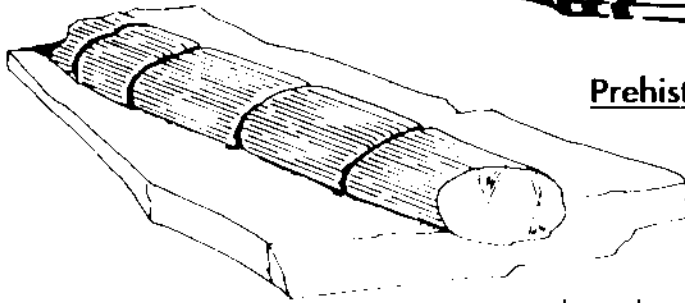
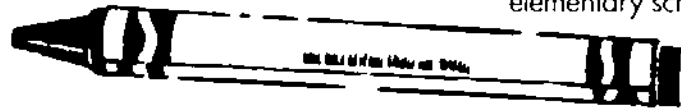




This Fact Sheet is the fourth in a series of five on Fossils of New Brunswick. It is suitable for the elementary school grades.

# Coal Age Creatures

## Life In The Swamps



### Prehistoric Bike Tracks?

Have you ever seen a rock containing something that looks like a wide bicycle tire with treads? Or seen a thick stick made of rock, and covered with many thin lines? If so, then you might have found a plant fossil.

*Calamites* and *Lepidodendron* were tall tree-like plants that lived about 300 million years ago. You can find fossils of these plants in New Brunswick. They both could grow very tall—nearly 25 metres. But in other ways they were different.

### Lepidodendron

*Lepidodendron* lived in moist swamps. It looked a bit like a string mop turned upside down. Its closest modern relatives are club mosses.

In places, the *Lepidodendron* bark was covered with arrow-shaped leaves. When the leaves fell off, a scar remained. The “tread marks” in a fossil *Lepidodendron* are really the remains of those scars.

### Calamites

Some *Calamites* lived in shallow swamps, but most stood by the edges of lakes and rivers. They often formed a thick jungle growth. Their closest relatives today are horsetails and small plants that grow by ponds and roads.

From the side, *Calamites* looked like a huge arrowhead with a thick stem. They had thin ribs running up and down the stem, and thick bands running across it. You can see these lines in the fossil plant.

### When Did They Live?

*Calamites* and *Lepidodendron* lived during a period of time that geologists call the Carboniferous. It lasted from about 280 to 345 million years ago. Another name for the Carboniferous is **The Coal Age**.

Perhaps you know that coal is made of carbon. All the world's coal deposits were formed during the Carboniferous. How do you think the Carboniferous got its name?

### The Coal Age

During the Carboniferous, life in New Brunswick was warm and damp. Oceans kept moving slowly over the land, then falling back again. Over time, New Brunswick became a land filled with swamps. The swamps contained rich soil, perfect for growing plants.

And so plants began to grow. And grow. Some people call the Carboniferous Period, the Age of Plants. As the plants died, they fell to the ground and decayed. Slowly, the ground was covered by material that later turned into rocks.

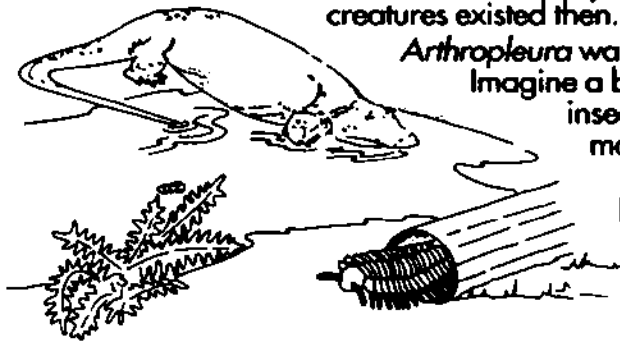
Over millions of years, some plants hardened into coal. Others became fossils. The most common New Brunswick rocks are Carboniferous. That is why we see so much coal and so many plant fossils in the province. In New Brunswick, coal is mined near Grand Lake.

