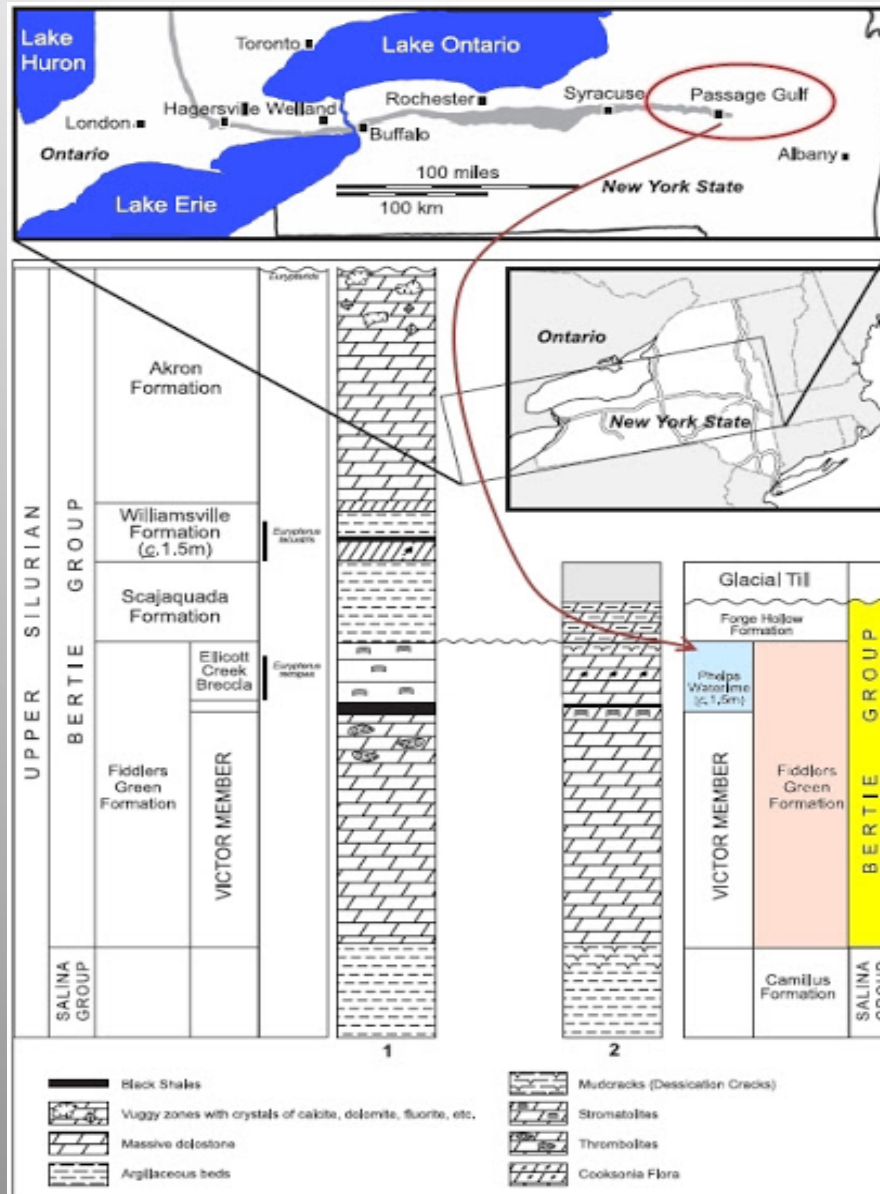


- **A PRIDOLIAN (OR EARLIER) SILURIAN  
TERRESTRIAL PLANT COMMUNITY IN THE  
BERTIE GROUP LAGERSTATTE OF EASTERN  
NEW YORK**
- Scott McKenzie
- Geology Department, Mercyhurst University
- [smckenzie@mercyhurst.edu](mailto:smckenzie@mercyhurst.edu)

