

We hope that you have enjoyed your walk along the Barb Patrie trail. Please take this pamphlet with you, or return it to the supply box for reuse. Your assistance in removing any trash you observe is very much appreciated.

Conservancy membership would provide you with regular information about MKC activities and opportunities to participate in our programs and activities at this and other MKC preserves. Dues and contributions are tax deductible. Your support would be very much appreciated. For further information about karst in Michigan, to join MKC, or to support the efforts of MKC to protect and manage examples of karst features in Michigan, write to: Michigan Karst Conservancy, Inc., 2805 Gladstone Avenue, Ann Arbor MI 48104, or to mkc@caves.org. The MKC is also on the Web at <http://www.caves.org/conservancy/mkc/>

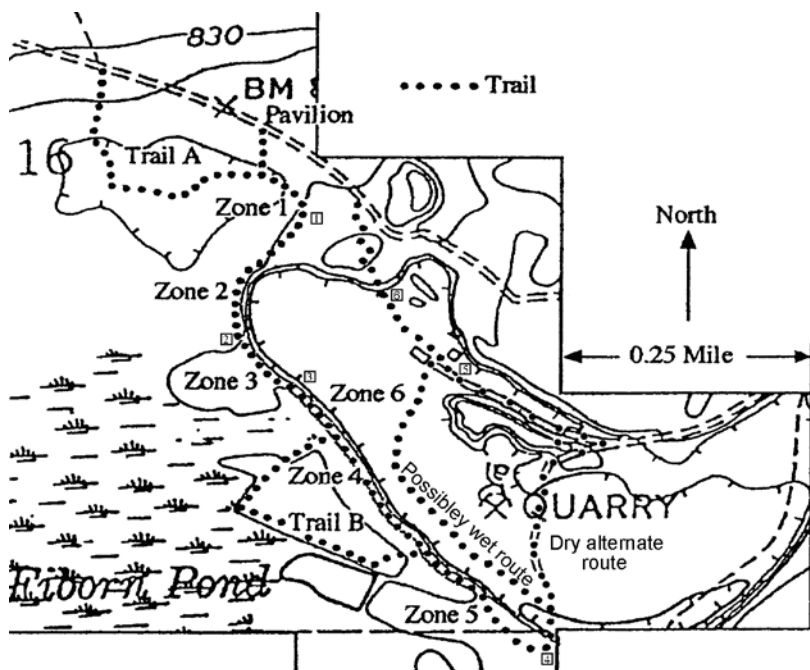


Figure 1 — Barbara Ann Patrie Trail

Barbara Ann Patrie was the first trip coordinator and most active trip leader for the Fiborn Karst Preserve after its creation in 1987. She shared her enthusiasm for this Preserve and the work of the MKC with all she guided here. She helped begin the Fiborn History Project oral history program. She usually started her tours at the southern overlook, where Sinking Creek flows into the quarry, so visitors could learn about the history of the quarry and “ghost” town of Fiborn Quarry as well as about karst and the natural features of the Preserve. She served on the MKC Board of Trustees from 1988 until her untimely death in 1991.

FIBORN KARST PRESERVE OF THE MICHIGAN KARST CONSERVANCY

Barbara Ann Patrie Memorial Trail

Welcome to the interpretive trails of the Fiborn Karst Preserve. These trails provide access to interesting features for education and enjoyment.

Trails policy

The objective of the Michigan Karst Conservancy is to protect karst areas in Michigan and to educate the public about the value of karst lands and the safe and proper use of these lands.

One aspect of this objective is to provide educational trails on its karst preserves. These trails are narrow footpaths that often go through wet or muddy areas; across or around rocks and boulders; and often have steep, narrow, hilly, or sideways tilted surfaces. Some cross bare rock or cross a stream on a narrow rustic bridge.

These trails are not suitable for personal assistance mobility devices such as walkers, manual or motorized wheelchairs, power scooters, golf carts, off-road or all-terrain vehicles. Use of such equipment on MKC trails is not reasonable and is likely to do damage through soil erosion, trail widening, plant and root damage, and is thus prohibited.

Visitation to MKC preserves is at the visitor's own risk. MKC normally will not have staff or volunteers or emergency phones or equipment present at a preserve. The preserves are a significant distance from emergency medical facilities. Cell phone coverage is limited or non-existent, especially in the Upper Peninsula.

Hiking the trails

Please treat the features of the Preserve in such a way that their interest and appearance are not altered. A permit is required to collect animal, plant, or mineral specimens. It is recommended that you wear long pants, long sleeve shirt, sturdy shoes, insect repellent (in season), and carry water and a compass.

The Barbara Ann Patrie Memorial Trail is a 1.5-mile loop beginning and ending at the east end of the History Pavilion area along Norton Camp Road. Walk south from the Trails sign to where both the Sinkhole Trail and the Barb Patrie trail begin. Turn left to the Barb Patrie trail. The large boulder with the commemorative plaque is an intrusive (plutonic) rock called gabbro, which was transported from the Canadian Shield (precambrian rocks) by glaciers more than 9,000 years ago. Figure 1 (page 4) shows a portion of the Preserve and the Barb Patrie trail. The trail is divided into six zones.