## Meanwhile, In The Forest

Plants were not the only living things during the Carboniferous. Many other creatures existed then. One was called *Arthropleura*.

*Arthropleura* was a gigantic millipede almost one metre in length. Imagine a bug longer than your leg! It was related to our modern insects, spiders and crabs. It looked like a huge flat cigar with many legs.

*Arthropleura* lived on the forest floor or in stumps of trees like *Lepidodendron*. For lunch, it munched on old plants or bark. Giant salamanders also lived during the Coal Age. They probably ate *Arthropleura*.



## Leaving Just A Trace

No one has yet found an *Arthropleura* fossil in New Brunswick. But we know they lived here, because scientists have discovered their traces.

A trace is the mark an animal leaves when it moves. Footprints and dragging tail marks are all traces. If they harden into rock, they are called trace fossils.

About ten years ago, geologists found footprints in rocks near St. Martins just east of Saint John. The footprint trail is 30 centimetres wide and almost five metres long. It looks as though it was made by a creature with lots of legs. Fossil experts believe the trail belongs to a giant millipede—*Arthropleura*.

Of course, the scientists had to give the trail a name. (Scientists love to name things.) They called it *Diplichnites*. That means "a double row of footprints made by a creature with many legs."

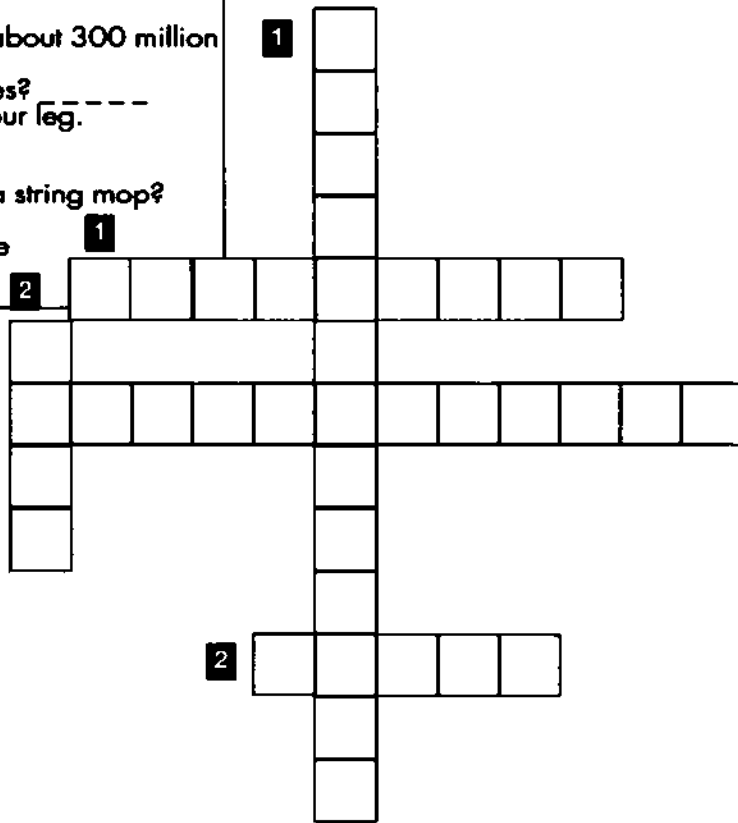
If you want to know what the millipede looked like, see its life-sized model in the New Brunswick Museum. And remember. Next time you walk through mud, you might be making your own trace fossil.

### Across:

- 1). \_\_\_\_\_ were tree-like plants that lived about 300 million years ago.
- 2). What mark does an animal make when it moves?
- 3). \_\_\_\_\_ was a bug longer than your leg.

### Downs:

- 1). Which type of plant fossil looked the most like a string mop?
- 2). Another name for a period of time known as the Carboniferous is The \_\_\_\_\_ Age.



COOPERATION

COOPERATION  
AGREEMENT  
ON MINERAL  
DEVELOPMENT

## Coal Age Creatures Trivia