# Map of the Bertie Group



# The Lang Quarry



# *Eurypterus*

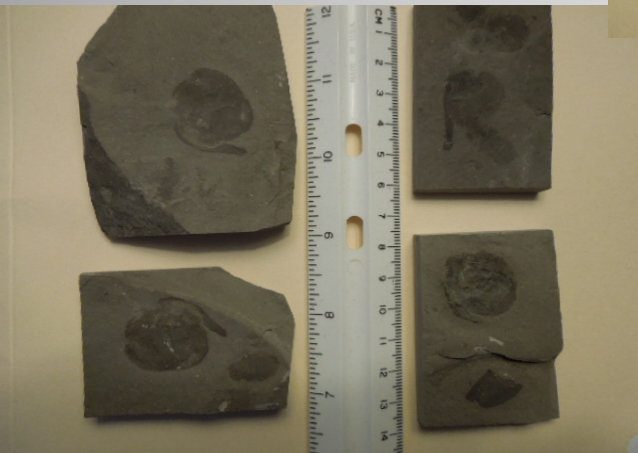




# *Acutiramis*







# The Bertie Lagerstatte

## **Low frequency**

Finding fossils in the quarry is infrequent

## **High diversity**

many taxa present in very low numbers

Morphology is well preserved

Structure is mostly absent

Most non eurypterids are undescribed

