

from the upper Pottsville of the Appalachian province described in manuscript by the writer as a variety of *Neuropteris Schlehani* Stur.

*Locality.*—"Fern ledges," Lancaster formation, near St John, New Brunswick.

The type of the species is with No. 73 (391) in the collections of the Geological Department of McGill University, Montreal, Canada.

#### RELATIONS AND SYSTEMATIC POSITION OF THE SPECIES.

The species of *Whittleseya* from Nova Scotia and New Brunswick are closely allied to the southern representatives of the same genus. The *Whittleseya desiderata* has the aspect of a diminutive *W. elegans* Newb., an example of which, from the type bed and vicinity, is, for comparison, shown in Pl. VII, Fig. 5. In the small species the teeth are less acute, while the bands are more confluent, more carinate, and less ribbon-like than in the Ohio plant. In respect to the nervation, the former species agrees perhaps more nearly with the material from the roof of the Sewanee coal of Tennessee placed by Lesquereux in *W. undulata*. The compactness of the fascicles also approaches the nervation of *W. microphylla* (Pl. vii, Fig. 7.) In fact, the longer Riversdale species appears, while ranging most closely to *W. elegans* and *W. undulata*, to stand on the side toward the cuneate *W. microphylla*.

The *Whittleseya brevifolia*, though nearest to *W. desiderata*, suggests by both its form and nervation a position between the latter and the *W. microphylla*, an example of which, from the Type locality,<sup>1</sup> is illustrated in Fig 7.

*Whittleseya Dawsoniana*, on the other hand, is by far most closely bound to *W. elegans*, from the Sharon coal (Upper Pottsville) of Ohio, though its proportionately broader ribs and less

<sup>1</sup> Near Fayetteville, Arkansas, in the "coal bearing shale," a formation representing a part of the Upper Pottsville, not far from the Sharon coal, in the Appalachian trough. The species is also present in the Breathitt formation of Kentucky, and the Upper Lykens division of the Pottsville in the Pennsylvania Anthracite region.