

are unusually large, *T. Parkinsoni*, for instance, measuring as much as 5 cm in length. This makes it impossible for the minute valves of "*Sporangites*," which measure only 4-5 mm in length to be the cupule of any of the *Trigonocarpums*. Consequently, in consideration of the sound evidence in favour of the view that *Trigonocarpum* is the seed of *Alethopteris*, it is impossible to imagine *Sporangites* in any form in the role of female fructification of the group. If, therefore, Dr. Matthew should be right about the *Sporangites* segments containing seeds, that would tend to disprove his presumption that they belong to *Alethopteris* "*discrepans*." On the other hand, if he is right about their association with the plant, then they can only represent the male fructifications. They do not seem to bear any resemblance to the male organs of any other Pteridosperm of which these parts are known, so that it is difficult to express an opinion on the subject. I, therefore, describe them separately under Dawson's name (see p. 73) with the reservation that association (a most dangerous criterion in many cases) with *A. lonchitica* in a number of slabs may suggest the possibility that they are its male organs.

*Genus MEGALOPTERIS, Dawson.*

1871. *Neuropteris (Megalopteris)*, Dawson, Foss. Pl. Devon. Upp. Silur., Geol. Surv. Rep., p. 51.  
 1875. *Megalopteris*, Dawson, Andrews, Rep. Geol. Surv. Ohio, pt. 2, p. 415.

The genus is characterised by simple pinnate fronds, irregularly branching, with long, strap-like, decurrent pinnules. The nervation resembles that of a *Neuropteris*, and the veins dichotomise several times on their curved course to the margin. White (1899, p. 129) says of the genus "*Megalopteris*, while possibly less ancient than certain of the early Callipteridioid *Neuropteris* species, may, nevertheless, be taken as an example of the archaic composite type of Neuro-Alethopteroid fern life."

*MEGALOPTERIS DAWSONI, Hartt in Dawson.*

Plate XIII, figure 34.

1865. *Neuropteris*, Sp. nov. Hartt, in Bailey's Report, Append. A., p. 137.  
 1868. *Neuropteris Dawsoni*, Hartt, Dawson, Acadian Geol., p. 551, fig. 193.  
 1871. *Neuropteris (Megalopteris) Dawsoni*, Hartt, Dawson, Foss. Pl. Devon. Upp. Silur. Canada, Geol. Surv. Rep., p. 51, pl. XVII, figs. 191-194.