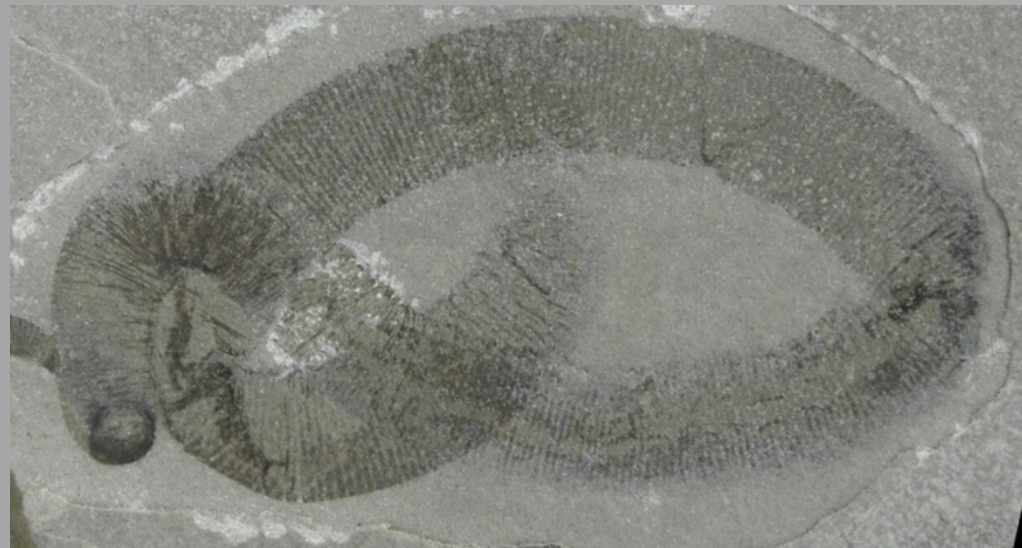


## Why is the Waukesha biota (specifically this Lagerstätte) considered important?

- The exceptional preservation of the fossils at this site makes it very valuable in understanding the characteristics of different organisms of the early Silurian.
- It's also one of the best-preserved sites from the Silurian.
- Had signs of hydrodynamic trapping
- bedding patterns show that tidal activity was also present

### Notable Findings

***Parioscorpio venator***: Initially thought to be the oldest scorpion; now considered an enigmatic arthropod with uncertain affinities Fossil findings of the ***P. venator***

