NOTES ON ASILIDÆ, WITH TWO NEW SPECIES.

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In the genus *Asilus* Hine has used as diagnostic characters the bristles on hind border of the scutellum and on front side of the hind tibiae. There are cases where these seem to help very much, but there are so many cases where they mislead that I think a division of the genus on a color character (whether hind femora entirely black or not) is much more useful for our Eastern species. For *A. notatus* but two scutellar bristles have been described, yet in many cases there are four or five, and often three. The tibial bristles are apt to confuse *A. lecythus* with *A. paropus*, if one is not familiar with the species.

*Asilus autumnalis* sp. nov.

Face yellowish, white on the tuberosity, mystax black above and yellowish or yellowish-white below, beard white; antennæ black, third joint with sides more parallel than in *A. novascotia*, bristle full as long as third joint. Thorax with dull black median stripe, indistinctly divided in front, and two spots each side behind, rest with yellowish dust, black hair in front and black bristles behind; scutellum with two bristles on the hind margin; abdomen brown, mostly clothed with yellowish pollen on sides and behind, and yellow hairs all over. Legs with black femora, the tibiae and metatarsi pale yellowish, with black tips. Wings as in *A. novascotia*. The male forceps are more narrowed at tip than in *A. novascotia*, and the tip more bent downward, so that the lower side is plainly concave. Length, 14-15 mm.

From Falls Church, Va., in August and September.

Our local species of *Asilus* which have the hind femora entirely black may be distinguished as follows:

1. Front and middle femora largely yellow; ovipositor very long... *flavifemoratus*.
2. Front and middle femora black...
3. All tibiae pale only at extreme base; metatarsi black; mystax black and white...
4. Mystax mostly golden, tibia I wholly clear yellow; abdomen black, with white hair, no yellow pile; male forceps furcate at tip... *orpheus*.
5. Male forceps not furcate, tibia I not all clear yellow... *sadytes*.
6. Mystax mostly black; hind tibiae mostly dark; abdomen dark, with pale gray apical margins to segments...

5. Mystax mostly white; male appendages not much narrowed nor bent down at tip. \textit{novascotiae}. Mystax whitish or yellowish below, black above; male appendages more curved and narrowed at tip. \textit{autumnalis}.

Of \textit{Leptogaster} I have taken most of the Eastern species, and in going over these I am inclined to keep \textit{flavipes} and \textit{favillaceus} as separate, at least as varieties, and would describe a new species. As in \textit{Asilus} I think the color characters are here more valuable than some structural ones, at least more useful than venation.

1. No empodia; hind femora with band before broadest part; hind tibæ with band at base and at middle dark; thorax pale; antennæ yellow \textit{annulatus}.

Empodia present ........................................ 2

2. Hind tibæ dark only at extreme tip; hind femur usually not plainly banded. 7

Hind tibæ dark for a considerable distance; hind femur dark or dark-banded ........................................ 3

3. Legs mostly black; antennæ dark; hind legs very slender \textit{tenueipes}.

Legs mostly pale ........................................ 4

4. Dorsum of thorax wholly shining black; hind femora with apical dark band, and another over the beginning of the swelling \textit{atridorsalis}.

Dorsum not wholly shining black ........................................ 5

5. Thorax with three black stripes; hind femora with band over thickened part; antennæ pale \textit{virgatus}.

Thorax without such stripes ........................................ 6

6. Antennæ dark; hind legs short, and the swelling greater than usual, and covered by broad band, the dark of hind tibæ undivided \textit{pictipes}.

Antennæ yellow; hind legs longer, the dark band on hind femora not so broad; the dark of hind tibæ divided by pale \textit{brevicornis}.

7. Thoracic notum polished reddish, often a black spot behind on each side; hind femora with a small dark band ........................................ 8

Thoracic notum not polished reddish ........................................ 9

8. Body mostly reddish \textit{testaceus}.

Body mostly dark, and with pale marks \textit{badius}.

9. Abdomen yellow on basal part, only dark over the incisures \textit{incisuralis}.

Abdomen with much more dark ........................................ 10

10. Abdominal segments dark, pale only near apex; hind femora show a faint dark mark, bristles of thorax black \textit{loewi}.

Abdominal segments with pale before middle on third, fourth and fifth segments ........................................ 11

11. Lower anterior bristle of the two thoracic ones pale, larger species with duller marks \textit{favillaceus}.

Both thoracic bristles dark, marks on abdomen strongly contrasting \textit{flavipes}.

\textit{L. virgatus} Coq. probably is \textit{L. carolinensis}. \textit{L. incisuralis} Loew probably is \textit{L. ochraceus}.