

MISCELLANEOUS INSECTS.—I also exhibit a number of alcoholic specimens of the larva and pupa, as also a mounted imago of the brilliant black, green and rust-red Lepidopteron, *Eumenia atala* Poey, recently collected by Mr. Schwarz at Cocoanut Grove, Fla., on *Zamia integrifolia*. The insect, on account of its brilliancy and its bright reddish larva, has been frequently treated of. I also exhibit another Lepidopteron—a Noctuid—received from Mr. Schwarz, viz., *Cloantha derupta* Morr., the larva of which Mr. Schwarz found upon Egg plant in southeastern Florida. It is interesting because of the great general resemblance which the larva bears to that of *Laphygma frugiperda*.

Finally, I would present specimens of a new genus, *Dendrotettix*, family *Acrididae*. I had reared the species which formed the type of the genus many years ago in Missouri in all its stages, and propose to describe it under the specific name of *quercus*. The peculiarity of the genus is that, as far as we know, it is essentially tree-inhabiting.

Dr. Riley also read the following paper :

•FURTHER NOTES ON PHENGODES AND ZARHIPIS.

By DR. C. V. RILEY.

I exhibit herewith some further larvæ of *Zarhipis* and its female. As compared with *Phengodes* this *Zarhipis* larva is somewhat more depressed, more parallel-sided, the thoracic joints less attenuated, and the pro-thoracic joint is more particularly shorter and transverse. When immature the color is pale, with but little brown, but when full grown the color becomes darker brown, and the general aspect, when the larva is stretched and active, is one that recalls the Myriapods upon which it feeds. The dead and dry specimens convey but a poor idea of the real form, as in life the larva can stretch to more than two inches in length and crawls easily and rapidly. The structure of the head is essentially similar but differs notably in the following particulars: The head itself is broader and more transverse, with the jaws broader and apparently more strongly elbowed near base. The antennæ have a very strong bulbus and are three-jointed, as in *Phengodes*; the nipple or terminal joint being stronger and the second joint being more often elbowed on the basil, *i. e.*, directed more outward; the joints are also somewhat stouter and shorter than in *Phengodes*. All the other trophi are similar to those of *Phengodes*, but broader and shorter; the maxillary palpi diverging more just as do the antennæ. There are a few very strong bristles around the head, one near the front and one just behind the antennæ being particularly noticeable. The surface of the body is somewhat more distinctly shagreened than in *Phengodes*. The medio-dorsal depression the whole length of the body is stronger, and in the pale specimens the brown on the superior surface leaves a similar medio-dorsal spot each side this line near the base of each joint, just as in the paler specimens of *Phengodes*.

I had the good fortune of seeing three of these larvæ alive while in Cal-

ifornia, last April. One of them had been found December, 1885, by Mr. A. Koebele, who had kept it in a jar of earth with dead leaves. It died while I was there, in April, 1887, having remained motionless and without food for nearly fifteen months. The second was in Mr. Rivers's possession and had shed its larval skin on April 2, 1887. This Mr. Rivers kindly gave me, and it shed its skin again April 18, and it is more particularly to this brief period of about two weeks that I wish to call attention because it represents a stage of development hitherto insufficiently characterized, and which may be likened to the pupa state. It is in reality a pseudo-pupal condition, the insect being neither larva nor imago. During this brief period the color is pale, there is no disposition to move, and the mouth-parts are more soft and undeveloped; the joints of antennæ and palpi are less distinctly formed and shorter, while the jaws proper are reduced to little more than useless tubercles. The perfect, larviform female, after shedding this pseudo-pupal skin (which differs from the other shed skins in being pale and more delicate), becomes darker again and in general appearance much more like the full-grown larva before it entered the pseudo-pupal condition. The color in the adult is uniformly dark brown above and much darker beneath than in the larva. In short, the perfect female is more strongly chitinized throughout, while the mouth parts are also darker and stronger, with more bristles, and the mandibles more distinctly elbowed and longer. The third specimen was given to me by Mrs. A. E. Bush, of San José, and, though not fully grown, died and became shrunken and rigid within a week in the box of dry earth in which I carried it while travelling.

The second specimen, from Mr. Rivers, was placed in a large jar with earth and placed where the male might reach it, and on April 25 had attracted a male. She subsequently laid eggs. These are spherical, 1.8-2 mm. in diameter, with occasionally an irregular impression no doubt caused by external pressure. Color yellowish-white when fresh, turning gradually to dirty yellow. Tolerably shining and with no sculpture visible.

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JULY 7, 1887.

Seven persons present. President Howard in the chair.

Dr. Riley exhibited various specimens, and made the following remarks upon them:

NOTES ON THE EVERSIBLE GLANDS IN LARVÆ OF ORGYIA AND PAR-ORGYIA, WITH NOTES ON THE SYNONYMY OF SPECIES.—Dr. A. S. Packard has called attention (*Am. Nat.*, 1886, page 314) to the fact that the two coral-red tubercles on the back of joints 9 and 10 in the larva of *Orgyia leucostigma* are in reality eversible glands, similar to that previously found by Mr. E. R. Poulton (*Trans. Ent. Soc., Lond.*, 1886, page 16) on the 10th joint of the European *Orgyia pudibunda*.