

1

Note on Fossil Plants from the  
Carboniferous of Newfoundland.

1. Dadoxylon materialium? This is a specimen of Calcareous wood, which is interesting from the circumstance that, while it presents a coarse crystalline fracture, its structure is preserved, though not in a very perfect condition. It obviously belongs to the genus Dadoxylon (Araucarioxylon) and is not distinguishable from the species above named, found in the Coal formation of Nova Scotia.

2. Lepidodendron Murrayanum, n.s. This species is represented by a portion of a stem or large branch with well-preserved leaf-scars and by a portion of a branch with leaves. The former has apparently been about six inches in diameter the latter about one inch.

Stem. This bears elongated, prominent, contiguous leaf-bases confluent vertically, so as to appear like ribs alternately contracting and expanding. Length of leaf-bases 3 Centimetres; breadth in middle about 8. M.M.

Leaf scars prominent at the lower edge, central on the bases, elongated rhombic, but rounded at the edges. Vascular scar with a central dot, having a semi-circular ridge below it. Whole surface obscurely striated longitudinally. Central part of leaf-bases below the scars marked with transverse ridges. The scars are so arranged as to be in nearly horizontal lines.

Leafy branch — In this the leaf-bases are comparatively short; being in length 8 m.m. and breadth 4 m.m. Leaf-scars rhombic, with rounded ends, and three small vascular marks. Leaves 2 m.m. broad, and three inches or more in length, with a distinct midrib. <sup>Structure</sup> An impression of a longitudinally striated axis, about one inch wide, occurs in the stem, and the leaves show <sup>in the</sup> midrib a bundle of scalariform vessels surrounded with a sheath of fibres.

This species is strictly a Lepidodendron, but it most resembles species which have been described, from fragments of stems, as Sigillariae; as for example — S. angulata

and S. undulata of Saucens, and S. aspera  
and S. coarctata of Goldenberg. These species,  
of better known, might be referred to  
Lepidodendron.

The following species occur in  
a black Arenaceous shale,

Lepidodendron, sp. Fragments of a  
species allied to S. Veltheimianum or  
S. corrugatum, but too imperfect for  
description. The specimens show the  
portions of slender branches, with elongated  
leaf-bases and short leaves.

Lepidostrobos, sp. An elongated  
strobile, which may have belonged  
to some species of Lepidodendron.

Sphenopteris, sp. This is represented  
by a number of fragments of fronds all  
obscurely defined. They belong to a species  
which seems near to S. hymenophylloides  
Bengt., but with broader pinnules

and very strong folding veins. It does not appear identical with any species known to me, but I hesitate to describe it from so imperfect material.

The last three species have the aspect of some *Carbonifera* films, but I could not affirm this from so few and imperfect specimens.

*[Faint handwritten notes or scribbles]*

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not appear identical with any species  
known to me, but I hesitate to describe  
it from so imperfect material.  
The last three species have  
the part of lower carboniferous fauna  
which would not appear to be from the  
same period of time.

New Zealand  
Scientific  
Collection  
1847

Lepidodendron Murrayanum, N.S.

This species is represented in Mr Murray's collection by a stem or large branch with well-preserved leaf-scars, and by a portion of a branch with leaves. The former has apparently been about six inches in diameter, the latter about one inch.

Stem. This bears elongated, prominent, contiguous leaf-bases, confluent vertically, so as to appear like ribs alternately contracting and expanding. Length of leaf-bases 3 centimetres, breadth at middle 8 millimetres. Leaf-scars prominent at the lower edge, elongated rhombic, but rounded at the <sup>angles</sup> ~~edges~~, placed centrally on the leaf-bases. Vascular scar having a central dot with a semicircular ridge enclosing it at the lower side. Whole surface obscurely striated vertically. Central part of leaf-bases below the scars marked with transverse ridges. The leaf-scars being more distant vertically than horizontally, appear to form vertical rows.

Leafy branch. In this the leaf-bases are comparatively short. Length 8 mm. Breadth 4 mm. Leaf-scars rhombic with rounded ends, and three small vascular scars. Leaves 2 mm broad and at least three inches long, linear, with a distinct midrib.

Structure.— An impression of a longitudinally striated axis about one inch wide, occurs in the stem, which is filled with sandstone. The leaves show in the midrib a bundle of pyritised vessels of scalariform structure, and enclosed in a sheath of long fibres.

Plants of this type have often been described as Sigillariae; but the present is a true Lepidodendron, approaching however to the

type of *Gelutigena* in the leaf scars of the  
old stems. Such so-called Sigillariae as *S. angulata*  
*lata* and *S. undulata* of Saunders, and *S. aspera* and  
*S. cuneolata* of Goldenberg, described apparently from  
fragments of bark, appear to be of the same  
type and are probably *Lepidodendrea*.

This species is from the ~~East~~ Carboniferous  
of St. George's Bay, Newfoundland. It has not yet  
been recognized in Nova Scotia.

### Dadoxylon Materiarium, Dawson

I would refer to this species a specimen  
of calified wood in Mr Murray's collection which  
is especially interesting as showing the preservation  
of the tissues in considerable perfection, along with  
a very coarse crystallization of the caliche,  
showing that the calcite filling the cells of the  
wood may become perfectly crystalline without  
destroying the tissue.

This specimen is also from the coal-  
field of St. George's Bay.

### Chert - Cadroy River.

In collections made some years ago by Mr Robert  
Bell at this place, are fragments of black chert, some  
chips of which I examined in the hope of finding  
microscopic animal organisms. I was surprised to  
find them filled with vegetable debris; and two  
slices which I have had made, show that this