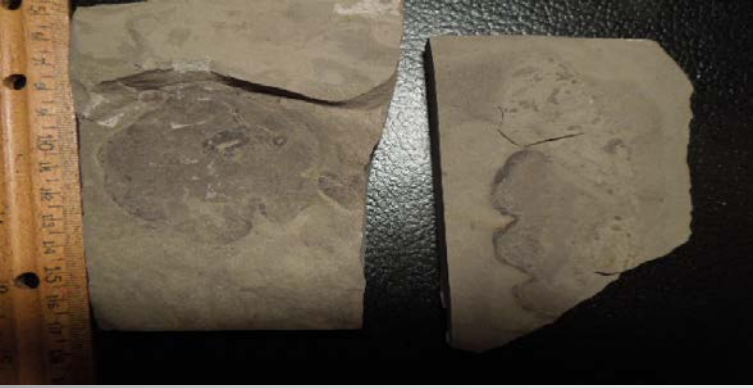


# Stromatolite

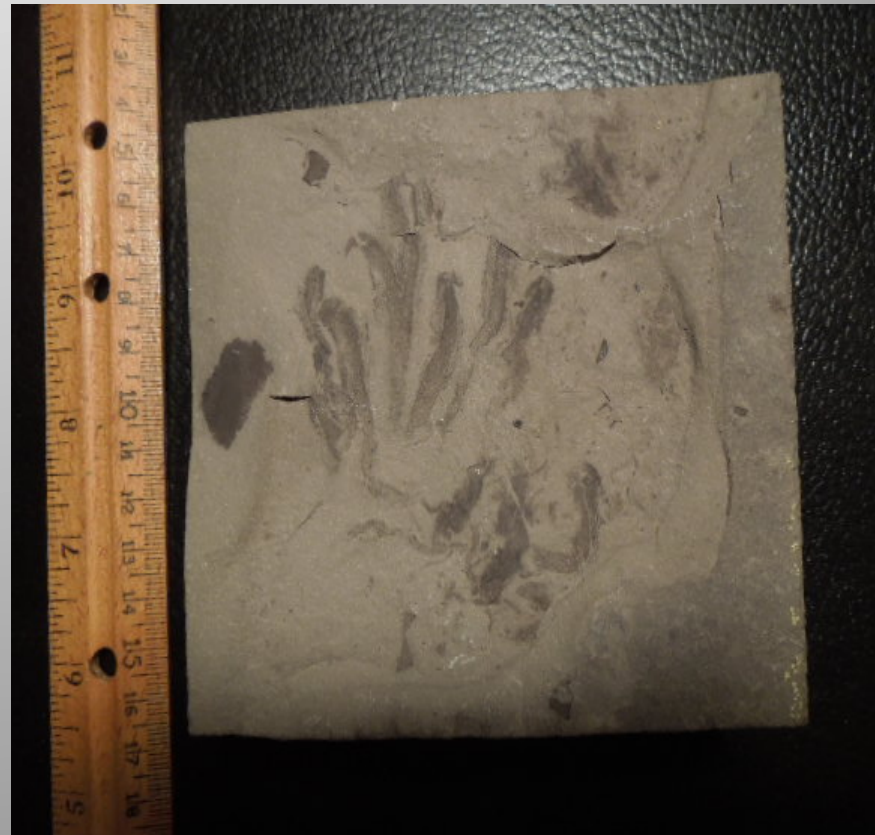
Litchfield, NY







Algae?



**cf. *Rhizomorpha***  
*identification by the Field Museum*





# Octaradial charophyte

## “Ezekiel’s Wheel”(Buffalo area)





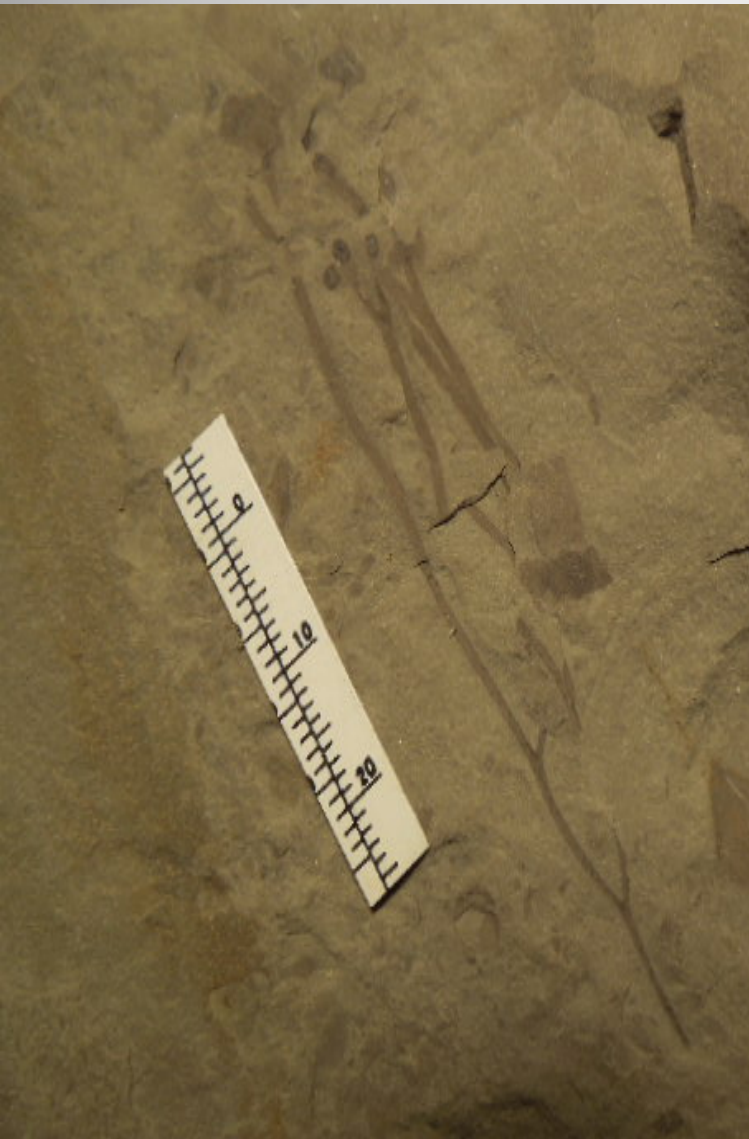
# *Prototaxites* and similar genera (fungus)





