Æshna palmata Hagen.

During the summer of 1913 I reared a number of specimens of this species and obtained a large number of exuviæ. A study of this material shows that the two exuviæ referred to this species in my "North American Dragonflies of the Genus Aeshna" were correctly placed, but that some of the characters used to separate it from *A. umbrosa* are not valid.

I now possess a large series of exuviæ of both species, including several of *umbrosa* from Vancouver Island, where most of my nymphs of *palmata* were taken. I find that the two species at this stage are so much alike that in many cases it is a difficult matter to separate them with certainty. The form of the living nymph is probably invariably stouter in *palmata*, but this difference is often difficult to detect in preserved material, though usually evident enough, to the trained eye, in the exuviæ. The difference in the form of the labium is often but slight, but it seems to be always slightly broader at base in *palmata*. The absence of an internal apical tooth on the lateral lobes, employed by me as a differential character for this species (N. Am. Aeshna, pp. 68, 162), is a mere individual variation. The tooth is normally present as in *umbrosa*. The differential based upon the supra-coxal processes seems to be constant and is certainly a useful character. The posterior process is always the stouter and often the longer in *umbrosa*, while in *palmata* they are equal or very nearly so, the anterior being sometimes the larger (pl. XXV, figs. 4-5).

The ovipositor is slightly larger in *palmata* and extends slightly beyond the hind margin of segment 9, but seldom covers as much as one-third of segment 10 as given in the key. In *umbrosa* it just reaches the margin.

These differences in width of labium and abdominal segments and in length of ovipositor will be best appreciated by referring to the following table, which is based upon three males and three females of each species, taken at random. The first three of each species are males. The length of these specimens is nearly the same throughout the series. The relative size is roughly indicated by the lengths of the hind femora.