



Fossil hunting at Five Rivers MetroParks

CLUES TO THE MYSTERIES OF OUR PAST

Fossils are the remains of past life. They can include a wide variety of plant parts (leaves, tree trunks and seeds), animal parts (bones and shells) and even footprints. Under special conditions, an imprint left by a plant or animal also may become fossilized.

Fossils are the only clues we have to the nature of life in Montgomery County millions of years ago. Different layers of rock contain different types and ages of fossils and reveal an Ohio startlingly different from the one we live in today.

HOW FOSSILS ARE FORMED

Normally, only plants or animals with hard parts are preserved as fossils. When a plant or animal dies, it must be buried quickly to prevent damage and remain undisturbed during the long process of fossilization. Often, hard parts are replaced by minerals, such as lime, silica or pyrite. Sometimes, this replacement preserves the detail of the original plant or animal. In other cases, just the general form is preserved. Because very special conditions are necessary for fossilization to occur, complete fossils of animals and plants are rare.

WHERE FOSSILS ARE FOUND

Southwest Ohio is littered with fossils. They are in the stone in our driveways and the walls of the Statehouse in Columbus. They are abundant along stream beds and in exposed rock. Today, scientists and collectors from around the world search for remains of life in the rich fossil beds located here.

The fossils found in Five Rivers MetroParks come from the Ordovician Period (450 million years ago) and the Silurian Period (425 million years ago).

MORE INFORMATION ON FOSSILS IN OHIO

FOSSIL COLLECTING IN FIVE RIVERS METROPARKS

Collecting a limited number of fossils by the general public is permitted with the following restrictions:

- Fossils cannot be collected with the use of tools (e.g. hammers, picks, etc.)
- No more than three fossils per day per person may be collected from a MetroParks facility.
- Collected fossils can be no larger than the palm of your hand.
- Fossils collected from MetroParks cannot be sold.
- No climbing is permitted on rock ledges or outcroppings.
- Fossils only can be collected from designated fossil collection areas or under the direction of a MetroParks interpreter leading a public program.
- Those wishing to conduct scientific research that does not comply with these restrictions may apply to the MetroParks office for a research permit.

TOPICAL USERS' GUIDE

FOSSILS

THE CLUES WE HAVE TO THE NATURE OF LIFE



FIVE RIVERS METROPARKS



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OUR ANCIENT PAST

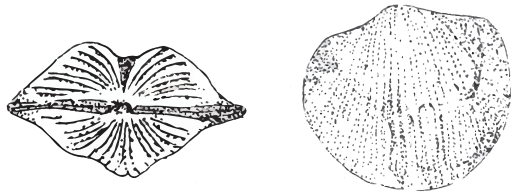
OHIO'S AMAZING PAST

Fossils in Five Rivers MetroParks are the remains of animals who lived in warm sea water. When you spot these fossils, realize that millions of years ago, the very spot you are standing on was in the southern tropical latitudes and covered with ocean water teeming with life!

Although no longer covered with sea water, the surface of Ohio is still slowly but constantly being changed by wind and water.

If you're collecting fossils, use the space below each type of fossil to note when and where you collect a sample. (See the list of fossil-collecting regulations on the back of this brochure.)

FOSSILS FOUND IN YOUR METROPARKS:



BRACHIOPODS

At first glance, brachiopods look a little like clam shells. They are one of the most abundant kinds of fossils found in Montgomery County. The animals that lived in these shells burrowed in the mud on the sea bottom or attached themselves to the sea floor by a fleshy stalk. Brachiopods are still found in the oceans of the world today.

DATE LOCATION

BRYOZOANS

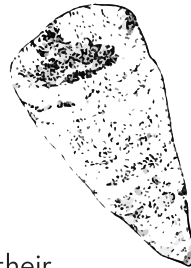
Bryozoan fossils are abundant in Montgomery County's Ordovician rocks. Bryozoans ("moss-animals") were tiny animals that joined together by the thousands to form colonies resembling fans or twigs. Like brachiopods, they also were sea creatures. At times, the bottom of the sea in Ohio was covered with huge colonies occupying every available surface.



DATE LOCATION

HORNED CORAL

This common Ordovician coral resembles a cow horn. Unlike most corals, which live in colonies, horn corals were solitary creatures. They lived attached by their pointed end to the ocean floor. Extending from their upper ends were fleshy tentacles that waved food into their mouths. Although horn corals are extinct today, their relatives include modern corals and sea anemones.



DATE LOCATION

CRINOIDS

Often called "sea lilies," crinoids were not flowers but animals. A stem anchored the animal to the sea floor and fleshy arms helped guide food into its mouth. The stem, which resembles a stack of



tiny LifeSavers, is the most commonly found crinoid fossil. "Flower heads" are rarely found. Crinoids that exist today are often beautifully colored and grow in colonies on the ocean floor. They are related to the starfish and sand dollar.



DATE LOCATION

GASTROPODS

Gastropods are simply fossil snails. They had a single shell that usually was coiled, a broad muscular foot and a well-developed head with eyes, mouth and tentacles. The land and water snails of today are related to these inhabitants of ancient seas.



DATE LOCATION

CEPHALOPODS

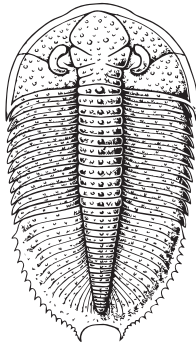
Cephalopods lived inside straight or coiled shells divided on the inside into compartments. Modern-day squid, octopi and devilfish are related to these once-abundant predators of Ordovician and Silurian seas.



DATE LOCATION

TRILOBITES

Ohio's state fossil, trilobites were sea creatures with a hard outer skeleton; two grooves running from head to tail divided it into three sections. In 1919 the largest complete trilobite fossil was discovered near Huffman Dam. The Huffman Trilobite measures 14.5-by-10.5 inch, but most trilobites are less than an inch in length. Typically, trilobites are found as curled up balls. In 1998 a trilobite found in Manitoba, measuring nearly 28 inches, surpassed the Huffman Trilobite. Crabs, spiders and insects are the present-day relatives of the extinct trilobite.



DATE LOCATION



GREAT FOSSIL SITES:

- Below Germantown Dam at Germantown MetroPark
- Below Englewood Dam at Englewood MetroPark
- Near stepping stones across Sugar Creek at Sugarcreek MetroPark