Abnormal Antennae in Tragidion (Coleoptera: Cerambycidae).

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On examining a series of the cerambycid, *Tragidion armatum* Lec., a male was noted with both antennae distorted as follows:

Left antenna (Fig. 1a): First and second segments normal; third normal as to size and form but bent sharply in the distal third; fourth normal; fifth short, swollen distally and with a distinct hook-like process on the distal border. What is apparently the sixth segment is fused with the peculiar fifth, the probable line of fusion being indicated by a dotted line in the figure. This probable sixth segment is broad distally and ridged on the dorsal surface; seventh irregularly shaped with a slight swelling on the basal, mesial third and the median lateral third; probable eighth normal within the limit of specific variation; probable ninth distorted by a large irregular swelling on the basal lateral area; the probable tenth and eleventh are both normal.

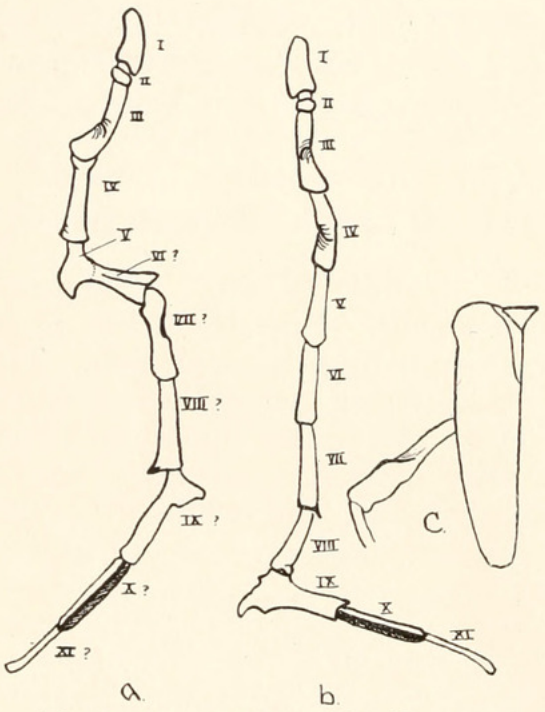

Fig. 1. Abnormality in *Tragidion armatum* Lec.: *a*, left antenna; *b*, right antenna; *c*, left elytron and meta-thoracic femur.

Right antenna (Fig. 1b): First and second segments normal; third normal as to size and form but bent broadly in the middle third; fourth as in third, but more sharply bent and slightly twisted; fifth, sixth and seventh segments normal; eighth normal save for an irregular, small swelling on the distal, mesial border; ninth highly distorted, with a large swelling on the basal third, ending in a hook-like process. Beyond this basal thickening the segment extends at right angles to articulate with the tenth. The tenth and eleventh segments are normal.

In the case treated here, we find but six segments of the left,

and seven segments of the right antenna normal, normality being determined by comparison with eighteen other individuals of the species taken at the same time. Variously distorted antennae are common in cerambycoid species (Bateson, 1894), and the formation of irregular processes from antennal segments has been touched upon by Park (1931). The abnormality of the antennae in the *armatum* under discussion is very probably a consequence of faulty pupation, or injury to the adult insect shortly after emergence from the pupal state and prior to hardening of the integument. This is strengthened by the fact that the left meta-thoracic femur was abnormally formed (Fig. 1c).

I am indebted to Mr. William J. Gerhard and to Mr. Emil Liljeblad of the Field Museum for aid in the identification of this individual. The latter was taken at Las Cruces, New Mexico, on May 20, 1931, while resting twenty feet above the ground on Yucca blooms by Mr. J. G. Keller, of the U. S. Forest Service, and is now in the collection of the writer.

LITERATURE CITED.

BATESON, WILLIAM, 1894. Materials for the study of variation. London: Macmillan and Co., xvi + 598 pp.

PARK, ORLANDO, 1931. Abnormal antenna in Eleodes. ENT. NEWS, 42: 112-113.

Booksellers' Reprints.

Mr. Gunder's article in the November NEWS amuses me. He evidently does not appreciate the time and trouble taken by us GRASPING bookdealers to preserve for *students* the various pamphlets which come to us in hordes and are a source of endless trouble and expense both of time and money (with catalogue costs at about $10.00 per page). Perhaps he thinks we sit up nights cutting up RARE VOLUMES of serials which are easily worth infinitely more as serials than they could possibly bring even at impossibly exorbitant prices, after dissection, for the various papers! Since the death of dear old Felix Dames (I visited him just two days before he died) I fear I am about the only book dealer who spends much time on entomological pamphlets, probably because I have entomological instincts and