

On comparison of these loose leaves with the copy of Oliver in the Library of the Bureau of Entomology the Hentz illustrations prove to be very faithful copies, a little lighter in color as a rule, but with the added effort in some cases of indicating high lights on dark species, which improved their general appearance as compared with the copy of the printed work in Washington. In a few cases the colors are not completely worked in.

In the copies of the descriptions useless words are omitted. For example, should the original read, "Les antennes sont noires," Mrs. Hentz would simply write "Antennes noires." But no useful descriptive word is omitted. The enormous amount of copying that Harris, Fitch and other early entomologists had to do in the absence of funds for the purchase of rare works is a matter of frequent record. It is doubtful, however, if there exists a more perfect and useful manuscript than the one just described. It will be extremely useful, even today, since it brings together in compact form only the North American species described and figured by Olivier. It will be deposited either in the Library of the United States National Museum or in that of the Bureau of Entomology, where it may be consulted.

THE NORTH AMERICAN SPECIES OF *PACHYNEUR ON*
WITH THREE NEW SPECIES (CHALCID-FLIES).

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Based on the types (except *albutius*). Females.

I. Legs yellow except the coxæ (compare *anthomyia*).

Scapeblackish. (Is a *Dibrachys*.)

nigrocyaneum Norton

Scape yellow. As in *anthomyia* (of which it is a probable variant). Median carina of propodeum sometimes single (the abdominal petiole not strongly striate). (= *syrphi* Ashmead) (= *syrphicola* Ashmead.) *albutius* Walker

II. Legs with at least the coxæ and femora concolorous or the latter darkened. Spiracular sulcus narrow, distinct, no

lateral carina. Mandibles 4=dentate. Clypeal projection with a tooth on each side of its base.

Abdominal petiole over twice longer than wide, scaly.

Neck of propodeum conspicuous; clypeus with its projection with a concave distal margin. Coxæ and femora submetallic. Scape yellow. Median carina of propodeum obsolete. . . . *altiscuta* Howard

Abdominal petiole only a little longer than wide.

Clypeal projection truncate or subtruncate.

Coxæ metallic, femora washed with metallic.

Scape pale.

Propodeum with a more or less complete (paired and diverging) median carina which is somewhat like a ruga and rather delicate, variable. Funicle joints all short, somewhat variable. Abdominal petiole scaly. (= *allograptæ* Ashm.)

anthomyiæ Howard

The same. Propodeum with single median and lateral carinæ, the latter more or less obscure and paired at base; petiole with strong longitudinal striæ. Scutellum with a distinct cross-suture before apex. Segment 2 of abdomen caudad at meson faintly emarginate. . . . *hammari* Crawford

The same but scutellum without a distinct cross-suture before apex (only a faint obscure ridge in its place as in other species), segment 2 of abdomen is sharply minutely incised caudad at meson (as in the other species), the spiracular sulcus is twice broader while the median and lateral carinæ of the propodeum are more delicate

virginicum sp. nov.

Scape with the distal half metallic.

The same as *hammari* but the cross-suture of the scutellum is indicated by coarser punctures, distad of its site, the caudal margin of segment 2 of the abdomen is convex, entire, the median carina of the propodeum is represented by several interlacing, delicate rugæ broadly across the meson while

the tibiæ are dark except at each end or reddish brown.....*texanum* sp. nov.
 Scape wholly metallic except at the extreme base of its body; the bulla metallic.
 Propodeum as in *Propachyneuronia siphonophoræ* Ashmead (plane with a neck and spiracular sulcus). Scutellum with no indication of a cross-suture; segment 2 of abdomen slightly emarginate at meson caudad, convex there. Petiole subquadrate, finely scaly. Funicle 1 somewhat the smallest.....*californicum* sp. nov.

***Pachyneuron virginicum* Girault.**

Female: Like *hammeri* Crawford except as pointed out above. The male is the same except that the funicle joints are considerably longer, 1 twice longer than wide.

From a pair reared from wingless, viviparous females of *Aphis sorbi* Kalténbach on apple. Blacksburg, Virginia, August, 1915 (M. T. Smulyan).

Types: Catalogue No. 20368, U. S. N. M., the pair on tags, the male head and caudal tibia on a slide.

***Pachyneuron texanum* Girault.**

The types are three females reared at College Station, Texas, in February, 1891, from wheat (F. M. Webster). Catalogue No. 20369, U. S. N. M., the examples on tags, a head and a caudal tibia on a slide.

***Pachyneuron californicum* Girault.**

The males have the legs white except the coxæ and the proximal half of the caudal femur; the scape is nearly wholly whitish, the funicle more hairy, with joints 1-2 subequal and over twice longer than wide. The types and cotypes are three pairs on tags with a slide bearing a female head and caudal leg. Mt. Antonio, Calif., 6,000 feet, July 20, 1911, and Carpenteria, Calif., August 17, 1911 (P. H. Timberlake). Catalogue No. 20370, U. S. N. M., two pairs on tags (Mt. Antonio) and the slide.



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