

Upper Fossil Beds

The area atop the low cliff (above the lower fossil beds) is the upper fossil beds. Here you will find a greater variety of fossils. They tend to be smaller and some require closer examination. These fossil-bearing layers are exposed most of the year. They are usually underwater during mid-winter to late-spring. Look for corals that are typically smaller than the those in the lower fossil beds. Shells called brachiopods are very abundant, both in the orange-brown layer and in the highest limestone layers at the edge of the gravel on the riverbank. Fan-like bryozoans that resemble delicate lace may be observed. The individual animals that make up these colonies require at least 10x magnification to be seen. Portions of the columns of crinoids (sea lilies) can be found in this layer. Some look like washers, other like threaded bolts. These are the remains of animals, not plants. The original creature can best be described as an upside-down starfish on a stem. Look carefully and you might find a giant snail up to four inches in diameter. The remnants of trilobites, animals that scurried along the sea floor like crabs or lobster today, may be found, but are fairly rare.

References Cited

- Davis, W.J., 1887. Kentucky Fossil Corals. Kentucky Geological Survey.
 Greene, G.K., 1898 – 1904. Contributions to Indiana Paleontology, vol. 1. (Privately published.)
 Nettleroth, H., 1889. Kentucky Fossil Shells. Kentucky Geological Survey.

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Trilobite tail: *Crassiproteus*



Brachiopod: *Megastrophia*



Fenestrate "Lace" Bryozoan



Crinoid columns and disks



Snail: *Turbinopsis*
 Also small horn corals and brachiopods in the *Brevispirifer* zone.



"Pipe Organ" Coral: *Eridophyllum*

Discovering Fossils at the Falls of the Ohio State Park

Alan Goldstein, Interpretive Naturalist

This brochure has been created to help you find fossils at the Falls of the Ohio using photos from the fossil beds. Remember - collecting fossils from the Falls is against Federal and State Law! However, we do have quarry piles near the parking lot where you can dig, find and keep specimens.

The fossil beds are made of limestone, a type of sedimentary rock. This limestone was formed beneath a shallow inland sea. Over millions of years, sediments composed of fossil skeletons large and small were compressed from a sandy or muddy sea floor to hard rock as the weight of overlying sediment was added. Only in the last 12,000 years has the river exposed the rock at the Falls of the Ohio.

The fossil beds can be divided into "lower" and "upper" layers. The lower fossil beds are underwater for much of the year. They are exposed sporadically in the summer through early winter, and are almost always exposed in September and October. These are the large flat areas on both the Indiana and Kentucky side of the Ohio River.



Memories made naturally.

Lower Fossil Beds (Coral Zone)

The “claim to fame” of the lower fossil beds is that it is possible to walk over a single layer on the ancient ocean floor for several acres. This could be compared to walking on a dry ocean bottom today. That is very unusual. This layer is dominated by colonial corals, horn corals and sponges called stromatoporoids. The uniform texture of the rock in the giant coral and sponge colonies cause them to erode at a different rate than the surrounding limestone resulting in low mounds. Where corals occur as thousands of tiny “fingers” in the limestone, splash water on them and they will “jump out” showing exquisite detail. These illustrations in this brochure will help you recognize certain kinds of fossil corals. There are over 100 species of coral in the lower fossil beds. To keep things simple, this brochure uses common names when they are available.



“Pipe Organ” Coral: *Acinophyllum*



“Wasp Nest” Coral: *Pleurodictyum*



“Tube” Coral: *Aulocystis*



Honeycomb Coral: *Favosites*
These are the most common colonial corals on the fossil beds.



Horn Coral: *Siphonophrentis* (we call it a “tusk coral”) with many other corals in the coral zone



Horn coral: *Cystiphylloides*
Getting fossils wet shows much more detail!



Branching Coral: *Thamnopora*



Stromatoporoid sponge with holes from embedded horn corals. These look like petrified cow pies on the lower fossil beds.