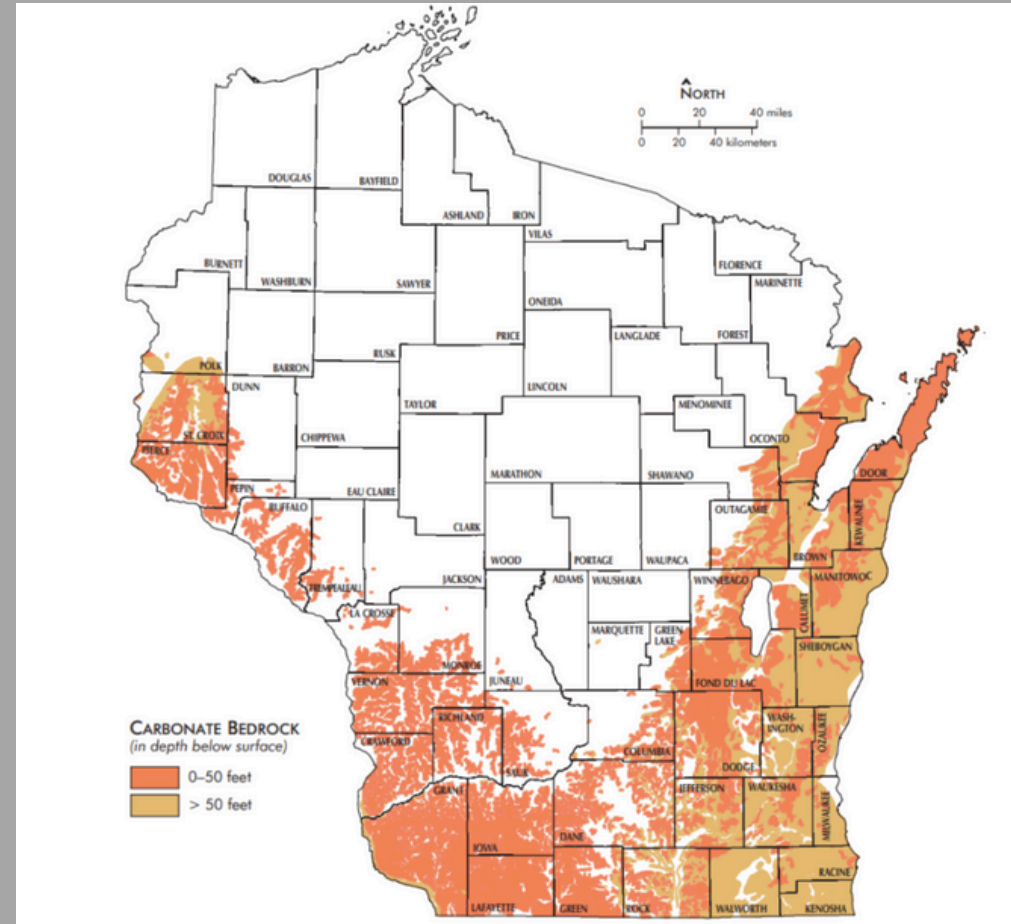


<https://www.cambridge.org/core/blog/2023/11/29/earliest-437-million-year-old-putative-leech-is-not-what-it-seems/>

## A Lagerstätte in the Brandon Bridge Formation, Silurian Period, of Wisconsin

GEOL204 Section: 0101

Gary Wright, Alex Yoder, Tomo Motta, Will Dickerson



<https://wgns.wisc.edu/catalog/dataset/000905>



<https://onlinelibrary.wiley.com/doi/10.1111/gto.12447>



<https://hakaimagazine.com/news/for-a-peek-inside-wisconsins-watery-past-thank-the-microbes/>

### How the Hydrodynamic Trap helped Preserve Soft-Bodied Organisms

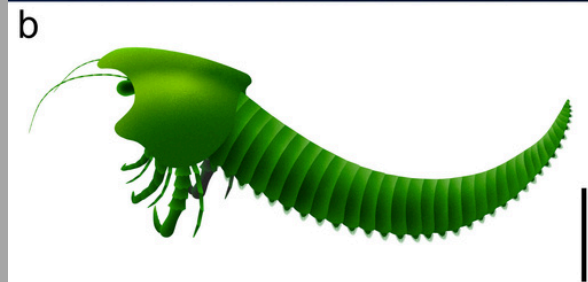
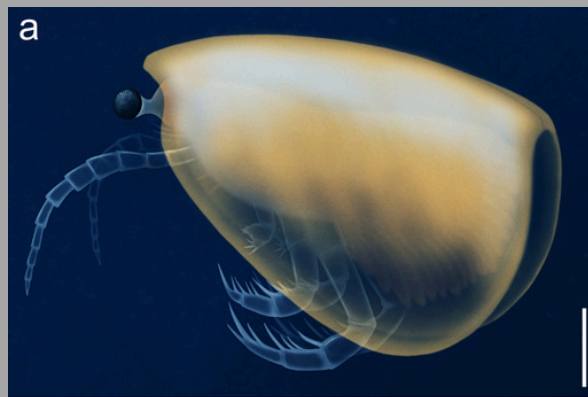
- Tiny Organisms were quickly buried
- The burial protected the soft tissues
- The quick sedimentation allowed for the preservation of delicate outlines that are not available usually such as limbs, gills, and etc.
- This allowed for rare fossilizations of soft bodied arthropods like jelly fish and algae.

