

Unfortunately a more specific determination of the insects found to be carriers of polyhedra cannot be given at this time. The nature of the experiment made it impracticable to determine the specimens until after they had been examined for polyhedra. After examination, many were badly mutilated, and owing to a misunderstanding were discarded. It is to be remembered that the work done was only preliminary and was planned to indicate whether insects ever acted as carriers of polyhedra. Now that it has been clearly shown that they commonly do carry polyhedra, it is expected to continue the work another season and among other things to determine more definitely the insects acting in that capacity.

To sum up, little is known of how the infection causing the wilt disease of the gipsy moth is distributed. It is evidently not primarily a wind-borne disease. Certain insects found abundantly in association with the disease, frequent the foliage of trees and are known to carry polyhedra after contact with the wilt, which indicates that they may assist in spreading the infection.

TWO NEW MONOPHLEBINE COCCIDÆ FROM THE PHILIPPINE ISLANDS

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The Philippine Islands appear to be quite rich in Monophlebines; in addition to six species already recorded (all but one apparently endemic), the following two, received from Prof. C. F. Baker, must be described:

Llaveia benguetensis n. sp.

Male.—Length 4.5 mm., exclusive of abdominal processes; wings about 7 mm. long, black, with the usual venation and two hyaline lines; costal field dark reddish-brown; head and thorax black, the mesothorax shining, region just below wings dark red and dull; mesosternum enlarged, convex, polished black; eyes very prominent, constricted at base, placed at lower anterior corners of head; antennæ black, with very long black hairs; third joint with three nodes; legs black; abdomen broad, dark red, with the dorsal region strongly suffused with black, apex deeply emarginate; six long slender fleshy abdominal processes, the first pair shorter than the others, which are subequal, and are a little longer than the diameter of abdomen.

Hab.—Baguio, Benguet (Baker 5341). Resembles the Indian *L. stebbingi* (green), but is not at all dusted with mealy powder, and the distance between the second and third abdominal processes at base is very much greater. *L. fabricii* (Westwood), from Sumatra, is apparently, as Green remarks, another species of the same general type.

Drosicha palavanica n. sp.

Male.—Length about 3.5 mm., exclusive of abdominal processes; wings nearly 5 mm. long, black, with the usual venation and two hyaline lines; costal field dark

sepia; head and thorax dark red, front and mesothorax black; antennæ black, with long black hairs; third joint with three nodes; legs black; abdomen almost as broad as long, red, strongly suffused with blackish dorsally, with ten red fleshy processes, successively longer, each with long black hairs at end; the last processes are scarcely over one mm. long.

Hab.—P. Princesa, Palawan. The terminal caudal processes are much longer than in *D. maskelli* (Ckll.), but not so long as in *D. burmeisteri* (Westw.). Structurally, the species is like *D. leachii* (Westw.), but that is much larger. The male monophlebid now known from the Philippines may be tabulated thus:

Costal region broadly brilliant red; abdomen with six processes

L. sanguinea Ckll.

Costal region not red. 1

1. Abdomen with six processes. *L. benguetensis* Ckll.

Abdomen with eight processes. *L. luzonica* Ckll.

Abdomen with ten processes. *D. palavanica* Ckll.

In addition to these, I have specimens with eight abdominal processes, which are red, not plumbeous or blackish as in *L. luzonica*, from Mt. Makiling (Luzon). Batuan (Mindanas), and Cuernos Mts. (Negros). These differ slightly from each other, and probably represent new species, but it is desirable to learn more about them. From Baguio (Benguat) comes a male *Icerya*; easily known from all the above by its small size (wings less than 3 mm. long), abdomen with long bristles, but without long fleshy processes. *Icerya candida* Ckll. and *I. seychellarum* (Westw.) are known from the Philippines in the female sex.

Three Important Insect Pests have appeared in Minnesota during the past season, two for the first time. The Hessian fly (*Mayetiola destructor*) was reported in the autumn of 1914 near Minneapolis. Prompt measures were taken for the suppression of this small outbreak, but a few "flaxseeds" were found this time near the University Farm in October, 1915. The last appearance of this insect in Minnesota was in 1903.

The Western corn root-worm (*Diabrotica longicornis*) has been reported in Minnesota for the first time during the past summer, appearing in several widely separated localities in the southern quarter of the state.

The corn root-louse (*Aphis maidi-radici*) has also never been mentioned in any of the entomological reports of Minnesota. Last summer it caused extensive loss to corn in three widely separated localities in southern and south-western Minnesota.

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Labeling Parasite Material. Mr. Harry S. Smith, of Sacramento, Cal., noting my suggestion in the last Monthly Letter of the Bureau of Entomology in regard to labeling of parasites, suggests that where one is not absolutely certain of the host the label should be qualified in some way. He has adopted the plan of using the word "material." For example, if he has a box of scale insects of a certain species and rears parasites from it, he labels the parasites, say, "From *Saissetia oleæ* material." There are so many times a few individuals of some other species present but not visible that this is frequently a cause of erroneous records, and such a label as suggested immediately puts the parasitologist on his guard.

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