A NEW DRAGONFLY FROM VIRGINIA.

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The dragonfly Neurocordulia obsoleta Say (polysticta Burmeister), is crepuscular in habit, and usually a rare insect. It has been reported from Maine and Massachusetts, as far west as Illinois, and as far south as Louisiana. Neurocordulia yamaskanensis Provancher is also recorded as uncommon, and if anything more crepuscular in habit than obsoleta. It is recorded from Maine, the Province of Quebec, and also occurs in Ontario, as is stated by Prof. E. M. Walker.

The writer has collected but three specimens of obsoleta though others have been examined. They are usually disturbed in some situation where they have been at rest. He has also in his collection a female Neurocordulia collected close to the James River in Buckingham County, Virginia, June 21, 1919. It was found in the partly forested country while collecting insects with Col. Wirt Robinson. This specimen has been shown to a number of specialists in Odonata, and compared with all the specimens of obsoleta available. It differs in a number of important characters, and is no doubt a representative of a rare and undescribed species of Neurocordulia, which like obsoleta and yamaskanensis is also crepuscular in habit. It was hoped that additional specimens might be collected, but while the writer, through the kindness of Colonel Robinson, has since visited the locality, it has been in August, and possibly too late for the Neurocordulia. On July 6, 1919, a very old female obsoleta with clouded wings was collected at Wingina, Va., on the opposite side of the James River from Buckingham County.

In Psyche, July, 1890, Dr. Hagen gives descriptions and illustrations of both obsoleta and yamaskanensis, and in Howe's Manual of the Odonata of New England, there are also figures of appendages. In Entomological News, November, 1908, Plate 18, Mr. E. B. Williamson figures the wings of yamaskanensis, as well as those of the allied Platycordulia xanthosoma Williamson. While the Virginia specimen resembles xanthosoma in some respects, it is a true Neurocordulia, having the anal loop separated from the wing margin by one row of cells, and not by two, as in Platycordulia. The shape of the anal loop is also the same as in Neurocordulia.

Neurocordulia virginiensis n. sp.

Type, female. Buckingham County, Virginia, June 21, 1919. Davis collection.

Of the same size as obsoleta, but with the wings not as densely reticulate, and the pterostigma shorter with its front and hind margins not as parallel. No cross-veins in the median (basilar) space behind the arculus, whereas in obsoleta there is a cross-vein in this space in both fore and hind wings in all the specimens so far examined. In having no cross-vein in the basilar space, it resembles yamas-kanensis but it lacks the numerous cross-veins and spaces beyond the pterostigma in both the fore and hind wings present in yamaskanensis and obsoleta. Virginiensis also lacks the third row of cells below Cu₂ in the fore wings, present in both the other species of the genus. Other differences in venation may be seen by comparing the figure of the female from Cabin John, Maryland, June 10, 1910, with the type.

The abdominal appendages are pale brown, darker at tips, and shaped as in obsoleta, but shorter. They are about twice as long as the last segment, whereas in obsoleta they are plainly more than twice as long. The vulva notch (see figure) is differently shaped and broader than in either obsoleta or yamaskanensis as figured both by Hagen and

Howe.

The general color of *virginiensis*, taken from the more or less faded type, is yellowish brown, with the front, mouth parts, legs except the tarsi and spines which are black, pale greenish yellow. The membranula are as in *obsoleta*, white at basal half with the apical portion blackish. Both the fore and hind wings are almost devoid of spots, the pale yellow ones showing much more plainly in the photograph than in the specimen itself.

Measurements in millimeters: Female type: Total length with appendages, 49 mm.; width of head across eyes, 8 mm.; length of abdomen, 36 mm.; length of front wing, 34 mm.; length of front tibia, 4.5 mm.; length of

hind femur, 6 mm.

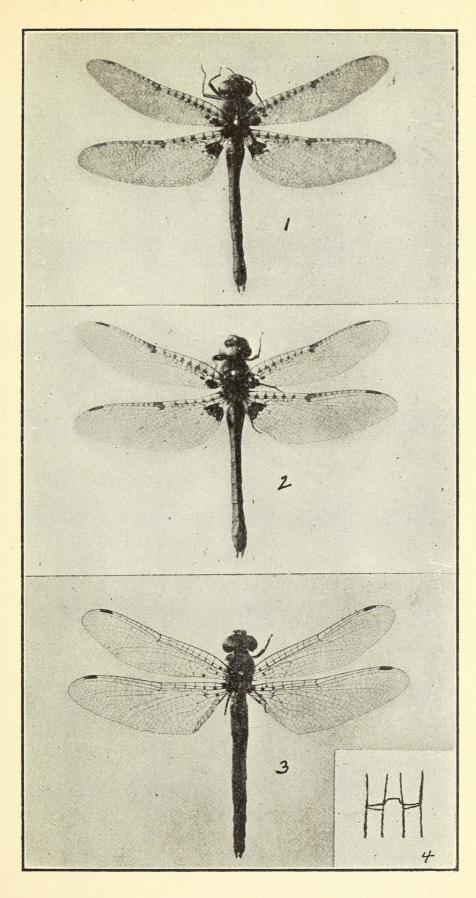
EXPLANATION OF PLATE X.

Fig. 1. Neurocordulia obsoleta Say, Wingina, Va., July, 1919. Fig. 2. Neurocordulia obsoleta Say, Cabin John, Md., June,

1910.

Fig. 3. Neurocordulia virginiensis Davis, Type, Buckingham Co., Va.

Fig. 4. Neurocordulia virginiensis, vulva opening.





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