

As so much stress has been laid on the discontinuous form as being confined to the Little River deposits, while I was in the field I took particular interest in the matter, and made a special journey to the Joggins Carboniferous section (acknowledged by the whole world to be a typical Coal Measure series) to seek for the plant there. I was quickly rewarded by finding innumerable fragments of "*discrepans*" with the discontinuous leaf bases. Some of these fragments had broad leaflets like the larger St. John "*discrepans*" (cf. my fig. 32, pl. XIII, and some of the smaller type, see my fig. 33, pl. XIII. Compare this last with Dawson's 1871 pl. XVIII, fig. 205, which was refigured by Matthew, 1910A, pl. III, fig. 3). More protracted search would doubtless be rewarded by larger and more perfect leaves, but the numerous fragments I found in two days indicated that the form is as common in the Joggins Coal Measures as it is in the Little River beds of St. John.

The a-symmetrically placed vein again, has been brought forward as a character in which "*discrepans*" differs from *A. lonchitica*. But reference to Renier's admirable plate 92 (Renier 1910) will at once dispel that illusion. Indeed, the fragments shown in Renier's plate and that photographed (one of Dawson's own specimens) in my pl. XII, fig. 30 are so absolutely identical as finally to clinch the proof that "*A. discrepans*" is *A. lonchitica*. The outline diagrams, text fig. 8 of the three plants, will illustrate this. The first is an outline from Dawson's specimen of "*discrepans*," the second is traced from Renier's plate of *A. lonchitica*, and the third is from a specimen I found at Joggins. They are self-evidently the same thing. After I had reached, by the reasoning outlined above, and my experience in the field, the above conclusion, I accidentally came across a footnote by Dr. Jongmanns in his valuable work on the *Calamites*. Jongmanns (1911, p. 374) says "*Matthew's Johannophyton* n. gen. *discrepans* ist einfach *Alethopteris lonchitica*."

Having, therefore, demonstrated the identity of the plant with the well-known and widely distributed European form, there is no need to be at pains to point out why Matthew's new genus "*Johannophyton*" cannot stand. Something must be said, however, about the fructification attributed by Dr. Matthew to the plant.