

A New Tertiary Dragon Fly
***Oplonæschna staurophlebioides* n. sp.**
from Denmark.

By

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At Moselund West of Silkeborg in Jutland was found in 1916 a Tertiary bed containing a rich flora of fossil plants; the stratigraphy and contents of fossils of this bed will be treated by Mr. FR. J. MATHIESEN in the publications of the Geological Survey of Denmark. The age of the bed is Lower Miocene or Upper Oligocene; the flora has been termed Aquitanian by Mr. MATHIESEN.

In this layer was found a single insect remain which was transferred to me for examination. It is a fragment of an Odonate hind wing. At a mere glance it proved to originate from an Aeschnid, and within this family to belong to the group *Aeschninae*, which may also be substantiated through a comparison with the different types known (treated and figured in JAMES G. NEEDHAM: A Genealogic Study of Dragon-fly Wing Venation. Proc. U. S. Nat. Mus. XXVI, 1903 p. 703—764, pl. XXXI—LIV).

As shown in the figure below the basal as well as the apical part of the wing are missing. Both these parts being of the greatest importance to further systematic reference (compare f. inst. T. D. A. COQUERELL: Two fossil Insects from Florissant, Colorado, with a Discussion of the Venation of the Aeshnine Dragon Flies. Proc. U. S. Nat. Mus. XLV, 1913 p. 577—583, in which an excellent systematic key to all known recent and fossil Aeschnins, founded on venation), we have to be content to judge of the value of the characters visible on the preserved part.

Between M_2 and R_s are seen apically 2 rows of cells. Apically M_2 bends rather strongly upwards, and from this we must conclude that stigma has been situated near the present edge of the piece. We may further conclude that

9. 4 HENRIKSEN: A new Tertiary Dragon Fly from Denmark.

Rs which is unforked on the part preserved, has been completely unforked as an eventual furcation certainly would have taken place on the preserved area. This form therefore must have its allies in genera such as *Allopetalia*, *Oplonæschna*, *Oligoæschna*, *Gomphæschna*, *Lithæschna*, *Basiæschna*, and *Boyeria*.

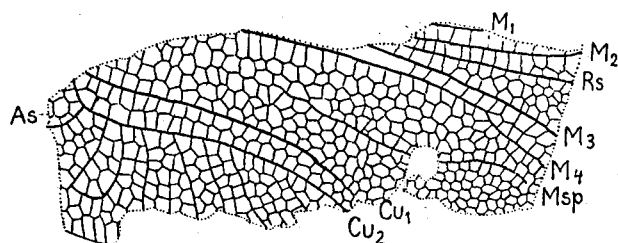


Fig. 1. Hind wing of *Oplonæschna staurophlebioides* n. sp. $\frac{2}{1}$.

Between M_3 and M_4 are found apically 2 rows of cells. M_{sp} is basally tapering and then disappears; apically it is largely opisthocurved.

Between M_4 and Cu are seen a particularly great number of cells; thus about 10 longitudinal rows are to be counted midway.

The space between Cu_1 and Cu_2 presents 2 rows of cells in its entire length.

From Cu_2 several (8) distinct veins are seen running towards the back edge of the wing, of which edge only very little is seen. Among these veins we must especially call the attention to the innermost which is outlining the anal loop which has a central cell.

The presence of the combined characters here set forth certainly indicate a species of the genus *Oplonæschna* which genus is known as recent as well as Tertiary.

The present species cannot be identic with any of the 2 described Tertiary species viz *metis* HEER from Lower Miocene Radoboj (O. HEER: Ins. Oen. II., 1849 p. 68 pl. 5 f. 1) and *separata* SCUDD. from Miocene Florissant (SCUDDER: The Tertiary Insects of America, 1890, p. 144,

pl. 13 f. 15) both these species having a much smaller number of cells between M_4 and Cu_1 . That our species has many cells between these two longitudinal veins thus is the best characteristic for identification; an equally great number of cells is found in the genus *Staurophlebia* (to which our species cannot be referred on account of its unforked Rs), and therefore I have chosen for it the specific name of *staurophlebioides*.

Length of the preserved piece 35 mm.

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