

## Fossil Sites in Nashville – A Trip Through Time

The following sites are good places to find local fossils. All are appropriate for children. Parking is available. At most there is a sidewalk between the fossil site and the street. At the others, the site is along a parking area.

The sites are listed from the earliest to the most recent (from 456 - 438 million years ago)

**Nolensville Pike at Edmondson Pike (Carters Limestone)** Park on the east side of the street at Mapco at 4190 Nolensville Pike (36.0769°N, -86.7253°W). Walk south on Nolensville, crossing Wallace Rd. at light. The site is in front of Southern Hills Hospital. This is a good site for trace fossils, but has other Carters fossils.

**Providence Shopping Center, Mt. Juliet (Carters Limestone)** This site is left on Providence Parkway at Holiday Inn on S. Mt. Juliet Road and then right just past Jonathans Grille at 613 S. Mt. Juliet Rd. (36.1627°N, -86.5116°W). The site is on your left. This is a good site for snails, but has all of Carters Limestone fossils.

**Lebanon Pike across from Mount Olivet Cemetery (Carters Limestone)** This site is in the yard of a building supply company 1136 Lebanon Pike (36.1537°N, -86.7332°W). Go into the building and ask permission before entering. In it you can see the residue of ash falls (T3 bentonite clay) from the Deike volcanic eruption which marks the break between lower and upper Carters Formations (about 454 million years ago). This is a working business and thus is not a good place to hunt fossils, but it is worth a visit to see this piece of geologic history.

**Nolensville Pike at Windland Plaza (Hermitage Formation)** This site is behind Aldi at 3758 Nolensville Pike (36.0906°N, -86.732°W), across Nolensville Pike from the Nashville Zoo. It is full of slabs of Hermitage fossils, but is not a good place to find individual fossils.

**Old Hickory and Edmondson Pike (Hermitage Formation)** This site is in the shopping center behind Kroger and Gus's Fried Chicken at 5713 Edmondson Pike (36.0392°N, -86.746°W). It has more individual fossils than Windland Plaza.

**Metro Center Boulevard at the Maxwell House (Catheys Formation)** This site is at 2025 Rosa Parks Blvd (36.190°N, -86.7988°W). Park either in the Maxwell House lot or in the McDonalds' lot and walk to the sidewalk on Rosa L. Parks Boulevard. It is an excellent site to find corals and stromatoporoids (reef-building sponges), as well as calcite and gypsum crystals.

**Nashville West Shopping Center (Catheys Formation)** This site is next to Target at 6814 Charlotte Pike (36.1341°N, -86.8928°W) This is a very large site with lots of brachiopods (*Rafinesquina*, *Hebertella*, *Platystrophia*), both slabs and individual fossils.

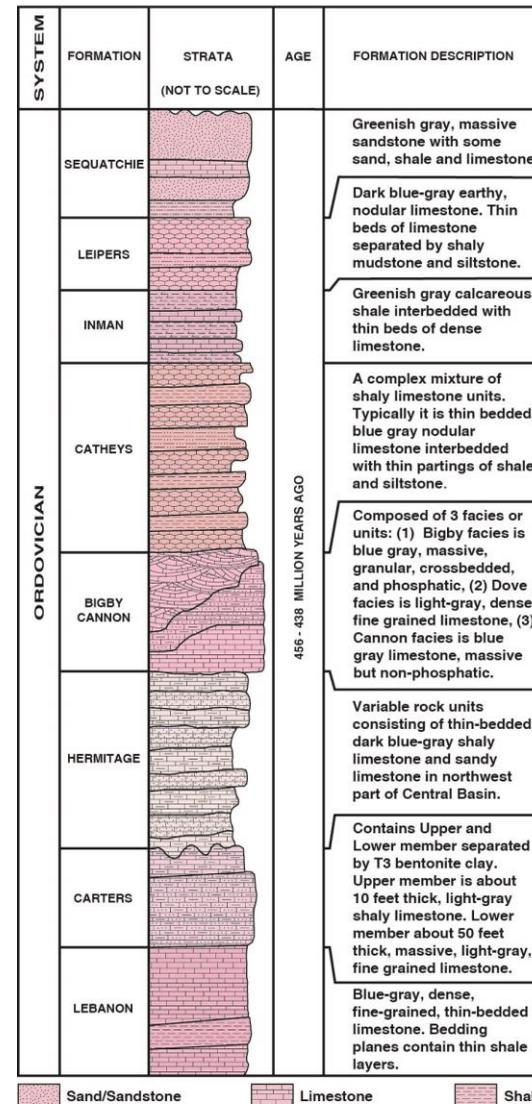
**Rt. 431 and Battlewood St., Franklin (Catheys-Leipers Formations)** Park in the gravel lot next to the strip mall at 2181 Hillsboro Rd (35.997°N, -86.8864°W). This site contains brachiopods and snails of the Catheys and Leipers Formations.

**Rt. 70 South at Red Caboose Park (Leipers Formation)** There are exposures on both sides of Rt. 70 S (36.0737°N, -86.932°W). Park either in the Red Caboose lot or in the lot of the Bellevue Presbyterian Church and walk up the sidewalk to the top of the hill. Occasionally the city clears away the fossils, and you have to wait for more to weather out.

### Remember the etiquette of fossil collecting!

- Ask Permission! Fossils always belong to the land owner, including the state of Tennessee.
- Don't be greedy! Leave your second and third-best specimens for the next guy.
- Keep a record! Mixed-up fossils are worthless--remember to log the site location.
- Be safe! Roadside or Cliffside collecting can be dangerous. Bring a buddy. Watch the weather.

