

A BRIEF NOTE ON CHALCODERMUS COLLARISHORN.

[Coleoptera, Curculionidæ.]

BY JAS. A. HYSLOP.

In the summer of 1907, while engaged in collecting parasited Rhyncophora for the Cotton-Boll Weevil Investigations, I collected a large number of seed pods of *Cassia chamæchrista* at Marr's Station, Md., infested with a then unknown curculionid larva. Part of this material was preserved and sent to Mr. Pierce for discription, the remainder was placed in rearing jars on the day of collection, September 17, and observed from day to day until October 1, when I was called away from this city. But no pupæ were found. On leaving Washington this material was handed over to Dr. F. H. Chittenden, of the Bureau of Entomology, who sent me the following note some time later:

Chalcodermus collaris issued from the cassia seed pods you left with me. They started to emerge October 4 and continued to appear until October 8.

Though this observation does not determine the length of the pupal stage of this insect, I give it as a guide to future observation.

THE COPULATING AND FEEDING HABITS OF IDIARTH-
TRON ATRISPINUS STÅL.

[Orthoptera, Locustidæ.]

BY A. N. CAUPELL.

From a translation of a letter from A. Tonduz of San José, Costa Rica, which was kindly furnished by Prof. H. Pittier, I quote the following paragraph:

One day I observed two of my crickets (*Idiarthron atrispinus*) copulating and after separating the female had two white gobular masses attached to her posterior: she then bent down so as to tear this white mass with her mandibles. I observed the same act with another subject and upon another occasion.

The above indicates that the ejection of the sperm mass by the male in the form of a bilobate seminal sac (the two masses mentioned in the above extract being very surely the two lobes of a single sac) is not confined to *Anabrus* and *Peranabrus* as recorded by Gillette,* and Snodgrass,† and long before by

*Ent. News, vol. xv, p. 321-324, pl. XIX (1904).

†Journ. N. Y. Ent. Soc., vol. XIII, p. 79-80 (1905).

Feilner.* When more is known of the mating habits of Orthoptera this will very likely be found to be quite common, at least in the Locustidæ. It has now been noted in *Anabrus*, *Peranabrus*, *Scudderia*,† and *Idiathron*, and I have seen much a sac in a cabinet specimen of a species of *Orophus*.

Idiathron atrispinus is an important enemy to the coffee plant according to the letter mentioned above. Last year was the first time the writer noted damage done by this insect. Its ravages probably commenced in late August or early September. During the day the insects hide in the dry or damp sheaths of the banana plant and probably in other lurking places of like nature. In the Museum Gardens at San José the two or three coffee trees had all their leaves pierced and an immense number of their berries peeled and sometimes entirely hollowed out by the bites of the insects. The crickets hide here during the day in the petiole grooves of a large perfoliate-leaved tree or under old manure sacks spread on the ground, but in coffee plantations their chief refuge is probably the banana. It is very hard, in fact almost impossible, to discover one of the insects in a coffee tree during the day, which fact delayed for some time the discovery of the real culprit. The nature of the injury indicated some strong-jawed depredator, and as this insect was very plentiful in the neighborhood it was suspected. Specimens placed in a jar with intact leaves and berries of the coffee tree established their guilt beyond question by producing exactly the same injuries as found on trees in the open.

*Rept. Smiths. Inst., 1864, p. 429-430 (1865).

†Ent. News, vol. XIX, p. 45 (1908).