# Fertile “Cooksonia”

counterpart of the one at right is at the Royal Ontario Museum



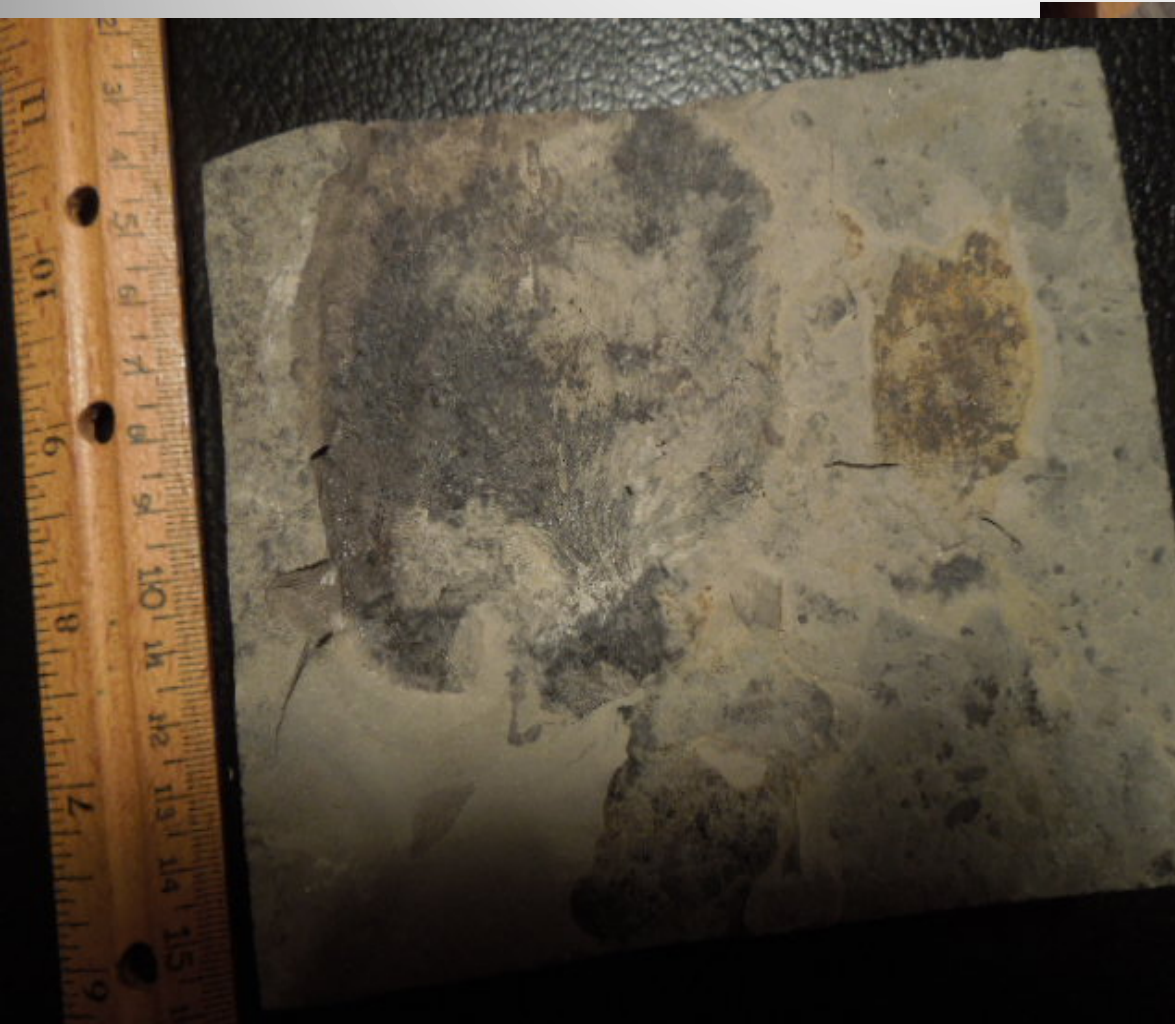
# NOTE:

