Geology of the Karst Loop Trail North Half

Trail Description

This trail description proceeds from Page Sawmill Road in a counter-clockwise direction. The first 1.5 miles winds through the Boone Formation staying on the tops of the hills. Look for pieces of chert and limestone along the trail that contain brachiopods and crinoid fragments. Once you start downhill towards the lake through a series of tight turns you will eventually reach the St. Joe Limestone at Stop 1.

Stop 1: The St. Joe Limestone is present along the trail around the 1200 foot contour. It is fairly thin in this area; around 20 feet thick. You will quickly descend below it along the trail to Stop 2.

Stop 2: You are now at the base of the St. Joe Limestone. Notice the black dirt in the trail. This is the weathered Chattanooga Shale, the next geologic unit underneath the St. Joe.

Continue along the trail and you will proceed back into the St. Joe Limestone with rock ledges exposed along the trail until Stop. 3.

Stop 3: The St. Joe Limestone outcrop ends here at the Blackburn Creek Fault. Evidence of the fault is seen by the drop in elevation between the St. Joe here and across the small drainage to the south. The St. Joe crops out 50 feet lower on the south side of the fault across the drainage.

Continue along the trail to the foot bridge. A spring is present in the Boone Formation. If the fault were not present, the St. Joe Limestone would be continuous to this location from Stop. 3. Walk around the drainage to Stop 4.



Stop 2. St. Joe Limestone along trail.



Brachiopod along trail before Stop 1.



Stop 3. Spring in Boone Formation

Stop 4: This is a great vantage point (in the winter) to view the the position of the St. Joe Limestone on either side of the fault. This stop is on the south side of the Blackburn Creek Fault at the top of the St. Joe Limestone. Look across the drainage and up the hill to see the St. Joe at a higher elevation.

Continue on the trail. You will walk on top of the St. Joe for a short time before dropping below it and getting a good look at the limestone and the lake. Once again, follow the base of the St. Joe Limestone to Stop 5 where the outcrop ends against the Blackburn Creek Fault zone.

Stop 5: The Blackburn Creek Fault is exposed in the rock along the lake here. When the lake level is low, a fault breccia will be exposed against the sandstone on the north side of the fault. You can also look across this drainage and see the fault extending eastward. Notice the black shale on the south side of the fault. The sandstone would be continuous along the lake edge if the fault were not present.

Continue along the trail from Stop 5. Once again you will be walking on top of the St. Joe Limestone around this finger of the lake. To continue this loop to the end, go to Trail Map 7B.



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Stop 5. View across drainage showing continuation of fault (red line).

SPS-04 Trail Map 7A

Hobbs State Park - Conservation Area Arkansas Geological Survey 2019

