

vascular bands become more distinct and separate as they approach the teeth. In the middle of the leaf they are often more diffuse, though they are generally recognizable down to near their points of origin.

The normal aspect of *Whittleseya desiderata* is shown in Pl. VII, Fig. 1, an enlargement of whose vascular bands is presented in Fig. 1a. In this example the origin of the bands is easily traceable. The original of Fig. 2 is slightly warped or deformed in the matrix, which gives the apex an unduly contracted form. It is notable, however, that in this specimen, as is often the case in *W. undulata* and *W. Campbelli*, the bands on the extreme borders are slightly infolded near the apex, so that one or two of the teeth at each corner are sometimes overlapped and slightly inward inclined. In this specimen is also indicated a trace of a petiole, which would appear to be filamentose, as in *W. microphylla* Lx. *Whittleseya desiderata* is distinguished from *W. Dawsoniana* by its proportionately smaller and more elongated form, and especially by the narrow and more numerous vascular bands. The latter, by their number and proximity, suggest *W. microphylla*, but they are neither so dense nor so far blended as in the species last named. In *W. microphylla*,¹ although the dimensions are very similar, the bands are often difficult of distinction, while the distal margin appears more or less obscurely crenulate. One of the specimens, from West Bay Shore, Parrsboro', Nova Scotia, collected by Dr. Ami in 1899, is somewhat narrower than the two examples figured, though belonging to the same species. Another example, from Harrington River, Station A5 of Dr. Ami's collections, presents, apparently as the result of lateral deformation, a somewhat cuneate form strikingly similar to that of *Whittleseya microphylla*, with which it agrees in size. The same shale fragment contains a normal example to which a part of the petiole is still attached.

Localities.—Harrington River beds, Harrington River, Colchester Co., N. S., Stations A5 and B5; collected by Dr. Ami, 1898. Also on the Harrington River in Cumberland Co., N. S., Station A7; collected by Dr. Ami in 1898. West Bay Shore, Parrsboro, Cumberland Co., N. S.; collected by Dr. Ami in 1899.

The specimens are in the collections of the Geological Survey of Canada.

¹ Pl. vii, Fig. 7.