

## RECENT STUDIES OF THE MORPHOLOGY OF PLANTS FROM THE PENNSYLVANIAN OF ILLINOIS

BY

A. C. NOÉ

*University of Chicago and Illinois State Geological Survey*

Recent investigations by Ellys Butler,<sup>1</sup> Inez M. Clark,<sup>1</sup> Fredda D. Reed,<sup>1</sup> A. C. Noé,<sup>1</sup> J. H. Hoskins,<sup>2</sup> and Harriette Krick,<sup>3</sup> have dealt with certain structures of Upper Carboniferous plants as preserved in Illinois coal balls.

Such are: (1) leaves of Calamites, Lepidodendron, Sigillaria, and Cordaites; (2) stems of Sphenophyllales, Lycopodiales, and Filicales; (3) cones of Lepidodendron; and (4) seeds of Cycadofilicales and Lycopodiales.

The information obtained from coal balls and fossil plant impressions from Illinois was recently utilized in the reconstruction of a forest as it may have existed in northern Illinois during Upper Carboniferous times. This reconstruction in natural size which was made under the supervision of Dr. Dahlgren may be seen at the north end of Graham Hall in the Field Museum of Natural History in Chicago. It contains the following species:

**EQUISETALES:**

Calamites suckowi Brongniart  
Annularia stellata (Schlotheim) Ward  
Annularia radiata (Brongniart) Sternberg

**SPHENOPHYLLALES:**

Sphenophyllum emarginatum (Brongniart) Koenig

**LYCOPODIALES:**

Lepidodendron clypeatum Lesquereux  
Lepidodendron obovatum Sternberg  
Lepidodendron sternbergii Brongniart  
Lepidostrobus ovatifolius Lesquereux  
Sigillaria saulii Brongniart  
Sigillaria scutellata Brongniart  
Sigillaria reniformis Brongniart  
Lepidophlois acadianus Dawson  
Stigmara ficoides (Sternb.) Brongniart

**FILICALES:**

Psaronius stem  
Megaphyton stem

**PTERIDOSPERMS:**

Neuropteris heterophylla Brongniart  
Neuropteris decipiens Lesquereux  
Cyclopteris leaves  
Medullosa stem  
Trigonocarpus seed  
Lyginoperis oldhamia Binney  
Neuropteris Hoeninghausi Brongniart  
Lagenostoma ovoides Williamson  
Mariopteris muricata (Schlotheim) Zeiller

**GYMNOSPERMS:**

Cordaites borassifolius (Sternberg) Unger

<sup>1</sup> To be published in a monograph of the Illinois State Geological Survey.

<sup>2</sup> Contribution to the coal measure flora of Illinois. *American Midland Naturalist* 12, pp. 154-163. 1930.

Structure and classification of certain cycadofillicnean roots from the McLeansboro formation of Illinois. *Ibid.*, pp. 533-551. 1931.

<sup>3</sup> Structure of seedlike fructifications found in coal balls from Harrisburg, Illinois. *Bot. Gaz.* 93, pp. 151-172. 1932.