The rarity of plant reproductive structures

- The near total absence of root structures on the land plants
- The lack of general signs of transport
- The paucity of early growth stages
- The organisms did not live where we find them and were transported gently from a variety of nearby environments



# Liverworts?



# “Liverwort”



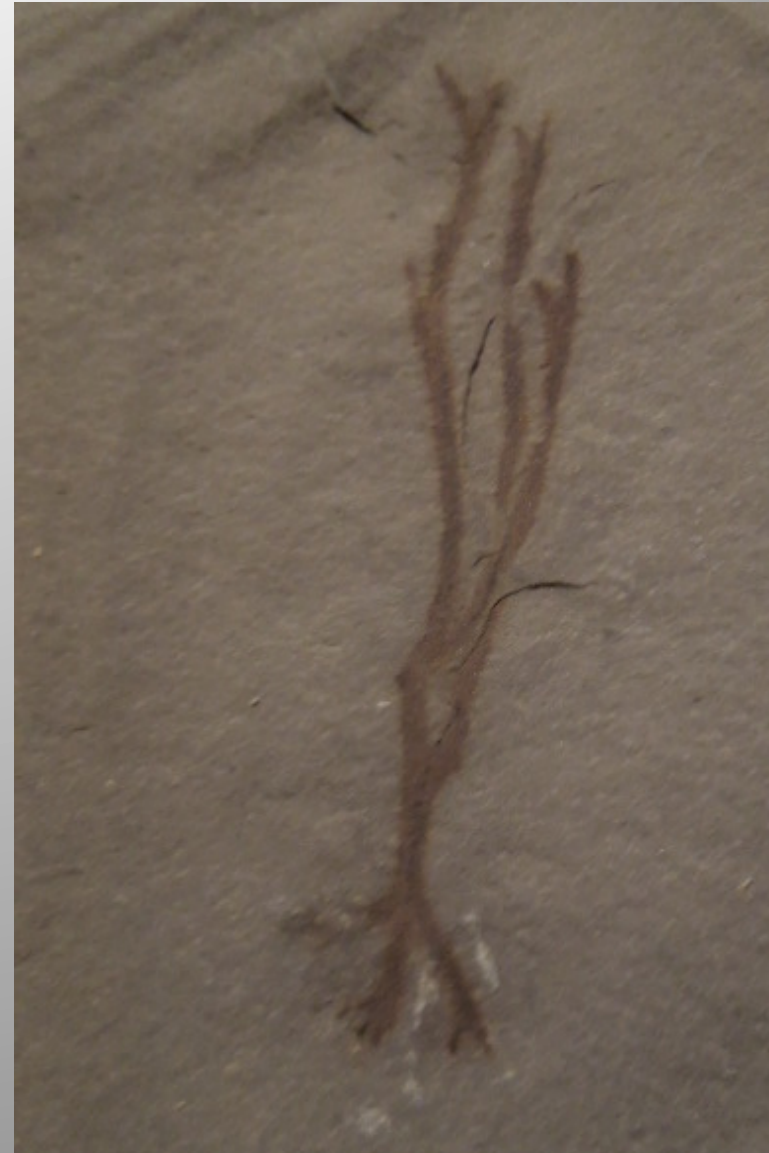


# *Aff. Zosterophyllum*





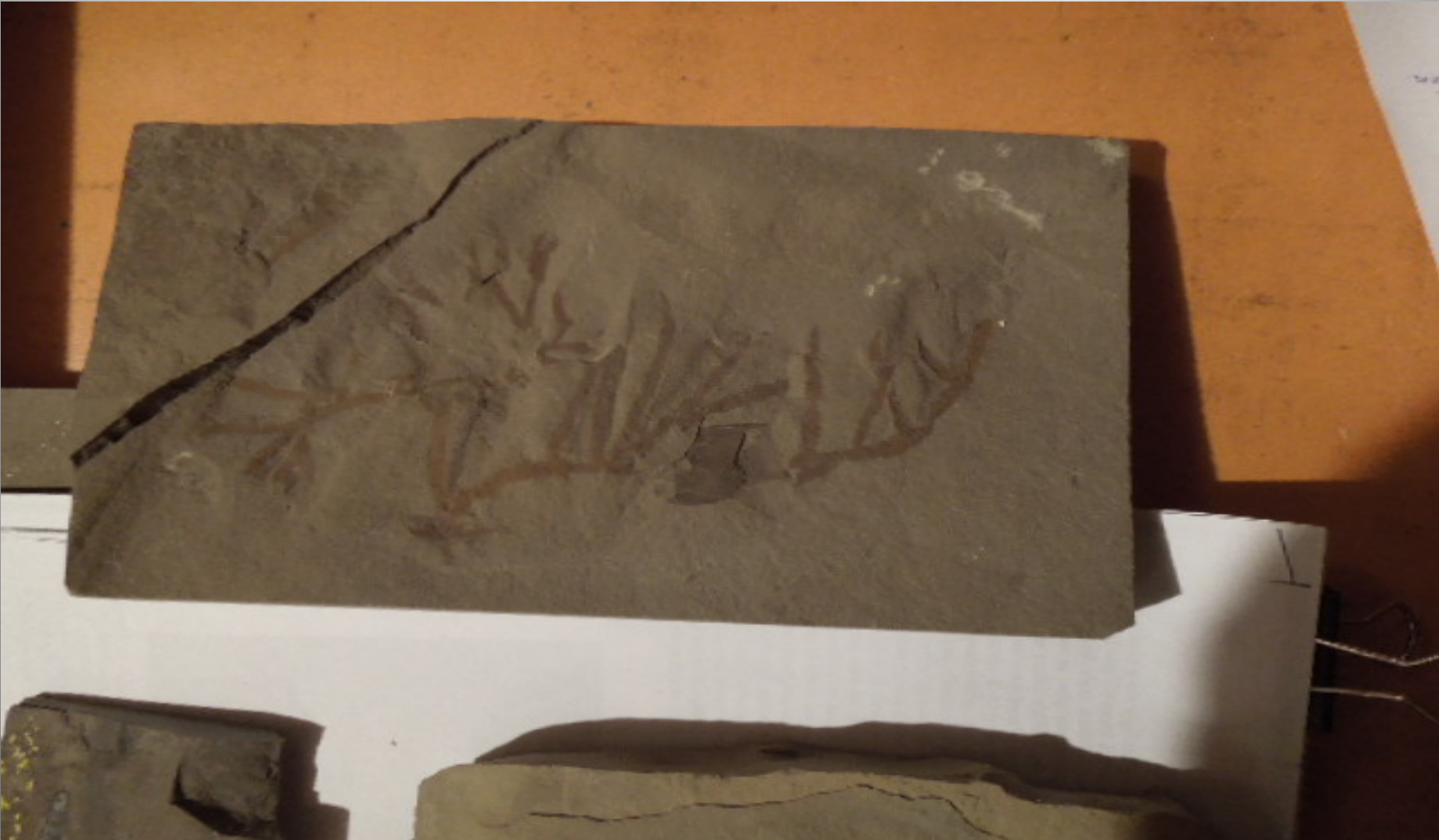
# Moss- like plant with enations



# Moss?



# Plant with rhizome





# “Protolignophyte”

an early tree relative?



# The Silurian,

not the Devonian seems to hold the earliest preserved terrestrial plant communities

- The fossil plants are found in the Bertie Group but were transported from nearby areas
- There are animal fossils associated with the plants that may indicate a more advanced terrestrial plant – animal ecosystem than we expect for the age of the Bertie Group
- We must look at even earlier deposits for the beginnings of land plants!



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- Patrick Nolan
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University Archaeological Institute, Geology  
Department