

FLORA IN THE ROOF OF THE UPPER FREEPORT
COAL AT CALLAHAN'S MINE,
TEEGARDEN, OHIO.

WILLARD BERRY.

Last spring several graduate students at Ohio State University collected several good specimens of plant fossils from the roof of Callahan's Mine, one mile north-west of Teegarden, Columbiana County, Ohio. These fossils were turned over to me and at my request the students revisited the Mine and in November one of the men, Mr. Sturgen, collected over 500 pounds of material. It is from this collection that the determinations have been made. As might be expected this method of collecting made for much duplication of forms but is compensated for in the abundance of material.

The coal mined at Callahan's Mine is the Upper Freeport which is at the top of the Allegheny series in the Upper Carboniferous or Pennsylvanian of the Paleozoic. The roof shale and the matrix of the impressions is a gray, slightly sandy, poorly bedded clay shale. There are small slickened blocks in some parts. In some instances there is considerable evidence of movement in the shale before complete compacting if we are to accept the irregular bending and curling of the plants. This curling could not be interpreted as curling due to dried material being inundated as there is no evidence of land conditions in the sediments; they appear to be water laid deposits. Also what bedding there is, is bent with the fossils. This condition was probably caused by eddies, or scour, or even something like tide riffs.

The flora as studied does not lend itself to correlation with other Upper Freeport horizons due to the lack of floral lists of this horizon. I expect to continue the study of this horizon and in time make a complete report on the Upper Freeport plants for the entire area in Ohio, in which report I will include illustrations of the plants.

In all there are at least 26 species, all previously reported from the Allegheny, comprising 7 genera and 5 families.

*Read before the Ohio Academy of Science, April 14, 1933.

The tentative list is as follows:

Pteridophyta.

Ficales.

Triphyllopteridae.

Pseudopecopteris (?) cf. *obtusiloba* (Brongn.). Lx. Rare.

Pecopterideae.

Pecopteris dentata Brongn. Common.

P. pseudovestita D. White. Common.

P. vestita Lx. (not previously reported from
the upper Allegheny) Common.

P. arborenszens Brongn. Fairly common.

Megalopterideae.

Neuropteris cf. *trichomanoides* Brongn. Rare.

N. fimbriata Lx. Rare.

N. auriculata Brongn. Fairly common.

N. inflata Lx. Fairly common.

N. Collinsii Lx. Fairly common.

N. Scheuchzeri Hoffm. (*N. hirsuta* Lx.), most abundant fossil.

N. Rogersi Lx. Fairly common.

N. sp. A. Common.

N. sp. B. Fairly common.

Sphenophyllates.

Sphenophylleae.

Sphenophyllum cuneifolium (Stb.) Zeill. Rare.

S. majus Brongn. Rare.

Lycopodiales.

Lepidodendreae.

Foliage.

Lepidodendron Brittsii Lx. Rare.

L. lanceolatum Lx. Rare.

L. rigens Lx. Not rare.

(Probably more abundant as small fragments.)

Stems.

L. sp. A. Rare.

L. sp. B. Rare.

Lepidostrobos variabilis L. & H.

(may represent several sp.) Not rare.

Lepidophyllum lanceolatum Brongn. Abundant.

L. majus Brongn. Rare.

L. ovatifolius Lx. Common.

L. sp. Rare.