GEOL 204 The Fossil Record

Spring 2020 Section 0103

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Carboniferous Rainforest Collapse

Figure 1: This is how a Carboniferous Rainforest might have looked before the collapse. The picture shows plants such as ferns and fern trees, which are an extant species that can still be found today, however this picture shows a more lush, vibrant rainforest. .

"Carboniferous Rainforest Collapse." *Wikipedia*, Wikimedia Foundation, 4 Apr. 2020, en.wikipedia.org/wiki/Carboniferous_rainforest_collapse.

What was the Carboniferous Rainforest Collapse?

The Carboniferous Rainforest Collapse was a minor extinction that happened 305 Ma (Late Moscovian to early Pennsylvanian). It was originally a rainforest home to many tetrapods and plants. The rainforest was also very good for the production of coal. (Figure 1).

Figure 2: This is a plant fossil that could be found in a coal forest. The fossil shows imprints of fern seeds and leaves, while the forest once was comprised of plant species such as *Lepidodendron.*

"Carboniferous Rainforest Collapse." *Wikipedia*, Wikimedia Foundation, 4 Apr. 2020, en.wikipedia.org/wiki/Carboniferous_rainforest_collapse.

Figure 4: Shown here is the extinct *Arthopleura*, which was an arthopod species once found in the Carboniferous Rainforests. *Arthopleura* is a genus of extinct millipede species.

Qedscience. "Catastrophe! (12) Carboniferous Rainforest Collapse." *QED Science*, 5 Aug. 2015, qedscience.wordpress.com/2015/08/05/catastrophe-12-carboniferous-rainforest-collapse/.

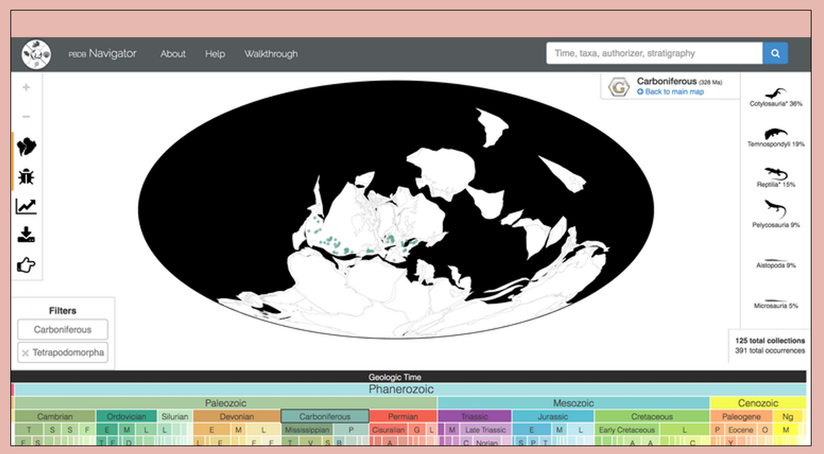

Figure 5: Places that Carboniferous fossils can be found from the Paleozoic Era.

Czaplewski, John J. "PBDB Navigator." *Front Page*, paleobiodb.org/navigator/.

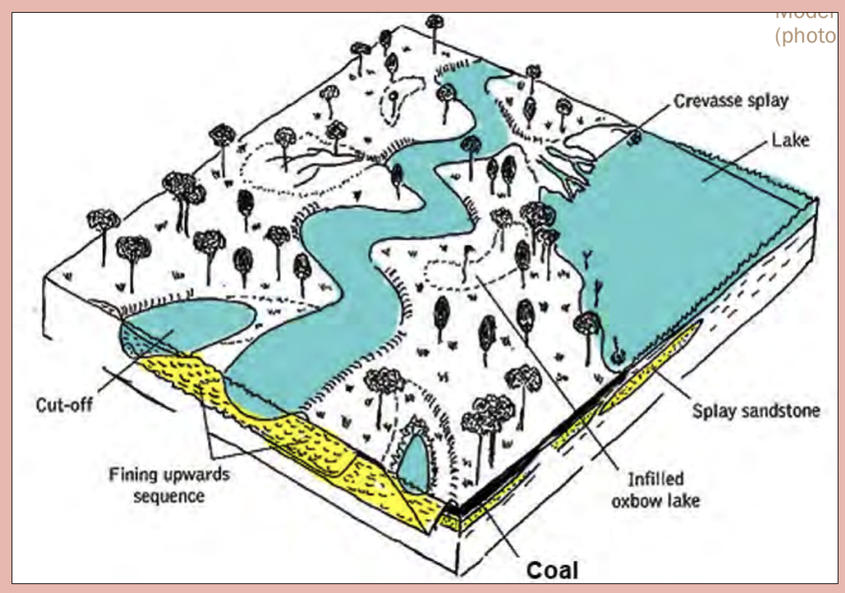

Figure 3: In this figure, it is shown that coal producing swamps reside on lower parts of continents. These swamps are habitats of the early radiation of tetrapods, which are vertebrates that have four limbs.

Sahney, S., Benton, M. J., & Falcon-Lang, H. J. (2010). Rainforest collapse triggered Carboniferous tetrapod diversification in Euramerica. Geology, 38(12), 1079-1082.