

# Field Trip to the Ambridge Plant Fossil Site

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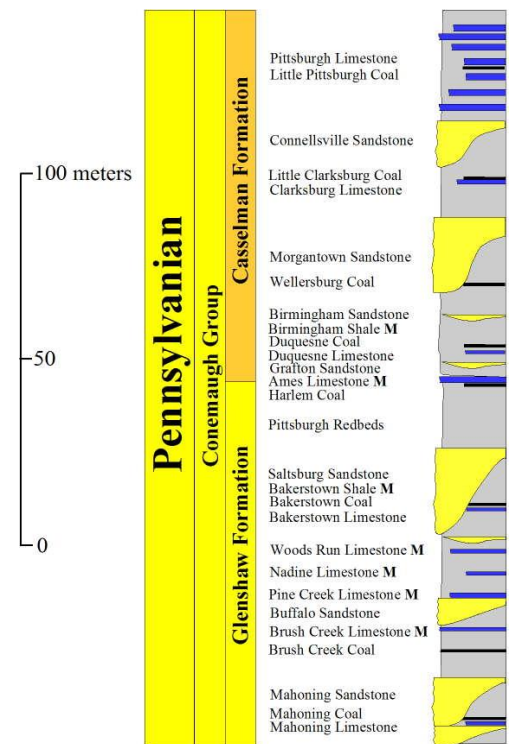
One of the best fossil collecting locations in the Pittsburgh area is a large road outcrop near the Ohio River on Rt. 51. This road cut contains sandstone, shales, mudstones, and limestones from the lower Glenshaw formation of the Conemaugh Group.

## Western Pennsylvania 300 Million Years Ago

The Glenshaw formation was laid down around 300 million years ago in the Carboniferous time period (Upper Pennsylvanian). During the Carboniferous, Western Pennsylvania, which sat just below the equator, was a composed of large lowland flood deltas. Rivers from the newly formed Appalachian Mountains to the east drained through these plains and into the ocean just to the west. These flood plains were covered by dense “coal forests.”

Marine transgression and regression cycles dominated the Carboniferous time period. Oceans would often flood the coal forests and bury them in sediments. At other times, the shallow oceans would recede leaving the remains of buried marine animals.

This resulted in many cyclical fossil bearing layers, alternating from marine fossils to plant fossils. The Ambridge site exposes some of these cycles from the lower Glenshaw formation. Particular fossil rich sections in this formation include plant fossils from the Mahoning shales and marine fossils from mudstones of the Brush creek marine zones.



(Stratigraphic column from the University of Pittsburgh – Department of Geology and Planetary Sciences)

## Fossil Collecting / Safety

**TOOLS:** You will be splitting thin shale layers from large fallen rocks. Tools needed are a rock hammer, thin chisels, a pry bar, and safety glasses.

**FALLING ROCK:** Most of this road cut is very tall and dangerous. Only fossil collect along the shorter section of the cut (the first ½ mile). Also, it is advised not to approach the cliff, but instead, search for fossils on the many large fallen blocks along the base of the talus slope.

**SNAKES:** As in all rocky areas, snakes are known be around. It is suggested to use a hammer to lift shale from the ground, not your hands. Also, while walking to a new rock area, bang on your hammer and chisel a few times to alert any snakes before climbing onto the rock.



For more information on this fossil location, go to: [www.fossilguy.com/sites/ambridge](http://www.fossilguy.com/sites/ambridge) - or scan the QR code

# COMMON FOSSIL IDENTIFICATION FROM THE GLENSHAW FORMATION



## PLANT FOSSILS (Mahoning Shale and Sandstones – Glenshaw Formation)



**Neuropteris ovata**  
Tree Fern



**Macroneuropteris**  
**scheuchzeri**  
Tree Fern



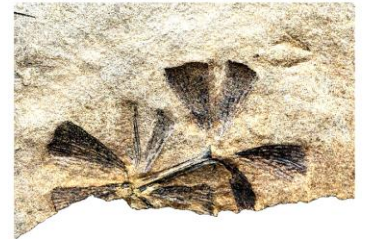
**Lepidodendron**  
Scale Tree  
Leaves



**Pecopteris sp.**  
Tree Fern



**Calamites**  
Horsetail Stem



**Annularia**  
Calamites leaf cluster

## MARINE FOSSILS (Brush Creek Marine Zones – Glenshaw Formation)



**Gastropods**  
**Shansiella and Worthenia sp.**



**Nautiloid**  
**Michelinoceras sp.**



**Horn Coral**  
**Heterophrentis sp.**



**Cephalopod**  
**gen. et sp. int.**