### Diversity Within the Waukesha Biota

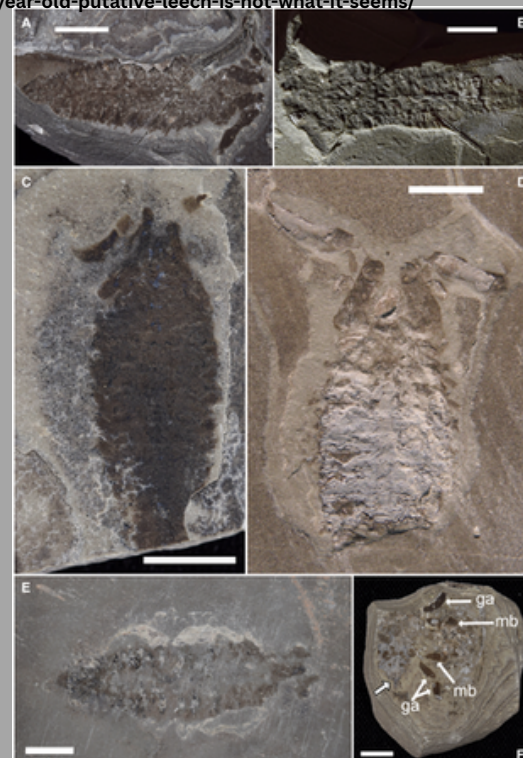
- Trilobites - common arthropod of Paleozoic
- *Parioscorpio venator* - scorpion-like arthropod
- Phyllocarids - early shrimp-like crustaceans
- Lobopodians - worm-like animals with short legs
- Ostracodes - small bivalved crustaceans
- *Panderodus* - conodont animals, extinct group of eel-like vertebrates
- Soft-bodied organisms (rare) - jellyfish-like organisms & algae
- & Lots More!

The biota clearly has a very rare blend of early Silurian species which show important evolutionary transitions

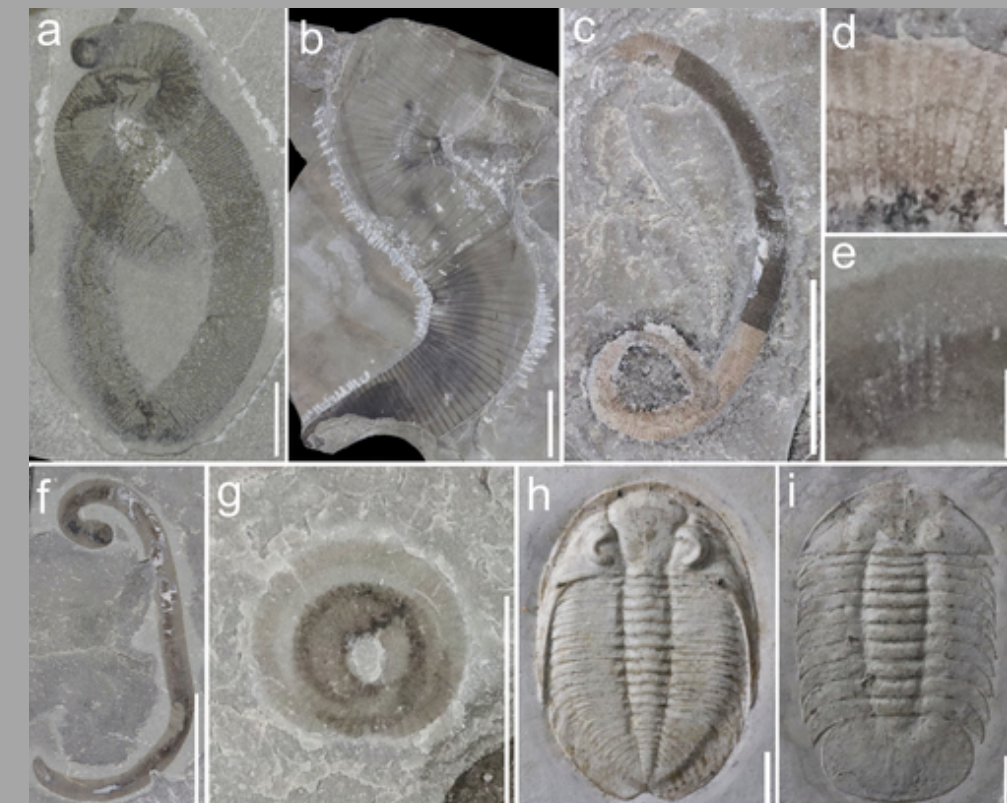
### Thylacares (A) and Acheronauta (B)



<https://onlinelibrary.wiley.com/doi/10.1111/gto.12447>



<https://onlinelibrary.wiley.com/doi/10.1111/pala.12534>



<https://onlinelibrary.wiley.com/doi/10.1111/gto.12447>