

vestigial funicle joints incorporated into one side of the base of the club.

The single species included under *Philoponectroma* Brèthes is evidently a male *Anagyrus* and the males described under *Anagyrus* probably do not rightfully belong there. I have seen the males of a considerable number of reared species of *Anagyrus* and they always have the peculiar little scale-like hairs standing erect in a row on the sixth funicle joint and the base of the club. The original *Philoponectroma* is most probably the male of the genus *Paranusia* Brethes, which is hardly distinct from *Anagyrus*.

It also should be noted that *Aphycus nigritus* Mercet is preoccupied by Howard's species of the same name published in 1898, and that the original spelling of *Cheiloneurus* is not followed. For the genus *Tricladia* Mercet, 1918, the name *Tricnemus* is proposed by Mercet on account of *Tricladus* Enderlein, 1906, but according to American usage the change is unnecessary, *Tricladia* and *Tricladus* being sufficiently different. The generic name *Tyndarichoides* Mercet is preoccupied by Girault's genus of the same name (Proc. U. S. Nat. Mus. vol. 58, 1920, p. 189).

On the whole Mercet has produced an extremely valuable work which will prove to be indispensable to all students of this group, and deserves the congratulations of all workers interested in the classification of the Chalcidoidea upon its completion.

A NEW SPECIES OF ZORAPTERA FROM BOLIVIA¹.

BY A. N. CAUDELL, *Bureau of Entomology.*

Dr. Wm. M. Mann, entomologist with the Mulford Expedition to South America in 1921-1922, brought back a single specimen of Zoraptera, a dealated female fortunately in almost perfect condition. It proves to be an undescribed species of *Zorotypus* apparently the most nearly allied to the nearctic *Z. snyderi* Cdll., but conspicuously differing from that species by being black in general coloration instead of light yellowish brown, and also by various structural differences as shown by the following description:

Zoraptera manni, n. sp.

Winged female, other sex and forms unknown.—General color black, the palpi, the mouth, the antennal sockets and intersegmental sutures and the last two segments of the antennae as well as the tips of the tibia and the tarsi pale; eyes margined with pale color except the lower border; the whole insect beset with black hairs and setae, both on body and appendages, those of the abdomen

¹Results Mulford Biological Exploration.—Entomology.

situated mostly along the margins and directed posteriorly. Morphologically somewhat similar to *snyderi* but separable from that species by various points of difference; the antennae are nearer those of *snyderi* than of any other described species; the basal and third segments are no more than one and one-half times as long as broad while in *snyderi* the basal is almost and the third fully twice as long as broad; in *manni* the second segment is slightly more than one-half times longer than broad while in *snyderi* it is not at all more than half longer than wide; the last two segments of *manni* are pallid, being in strong contrast to the rest of the segments, which are blackish; in *snyderi* the entire antenna is light yellowish or brown, the last two segments not strongly contrasted with the rest. Pronotum slightly broader than long, slightly and gradually narrowing posteriorly, the lateral margins gently bowed outwards.

Legs noticeably stouter than in *snyderi*, the posterior femora being but two and one-half times as long as broad while in *snyderi* they are fully three times as long as broad; the anterior femora are noticeably more broadened mesially than in *snyderi*: posterior femora armed beneath on the inner margin with ten stout spines, the basal one scarcely its own length from the base of the femora, the next one fully its own length from the basal one and the rest at gradually and slightly decreasing intervals, the distance separating each from the other being less than the length of one of them; the apical spine is longer than the preceding ones and very slender, being indeed scarcely more robust than some of the apical bristles on the dorsal surface, and like them also in being slightly curved, thus being scarcely different and therefore it should probably not be considered as a ventral spine but as an apical seta; the outer lower margin of the hind femora bears three long slender spines, or stout setae; in the apical half and along the dorsal surface is a series of apically directed setae in more than one row; the posterior tibiae bear rows of moderately stout setae, all directed towards the apex of the tibia.

Wings broken away, the stubs only remaining, the point of breakage being basad of the point of commencement of the venation and the stub appearing as two small projections as described under *Z. hubbardi* Cdll.² The abdomen is plump; cerci similar to those of *snyderi*, the apical style scarcely twice as long as the cercus, the lateral ones no longer than the cercus.

Entire length, from front of head to tip of abdomen approximately 2.7 mm.; of posterior femora, .69 mm.; of pronotum, .42 mm.; width, pronotum, .47 mm.

Type, a single dealated female, Rio Ivon, Bolivia, February, 1922; the Mulford Exploration, Dr. Wm. M. Mann, collector.

Type in collection of the U. S. National Museum.

Catalogue No. 25751.

Dr. Mann, in whose honor this interesting species is named, collected the type during a canoe trip up the Rio Ivon, a tributary of the Lower Rio Beni. A brief stop permitted a few minutes collecting along the shore, and among the insects taken was this single specimen of *Zorotypus*, found under the bark of a decayed log in abandoned termite galleries. As thorough a search as opportunity afforded failed to reveal other specimens.

²Proc. Ent. Soc. Wash., vol. xxii, p. 87 (1920).

Dr. Mann has collected termites extensively in many regions but has never taken Zoraptera in actual association with white ants. In termitaria in trees and in termite-built mounds where the occurrence of Zoraptera might indicate relationship with the termites, it was not found, though search for inquilines was made in many nests. Dr. Mann thus concludes that the frequent occurrence of Zoraptera in or near termite galleries is attributable to the similar environmental requirements of the two groups; this view is in accord with those previously recorded by the present writer.¹

DESCRIPTIONS OF BIBIO (DIPTERA) FROM THE CAROLINAS.

By W. L. McATEE.

Mr. C. S. Brimley sent the writer for description the material of all but the first of the species mentioned in this paper. Holotypes have been deposited in the U. S. National Museum.

Male of *Bibio rufithorax* Wiedemann.

The male of this species has never been described, but I am able to remedy the deficiency, since two males were collected by Mr. E. R. Kalmbach of the U. S. Biological Survey, at Myrtle Beach, S. C., April 22, 1919, in company with a female recorded in a previous paper,² and with which they agree in essential structural characters.

Two of the leading characters for recognition of the species are the short inner spurs of the front tibiae and the blackish fumose wings. The integument of the male is black almost throughout, the legs being somewhat tinged with brownish, the tibial spurs translucent reddish, and the humeral ridges yellowish. The hair upon the eyes is of moderate length, erect and black; that of the occiput, thorax, and anterior half of abdomen longer, pliant and grayish, of the posterior half of abdomen of the same texture but black in color; the hair of the legs is chiefly bristly in character and black.

Bibio rufithorax is an addition to the long list of Bibionid species in which the sexes are differently colored, the female being the brighter.

Bibio alienus, n. sp.

Two pairs of *Bibio* collected in copula at Raleigh, N. C., April 19, 1921, by T. B. Mitchell appear to represent an undescribed species. (Holotype male and allotype female designated.) The inner spur of front tibia is much shorter than the outer.

¹Proc. Ento. Soc. Wash., vol. xxii, p. 97 (1920).

²Proc. U. S. Nat. Mus., Vol. 60, 1921, p. 13.