

good points, but the majority are worthless. In fact, rather than put faith in half of those which have been published it were better to rely on the recipe which T. A. Janvier gives in his charming article on "Mexican Superstitions and Folk-lore," published in a recent number of *Scribner's Magazine* (March, 1889, Vol. V, No. 3, p. 350), as current among the Mexicans:

To get rid of cockroaches—Catch three and put them in a bottle, and so carry them to where two roads cross. Here hold the bottle upside down, and as they fall out repeat aloud three *credos*. Then all the cockroaches in the house from which these three came will go away!

TWO SPIDER-EGG PARASITES.

By L. O. HOWARD.

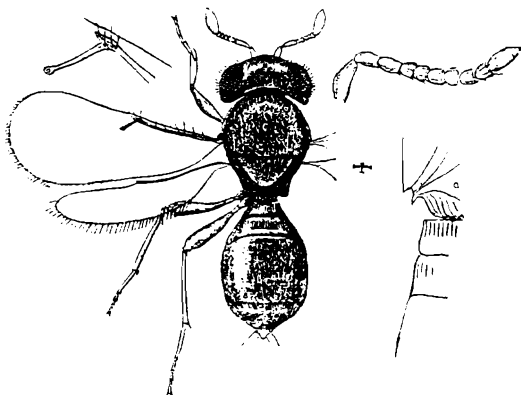


FIG. 58.—*Acoloides saitidis* Howard: female, showing wing veins—greatly enlarged; male antennæ and thorax from side—still more enlarged (original).

Following up the notes published from time to time in these pages on the subject of the hymenopterous parasites of spiders, I present below a description of two interesting new Proctotrupids of the subfamily Scelioninæ, the first of which was reared by Mr. L. Bruner at Lincoln, Nebr., from the eggs of the Araneid *Saitis pulex*. The eggs of this spider are a little more than a millimeter in circumference, and each egg harbors but one parasite, which issues by splitting the egg open rather than by gnawing a regular hole.

ACOLOIDES* n. g. (*Scelioninæ*).

Female antennæ with very large non-jointed club, and 4-jointed funicle. Male antennæ 12-jointed, submoniliform; club small, separable into three joints. Mandibles 3-dentate. Eyes hairy. Lateral ocelli situated on the eye margin. Mesoscutum

* *Acolus* + *eidos*.

without parapsidal sutures; mesoscutellum distinctly separated. Wings present. Submarginal vein reaching nearly to costa; marginal and postmarginal both exceedingly short; stigmal long, slender. Abdomen short, oval; first and second joints short, abdomen broadening rapidly from first joint; third joint very large; fourth and fifth visible.

It agrees with the points mentioned in the very insufficient characterization of Foerster's genus *Acolus*, except that it is winged. Foerster, however, knew only the female, and only mentions the fact that the antennal club is not jointed, and that the scutellum is developed, while the wings are absent or rudimentary.

Acoloides saitidis, n. sp.

Female.—Length, 1.4^{mm}; expanse, 3.6^{mm}; greatest width of fore-wing, 0.46^{mm}. Antennæ short; pedicel long, nearly one-half the length of scape; joint 1 of funicle one-half as long as pedicel; joints 2, 3, and 4 very short; club very large, oval, and one-third longer than four preceding joints together, but not quite as long as these joints and pedicel together; no articulations can be distinguished, but it is homologically composed of six joints. Eyes hairy; lateral ocelli touching the eye margin. Head, face, and mesonotum densely and finely punctate; parapsidal furrows not present; first and second abdominal segments with fine, close, longitudinal striae, wanting at smooth posterior border; the very large third segment and short fourth densely and finely punctate, and clothed irregularly with short, whitish pile, which is also present, although sparser, upon the mesonotum, and is quite thick on the vertex; mesopleura finely punctate below; metapleura smooth. The marginal vein is very short and not quite coincident with costa; the post marginal is extremely short; the stigmal is long and slender and terminated by a small rounded knob. General color, deep black; all legs and antennæ honey yellow; all coxæ black, lighter at tips; scape brownish and pedicel darker than club.

