A Centipede with an Abnormal Antenna.

By

Masanosuke Takesita,

Zoological Institute, Sci. Coll., Tokyo.

Among the collection of myriapods in my possession, there exists an interesting specimen of the centipede, *Otocryptops rubiginosus* Koch, in which the left antenna is in anomalous development as shown in the camera drawing reproduced in this paper. No abnormality exists in other parts of the body. The specimen was collected on April 24, 1916, in my garden in Tokyo. It is dark yellowish brown in general color and of a medium size, measuring 35 mm. in length of body.

Normally developed antenna of this species is setaceus and pubescent; it is of a similar color as, though somewhat lighter than, the body. It consists of seventeen segments or annulets, of which the one at base is the broadest, while the rest grow successively narrower towards the distal end. The intersegmental ring-grooves in relation to the eight proximal annulets are not so markedly pronounced as they are in the more distal parts of antenna. The last four or five annulets are catogenous in their way of being joined together.

Now in the specimen under consideration, the right antenna exhibits quite normal development, while the left is composed of only four segments. This is similarly colored as the other normal antenna, and both are equally pubescent. The first annulet in the abnormal antenna takes a nearly normal shape, but is decidedly larger than the corresponding annulet of the right antenna. Of the remaining three annulets, which are all quite abnormal, the second is a little narrower but much longer than the first. It is almost as long as the second and

third annulets of the right antenna taken together. Unlike a normal annulet, it is somewhat narrowed in the middle and swollen at both ends, and is slightly bent mesially in the distal parts. The third annulet is somewhat flattened and is about as long as the fourth, fifth and sixth annulets of the right antenna taken together. Its proximal, somewhat enlarged end is bent mesially; the distal parts are clavate. Due to the curvature of this and the preceeding annulet, the entire antenna takes a direction bent to the right. The last annulet is the largest, being as long as the five successive annulets from the seventh of the right antenna taken together. It is somewhat flattened like the preceeding one, but shows no enlargement at the proximal end. There can be no doubt of that being the last segment, since there exists no trace of injury at the extreme tip.

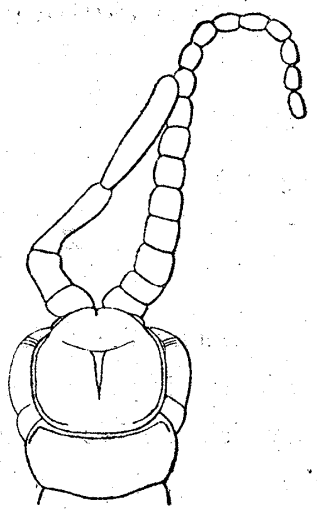

Fig. 1.

Among the papers regarding structural anomalies of myriapods, we find a number of cases of polymery of the legs, such as those described by SILVESTRI (1897), BRÖLMANN (1884), and LÉGER and DUBOSQ (1903). A case of abnormality of the gonopod was described by BRÖLMANN (1916). As to abnormality of antenna in the group, the specimen here noted seems to be the first case put on record.

It is difficult to decide in the specimen whether the abnormality is due to regeneration or is congenital. It is true that in the myriapods homomorphosis is commonly met with, not only in the legs, but also in the anal appendages. NEWPORTS observed the *same* phenomenon in his experiments with the antennæ of *Julus*. However, I am inclined to think that the case described above is not one of regeneration, and that on the ground that the first annulet or the basal joint of the abnormal antenna is larger than the corresponding annulet of the other

normal one. I should think that, were the antenna in question a regenerated one, the basal annulet should be smaller than, or at most about as large as, the same annulet in the normally developed state. The question can probably be definitely settled after more experimental data than we have at present regarding the regeneration of the antenna shall have become available.

Jan. 16, 1918.