Zone 1 (beginning to marker 1): upland second-growth hardwood forest.

This zone is Beech–Maple hardwood forest with sugar maples (*Acer saccharum*) and scattered beech (*Fagus grandifolia*), hemlock (*Tsuga canadensis*) and balsam fir (*Abies balsamea*). The forest composition, and the karst depression to the south, are extensions of the same features seen on the Sinkhole Trail.

Zone 2 (marker 1 to marker 2): disturbed soils and western edge of quarry.

One leaves the forest to enter a zone with evidence of early quarrying activity. The soil was much disturbed, leaving a relatively open glade between the forest and the quarry where hardwood trees have not reestablished themselves. An abandoned narrow-gauge rail bed is encountered just before the trail nears the west end of the quarry.

Bedrock is exposed at a point where overlying soil (overburden) had been removed between the trail and the quarry. Good examples of karst pavement, open joints, and solution-widened joints are visible here. These formed below the original soil cover. One may cautiously descend down a narrow defile to the quarry floor near here to inspect a section of the pure Fiborn Limestone exposed by the quarry. The characteristic low-angle joints of the formation are seen here. The quarry floor is a magnesian limestone that was not suitable for the uses intended for Fiborn Limestone.

Zone 3 (marker 2 to marker 3): Canyon Creek zone. The trail enters the forest again and turns southeast to follow the trend of the quarry walls. The soils are largely undisturbed and the forest has more white cedar (*Thuja occidentalis*) due to moister conditions. A short way along this zone the trail descends slightly and crosses Canyon Creek on a bridge.

Canyon Creek is fed from the swamp associated with (old) Fiborn Pond (Figure 1) and has cut a significant canyon (including a short flooded cave) into the Fiborn Limestone. The creek now spills out onto the quarry floor but originally it is reported to have flowed in a somewhat shallower canyon to sinkholes in the vicinity of the buildings in the quarry where it went underground as it does today.

Zone 4 (marker 3 to southeastern trail B junction): overburden ridges and dumping area.

During the quarrying operation a great deal of overburden was removed from the limestone prior to blasting. Some of this was piled along the edge of the quarry to form the present distinctive ridges, but most of it was carried by rail car to a large dumping area southwest of the quarry. Along this portion of the trail is a grove of very large but now mostly dead aspen (*Populus tremuloides*), which took root on the overburden and lived their lives since the quarry was closed in 1937. (CAUTION: These dead trees are still shedding branches, pass carefully and quickly.)

A junction with Trail B is now encountered. It climbs up onto the overburden dumping area that abuts Fiborn Pond and eventually circles back to the Barb Patrie trail at the end of Zone 4. The Barb Patrie trail continues from the

junction and climbs back up onto a high ridge of overburden. Good views of the quarry and quarry buildings are available from these ridges.

Trail B: overburden dump and Fiborn Pond. From its northwest (first encountered) end, Trail B ascends along the northwest end of the overburden dump. The very pronounced and distinctive ridges were formed by overburden being dumped to both sides from rail cars before the tracks were moved over to form the next pile.

Trail B ascends to an overlook into Fiborn Pond. Originally the pond was a cedar swamp and the stumps left from logging the cedars are still visible. Dams were built at both the southeast end of the pond and on Canyon Creek to keep water out of the quarry by directing it to the Flat Creek sinkhole (see Sinkhole Trail guide). Beavers live in and maintain the pond. Their trails and aspen cuttings are visible along Trail B. The southeastern dam is visible where Trail B turns to descend along the edge of the woods back to rejoin the Barb Patrie trail at the southeast end of Zone 4.

Zone 5 (southeastern Trail B junction to marker 4): last quarrying and small caves. The final section of the trail above the quarry passes an overlook into a bench where the last quarrying was done prior to 1955 and a very disturbed area where rail cars passed to carry overburden to the dump. Small cave openings into Bad Breath Cave are visible below the trail. Zone 5 ends at the south end of the quarry, where a road comes in and descends to the quarry floor. Quarry Cave on Sinking Creek is in the woods adjacent to the level area overlooking the quarry (permission is required to enter this cave). Sinking Creek disappears in the cave and resurges from the broken rock piled up against the quarry wall. It flows a short distance across the quarry floor and disappears into a sinkhole. This sinkhole was dug to the water table without finding any further passage.

Zone 6 (marker 4 to marker 5): quarry floor, sinks, and buildings. From marker 4 you can see buildings to the northwest. This is your objective but it is almost impossible to go directly there and keep your feet dry except in the driest weather. The safe route is to follow the rough road down the hill and through the quarry. This road will “T” into another road where you will turn left toward the buildings. You will find marker 5 on the right side of this road just before reaching the buildings. To the south, across the road, you will see a patch of trees; in these trees is a sinkhole that will be taking all of the water that can flow into it and moving it away, who knows where.

The remaining quarry buildings are the crusher foundation and the railcar shop. More information about the history of Fiborn Quarry is available from the History Pavilion. The trail returning to the Pavilion climbs out of the quarry northwest beyond the buildings at marker 6 and, after a final short segment in forest, joins Norton Camp Road, where a left turn will give one a short walk back to the History Pavilion.