Male.—Differs from female only in antennæ which are plainly 12-jointed; joint 1 of funicle as long as pedicel, joints 2 to 7 subequal in length and width, and each as broad as long and well separated; club oval, nearly as long as three preceding joints together. Antennæ uniformly honey yellow.

Described from 9 male, and 1 female specimens.

Genus *BÆUS*.

Minute wingless *Scelioninae*, without differentiated scutellum and with non-jointed antennal club.

Bæus americanus n. sp.

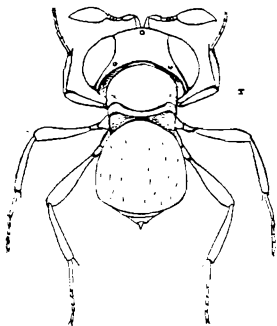


FIG. 59.—*Bæus americanus*. Female—greatly enlarged (original).

Female.—Length 0.65^{mm}. Length of antennal club .185^{mm}, or in other words the entire body is only three and one-half times as long as the antennal club. Width of antennal club .082^{mm}. General color dark honey-yellow; scape and funicle of antennæ brownish, club lighter, dark at tip; vertex and face light honey-yellow; dorsum of thorax and abdomen dark honey-yellow, almost approaching mahogany; legs throughout concolorous with head; middle and hind tibiae a little darker near base. Surface of abdomen smooth, shiny; mesonotum very faintly punctate. Thorax and abdomen with extremely fine, sparse, whitish pile; tip of abdomen with a short and contracted fringe of white pile. Antennal club very large, longer than rest of funicle and pedicel together; funicle joints very narrow and short, subequal, pedicel wider and as long as entire funicle except club.

This rather uncharacteristic description is drawn up from three poorly mounted and mutilated female specimens given me ten years ago by Dr. Marx, who I think received them from Col. Nicolas Pike, of Brooklyn, N. Y. They are labeled "Parasites in spider eggs in orange cocoon, collected 1871." After an examination of the eggs, Dr. Marx tells me that nothing can be said with certainty regarding the host except that it belonged to the family *Epeiridæ*.

No species of *Bæus* has yet been described in this country, although Mr. Pergande and myself have collected two or three undescribed species which are deposited in the National Museum collection. But one species is known in Europe—*B. seminulum* Haliday, but as I know of no recognizable description of it the present species is given a new name.

ON THE PARASITIC CASTRATION OF TYPHLOCYBA BY THE LARVA OF A HYMENOPTER (*Aphelopus melaleucus* DALM.), AND THAT OF A DIPTER (*Ateleneura spuria* MEIG.).

By M. A. GIARD.*

The larvæ of the Hymenopterous and Dipterous parasites of *Typhlocyba*, which I have described in a former communication,† belong: the first to *Aphelopus melaleucus* Dalman, the second to *Ateleneura spuria* Meig. (*A. velutina* Macq.; *Chalarus spurius* Schiner).

I have bred in captivity these two insects which have, as also their hosts, *Typhlocyba*, two yearly generations. The first infests the nymphs during the latter half of June, hatching about July 1; the other infests, the second generation of *Typhlocyba*, transforming in the nymphs towards the end of September or in October, and probably passing the winter in that state to yield the perfect insect the following spring.

If one compares these observations with the facts formerly described by Perris (parasitism of *Dryinus pedestris* Dalm. on *Athysanus maritimus* Perris) and by J. Mik (parasitism of *Gonatopus pilosus* Thoms. on *Deltocephalus xanthoneurus* Fieb.), it becomes very probable that Procotrupids of the family *Dryinidæ* are generally parasites of Homopters of the family *Jassidæ*.

And again, in comparing the results of our investigations with the old ideas of Boheman on the infesting of various leaf-hoppers by Dipterous larvæ, in particular, of *Cicadula virescens* Fall. (*Thamnotettix sulphurella* Zett.) by the larva of *Pipunculus fuscipes* Fall., it becomes equally probable that the Dipters of the family *Pipunculidæ* are in general parasites of Homopters of the family *Jassidæ*.

* Translated from *Comptes rendus*, Nov. 4, 1889 (Vol. cix, No. 19, pp. 708-710).

† See *Comptes rendus*, July 8, 1889.