

Prof. Riley said that most were taken in the Beaver dens or houses, which always contained a mass of material which might attract the insects in question, and they were sifted either from the material of the nest or the earth underneath it. He said that the dens and nests were commonly connected with the banks of the stream under water, and with the air at some other generally hidden point, thus affording opportunity for the entrance of the insects, or that these might also be introduced with the material used in the construction of the den. With reference to the pupa of *Platypsyllus* he said that he was forced to the opinion that this stage is passed underground, in which belief Mr. Schwarz coincided.

Prof. Riley said, also, that the Mallophagan and the mites were found on the beavers themselves.

Prof. Riley also called attention to the Minutes of the Proceedings of the London Entomological Society for October 1, 1890, as published in the *Entomologist's Monthly Magazine* for November, 1890, and elsewhere. It is there stated that Mr. C. J. Gahan exhibited a "curious little larva-like creature" found in the mountain streams of Ceylon, and that there was a discussion as to what the larva was. From the brief characteristics given by Mr. Gahan it struck Prof. Riley that the larva referred to is that of some species of the Dipterous family *Blepharoceridæ*. He stated that good figures of a South American species, genus *Paltostoma*, have been published by Fritz Mueller, and that he (Prof. Riley) is familiar with the larvæ and pupæ of two North American species and has for many years had drawings of the same, which are not yet published.

He also called attention to an article in *Entomological News* for October last, in which, under the head of "What can it be?" Mrs. Julia P. Ballard, of Easton, Pa., describes a larva which has puzzled her because, while having some of the characteristics of *Citheronia regalis*, with which she is quite familiar, it nevertheless materially differs from that species. Her description leaves no doubt that the larva which so puzzled her was that of the only other congener, namely, *Citheronia sepulchralis*. This larva is not uncommon in the vicinity of Washington and along the lower Potomac, where it feeds

on *Pinus inops* and *P. taeda*; and fine blown and alcoholic specimens are in the Museum, collected by Mr. Koebele.

Prof. Riley then presented the following :

#### ON THE TIME OF TRANSFORMATION IN THE GENUS LACHNOSTERNA.

BY C. V. RILEY.

At the late meeting of the Association of Economic Entomologists, at Champaign, one of the most interesting papers read was that by Prof. S. A. Forbes on the larvæ of *Lachnosterna*—the paper being a summary of several years' study of the larvæ of different species. Prof. Forbes had found certain satisfactory larval characteristics that permit the distinguishing of the different species in the arrangement and character of the stiff hairs on the underside of the anal segment. This fact will prove of great value to us, for it has always been extremely difficult to refer any particular *Lachnosterna* larva to its species. I have heretofore endeavored to do so by the characters of the head and trophi, but have never felt great confidence when it came to closely-allied species. How generally applicable the distinguishing features recorded by Prof. Forbes will prove to be experience alone will determine; but his studies cover several well-known species that occur in Illinois. The feature, however, of Prof. Forbes's paper which I wish more particularly to call attention to relates to the time of year when transformation takes place in this genus. From recent experiments, Prof. Forbes is inclined to believe that the history of the White Grub, as given by authors, is a comedy of errors, and that the transformation invariably takes place in late summer or early autumn. The fact that transformation in some species, notably *fusca*, takes place normally in the fall has been quite generally known, at least to the members of this Society, and was brought out in a discussion of Mr. Smith's paper, presented before the Society at its October (1888) meeting, in which he showed the value of the genitalia in determining the different species. In my earlier writings on *fusca*, notably in the first Report on the insects of Missouri, (1868), I mentioned the spring transformation as the normal and the fall transformation as the exceptional, having up to that time had more occasion to obtain the insect in spring, with the turning up of the ground, than in the fall. In later articles (notably in the New York Semi-Weekly Tribune of November 12, 1875) I