

THE FOSSIL *CONOSTICHUS*

WILBER STOUT

Route 3, Rock Mill, Lancaster, Ohio

Conostichus is commonly associated with the fossil plant *Asterophycus*. The common horizon for their occurrence is in the shales between the Sciotoville clay and the Quakertown coal in the Pottsville series of the Pennsylvanian system.

The general section is about as follows:

	ft.	in.
Coal, <i>Quakertown</i>	1	8
Clay, impure.....	2	0
Shale, gray to dark, bearing <i>Conostichus</i>	33	0
Coal, impure <i>Anthony</i> , locally bearing <i>Lingula</i>		4
Clay, plastic to flint, <i>Sciotoville</i>	4	0

Some collecting places are as follows:

- (1) Old clay mine on Daum hill also Nunn hill, Section 33, Harrison Township, Scioto County
- (2) Land of Dr. Keyes in Section 28, Harrison Township
- (3) Also near the Niner Hill and west of this on Woods Ridge
- (4) In the cut of the Baltimore and Southwestern Railroad near Gephart, Section 30 and 29. Bloom Township, Scioto County
- (5) On point just north of the plant of the Buckeye Fire Brick Company, Scioto Furnace, southwest Section 21, Bloom Township
- (6) This horizon in Harrison and Bloom townships generally yields some fossil *Conostichus*.

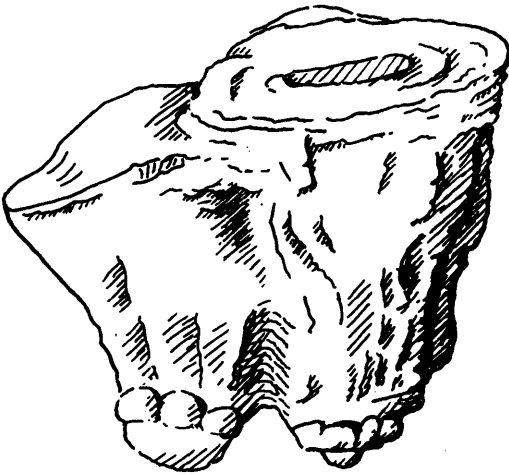
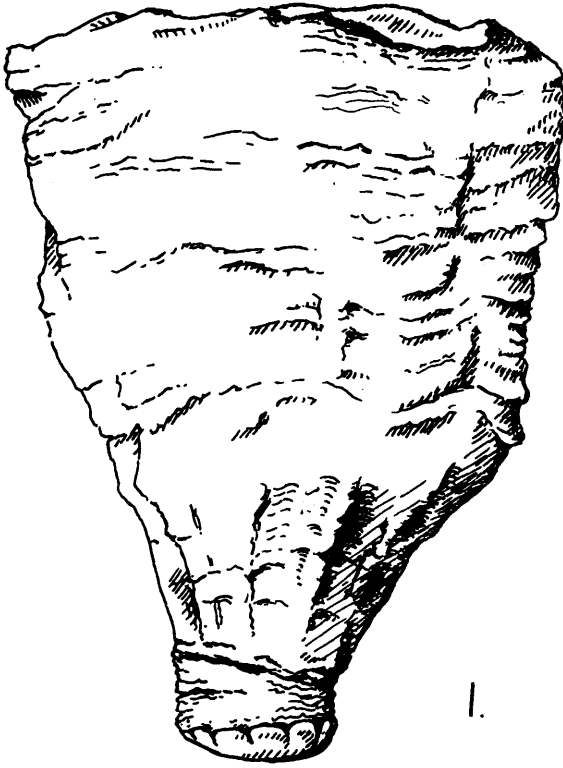
At the Daum mine the strata above the Sciotoville clay are siliceous shale and bear both *Conostichus* and *Asterophycus*.

The Olive Hill, Kentucky region also bears *Conostichus*. Such fossils are not abundant.

On the front hills west of Sciotoville some of the shale above the Sciotoville clay bears sufficient manganese oxide or carbonate to give brick made from it a light brown color. Manganese minerals are a common fresh water swamp deposit.

Southwest of Scioto Furnace, about one mile from the railroad cut near Gephart, a few inches of bony shale directly above the Sciotoville clay contain *Lingula carbonia* as determined by Miss Helen Morningstar. (Bull. 25: Pottsville Fauna of Ohio, pages 21-22.) Lingulas are found in fresh, brackish and marine waters. The underlying Anthony coal is of fresh water origin, hence the shales in the interval between the Sciotoville clay and Quakertown coal may not be strictly marine, but of brackish water origin.

To the writer the *Conostichus* of the Sciotoville and Scioto Furnace areas were the most abundant and were the largest and most definitely marked of any observed throughout the entire coal fields in Ohio.



FIGURES 1 and 2. O. S. U. M. No. 10872a and 10872b, from the Pottsville series near the No. 2 Coal horizon, Sciotoville, Ohio. X .75.

Although occurring in shale the *Conostichus* fossils are composed of a fine grained sandstone. Also the same is generally true of the fossil wood—some showing cell structure found elsewhere in the coal formations, particularly in the Conemaugh series. Apparently as the vegetable matter decayed it was replaced by gelatinous silica which then crystallized.

In collecting *Conostichus* for Dr. David White of the United States Geological Survey I found a few specimens in place in the shale in the Gephart cut and at the clay mines at the Daum and Nunn hills locations. In all cases the star in the tip of the cone was down. Also there was no evidence of roots or other markings from the lower part of the cone but there were scaly layers of sandstone from the upper part. Two stars on same body were not uncommon. (See fig. 2). See Dr. David White's collection and the collection in the Geological Museum, The Ohio State University.

My conclusion is that *Conostichus* was a plant of some type growing or floating in fresh or brackish water sea.

REFERENCES

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Lesquereux, L. 1876. Species of fossil marine plants from the Coal measures. Indiana Geological Survey, 7th Ann. Rept. p. 141.
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