**And of course--Have Fun!**

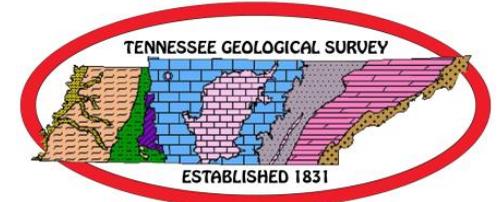


Original stratigraphic column by H.R. Beaver, geological engineer. Redrawn by Vince Antonacci, staff geologist.

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## Fossil Hunting in Nashville

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Compiled by Nancy Stetten  
Illustrated by Al Hulstrunk  
Supported by Betty Claymore and Jim Davison



Ordovician sea floor showing bivalves, cephalopods, corals, crinoids, and trilobites.  
Photographer: Jason Edwards/National Geographic Creative  
<http://www.natgeocreative.com/photography/1422654>

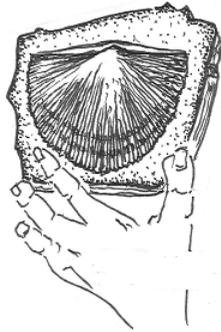
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## FINDING FOSSILS IS FUN

This is a hobbyist guide to identifying Ordovician fossils in the fossil-rich Central Basin. The Ordovician Period began about 500 million years ago, when what is now Tennessee was a tropical marine environment south of the equator. Early marine life developed in these seas and left fossil evidence of their presence for enthusiasts to enjoy. Learn what fossils have been found previously before you hunt. If you find an unknown fossil, go to our online website at <http://tennesseefossils.com/index.php> to identify it. People who like fossils love the challenge. If you still can't identify it, just respect it as a wonder of nature.

### Brachiopods

Brachiopods are filter-feeding animals whose shells can be very abundant. Although the shells resemble mollusk shells, the animals are quite different. Brachiopods are still alive today, although they mostly live in deep water, where people don't see them.



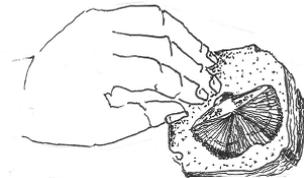
*Rafinesquina*  
(All strata)



*Resserella*  
(Hermitage)



*Zygospira*  
(Bigby, Catheys)



*Hebertella*  
(Bigby, Catheys, Leipers)



*Platystrophia*  
(Bigby, Catheys, Leipers)



*Rhynchotrema*  
(Bigby)

### Bryozoans

Bryozoans are colonies of tiny filter-feeding animals. The colonies can take many forms. *Prasopora* forms a lens-shaped colony over a brachiopod shell. *Atactoporella* covers small snails. Others form tree- or frond-like, free-standing colonies. Bryozoans are still alive in the seas today, where they grow on hard surfaces, and can cause fouling of ship hulls.



*Atactoporella*  
(Hermitage)



*Constellaria*  
(Bigby, Catheys)



*Heterotrypa*  
(Catheys, Leipers)

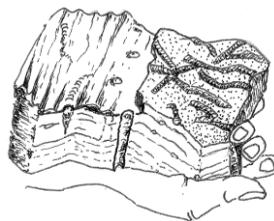


*Prasopora*  
(Hermitage, Bigby)

### Trace fossils

These are geological records of biological activity including:

- \*borrows
- \*borrow castings
- \*ripple grooves
- \*tracks



### Mollusks

Three classes of mollusks are represented in the rocks around Nashville:

- \*Bivalves (includes modern clams, oysters, and scallops)
- \*Gastropods (Snails, slugs, conch shells, etc.)
- \*Cephalopods (shelled relatives of squids and octopi)



*Cyrtodonta*  
(Bigby, Catheys)



*Byssonychia*  
(Bigby, Catheys, Leipers)



*Hormotoma*  
(Bigby)



*Lophospira*  
(Bigby, Catheys)



*Cyclonema*  
(Catheys)



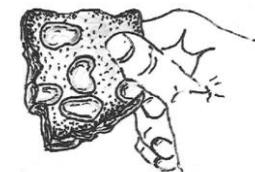
*Cyrtoceras*  
(Catheys)



*Actinoceras*  
(All strata)

### Arthropods

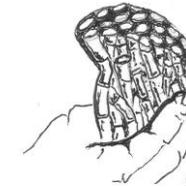
Ostracods are tiny and common crustaceans often called "seed shrimps". Modern arthropods also include insects, spiders, crabs, centipedes, etc.



*Ostracod*  
(All strata)

### Cnidarians and Porifera Reef builders

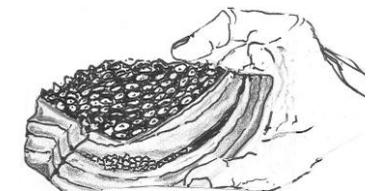
Evidence of reefs can be found in Carters Limestone and the Catheys Formation. These reefs were built by three different types of animals: two corals, *Foerstephyllum* (formerly known as *Columnaria*) and *Tetradium*, stromatoporoids such as *Stromatocerium*, now classified as a sponge, and concentric masses of cyanobacteria called stromatolites. These last were common in mid-Paleozoic seas such as those which laid down the rocks of Nashville, and still persist in a few sheltered localities around the world.



*Foerstephyllum*  
(Catheys, Bigby, Carters)



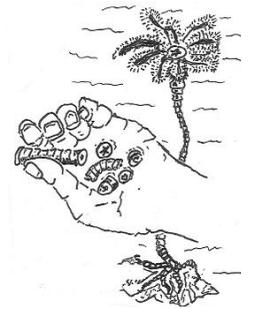
*Tetradium*  
(Catheys, Bigby, Carters)



*Stromatocerium*  
(Carters, Catheys)

### Echinoderms

Distantly related to modern starfish, crinoids are filter-feeding animals that lived attached to the sea floor. Stem segments are the parts usually found.



*Crinoids*  
(All strata)