown spot; a geminate, faint, medial line terminating in a large fuscous spot above inner margin; reniform outwardly edged with fuscous; postmedial outbent on costal margin, dentate and inbent to before reniform, outangled on fold, inwardly edged with brown on inner margin; a dentate whitish line outwardly edges the dark brown costal spot; an outer coarse, brown-black line interrupted at vein 5, dentate between 4 and 3, preceded by a dark shade below vein 2; subterminal dark spots inwardly shaded with light brown, and connected by short streaks to a faint lunular terminal line. Hind wings brown irrorated with dark red; costal margin, streak below cell, and inner margin grayish brown; postmedial and outer line dentate lunular, not reaching costa, the outer line heavily marked towards inner margin, forming two lunules; veins terminally irrorated with blue, especially veins 2-4; subterminal spots as on fore wings; the terminal line more distinct. Wings below dark grayish brown; white shades on cilia at vein 5. Fore wings; some white spots on costa towards apex; a dark postmedial line. Hind wings somewhat paler; a medial and postmedial line; a broad subterminal dark brown shade.

Expanse, 42 mm.

Habitat: St. Jean, Maroni River.

Barydia nigrescens, sp. n.

Male.—Palpi light brown shaded above with fuscous. Head and collar mottled light and dark brown. Thorax paler brown. Abdomen grayish