

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



George Matthew was a man who lived in Saint John about 120 years ago. He loved to collect fossils, especially with his young son, William. William was a good fossil hunter. He and his father later became famous palaeontologists (fossil experts.)

One day in 1876, George and William went for a walk along the cliffs around Saint John. William was only 7 years old. The cliffs were made of a rock called shale. The shale had been formed 500 million years ago in ancient seas.

When they reached the cliffs, William and George started to look for fossils. Suddenly a piece of rock fell away, and William saw a fossil. It was a trilobite!

The amazing thing about this trilobite was its size. Most trilobites are about as big as your thumb. Will's discovery would have reached from the tips of your fingers to your elbow.

## What Were Trilobites?

Trilobites are now extinct. They lived in oceans, and resembled horseshoe crabs. In fact, their closest living relatives may be a shrimp-like creature named cephalocarid.

Trilobites were oval-shaped. They had jointed legs and a hard outer shell. The shell was made of three parts or lobes. There was a raised centre lobe, and two flatter outer parts. That's why they are named tri-lobite, meaning 'three lobes'.

The body also was divided into sections from head to tail. This allowed some trilobites to curl up for protection. As well, trilobites had complex eyes that could receive light from many directions.

We are not sure what trilobites ate. They probably lived off smaller ocean creatures. Perhaps they even ate other trilobites.

## When Did Trilobites Live?

Trilobites first appeared about 590 million years ago. Some swam in the sea or floated on the surface. But most crawled on the ocean bottom and burrowed into mud.

Trilobites were once one of the most common sea creatures. Around 250 million years ago, they suddenly disappeared. We are not certain why.

**Naming Fossils** 

Once Will and George found the huge trilobite, they carefully carried it home. Next, they had to give it a name.

Scientists like to name their discoveries. It makes them easier to remember. Some fossils are called after the place where they were found. Others are named for the person who discovered them.



Answer



Canada

George Matthew decided that Will's trilobite must belong to the group of trilobites called Paradoxides. He also thought the huge fossil was like a queen. Regina means 'the ruling queen'. And so Matthew called the fossil Paradoxides regina—Queen of the Trilobites. He chose the name to honour Queen Victoria of England, who was a good friend of science.

## **Trilobites and Time**

Each day of the week has a different name. We could say 'the day after the day after the day after Sunday'. Or we could just say Wednesday. It's the same with geological time.

Geologists have chosen names to describe certain periods of time. For instance, the word Cambrian means 'between 590 and 505 million years ago'. Silurian means 'between 438 and 408 million years ago'. And so on.

The interesting thing about trilobites and other fossils is that they change over time. For instance, Cambrian trilobites look different than Silurian trilobites. Fossils can help us know the age of rocks in which they are found.

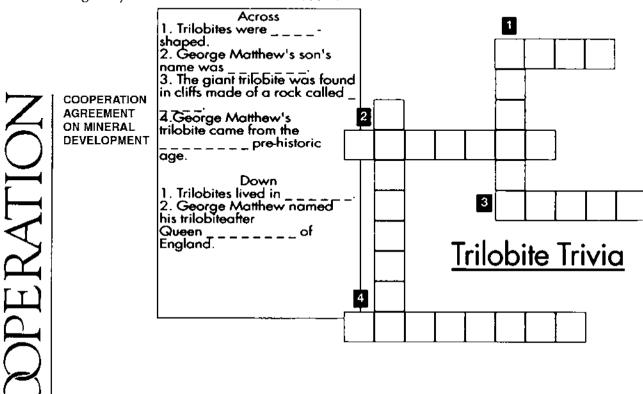
Paradoxides regina was a Cambrian trilobite. Other trilobites also have been found in New Brunswick in much younger rocks.

## Where Is Will's Fossil Now?

Most of the original Paradoxides regina no longer exists. In 1877, the Great Saint John Fire destroyed Matthew's home, including his books, fossil collections and Will's trilobite.

Luckily, George Matthew made a plaster copy of the fossil just before the fire. You can see this copy in the fossil gallery at the New Brunswick Museum.

New Brunswick



Down: 1. Oceans 2. Victoria

Across: 1. Oval 2. William 3. Shale 4. Cambrian