

2019 IGS Pre-Meeting Field Day Itinerary

“The Illinois Driftless Area”

Thursday, April 25, 2019

Overview: This Illinois Geographical Society- sponsored tour explores Illinois' corner of the Driftless Area, a region that also includes southwestern Wisconsin, northeast Iowa and southeast Minnesota. Unlike surrounding areas that were heavily glaciated in the last 500,000 years, this one was bypassed, leaving a rich and varied landscape that many consider the most beautiful in the Midwest. Dr. Daryl Watson, local geographer and historian will be our guide for this excursion. The tour is self-pay for all meals, gas, and any parking fees. Parts of this tour are financially subsidized by the IGS.

Meeting Point: Gather in the main parking lot at Apple River Canyon State Park (intersection of N. Canyon Park and East Canyon Road) at 10:00 a.m., Thursday, April 25, 2019, rain or shine.

Tour cost: \$20 per person to be paid at registration prior to the trip. Some funding support is being provided from IGS. Pre-registration is necessary for this trip.

Transportation: This family-friendly field day experience will be conducted through car caravan with some walking. You will be responsible for your own gasoline costs, any parking fees, and meals.

Itinerary

10:00 - 10:50 a.m. Apple River Canyon State Park is truly unique, having been carved out of bedrock by a cascade of meltwater from a glacial lake just to the east. The Illinoian glacier about 250,000 years ago blocked the natural drainage to the southeast and a huge lake backed up, spilling over a divide and rushing southwestward toward the Mississippi River. Near vertical walls over 100 feet high were cut into the Galena Dolomite, creating micro-habitats that still exist today. Many northern species of plants and animals, some threatened or endangered in Illinois, are to be found in and around the cool, clear waters of the small stream that runs through the park. From the stately white pines to the lowly bird's eye primrose to the rainbow trout, it's truly a special place for those exploring Illinois. (Check out their website: <https://www.dnr.illinois.gov/Parks/Pages/AppleRiverCanyon.aspx> Phone: 815-745-3302) For the historians, it is also home to the vanished settlement of Millville, a stage stop for the first stage line to offer weekly service between Chicago and Galena.

10:55 – 11:05 a.m. Only three miles south on N. Canyon Park Rd. is the northern tip of Benton Mound, second highest point in the state. Its summit is 1226', only 15' less than Charles Mound, which is located 12 miles to the northwest on the IL-WI border. While the summit is privately owned and not accessible, the view from Canyon Park Road is still one of the best in the state. Here we will view a row of mounds to the northwest that represent all the highest points in the state of Illinois. They were once part of a vast elevated plain that has been slowly dissected by streams, leaving only these peneplain remnants. The lack of glaciation has preserved them. The southern end of Benton Mound terminates with the village of Stockton, making it the town with the highest elevation in the state (and not the village of Scales Mound--a close second--and only a stone's throw from Charles Mound). These mounds are all capped by Silurian-age dolomite rock, which is very resistant to erosion and protects the softer rock underneath.

11:05 - 11:30 p.m. From Benton Mound we will head south three miles to U.S. Route 20. We will then head west, over Rush Creek, up onto Terrapin Ridge, down into the village of Elizabeth and west over the Apple River, past the huge quarry on the right, and up the hill to the Long Hollow Lookout rest stop at the top, having climbed up through 50 million years of earth history. Here we will talk about that history, and the former look-out tower (now history) and the case of contaminated well water. This is where the new well drilled by the state to service the rest stop became undrinkable because of e-coli contamination, probably from the heavily fractured and fissured limestone and dolomite that underlies the entire region.

12:00 -12:20 p.m. We will next head south, back down the hill to IL Route 84, only to make a right turn on Saw Mill Road, which heads west to Blackjack Road (named after the zinc ore that was heavily mined along the northern stretches of this road). Just off Blackjack, just four miles to the north, will be Chestnut Mountain Ski Resort--and lunch (on your own) at their restaurant. (<https://www.chestnutmtn.com/> Phone: 1-800-397-1320).

1:20 - 1:45 p.m. After lunch we will relocate our vehicles to the north end of the parking lot and walk about 100 yards along the road to the twin sinkholes, one on either side of the road. Sinkholes are evidence of karst topography, where slightly acidic rainwater--over thousands of years--percolating down through limestone and dolomite, dissolves the rock, leaving crevices and caves. If enough of the underlying rock is dissolved, the overlying strata may collapse, creating what you will see here. Most all of Jo Daviess County is susceptible to this process, even though sinkholes may or may not be present.

1:45 - 3:00 p.m. Our next stop will be Casper Bluff Land and Water Reserve, home to the last complete "Thunderbird" effigy mound in Illinois (A.D. 600-1000). But along the way, we will pass a large hillside buried in brush and tailings, the latter spoils from the huge zinc mining activity taking place in the area up until the 1970s. It has now been declared by the U. S. EPA to be a national "Super Fund Clean-Up Site" due to contamination of the surrounding soil and water by trace amounts of heavy metals. There are still a few miners left who worked these mines. But much more uplifting is Casper Bluff, an 80 acre parcel on the bluff overlooking the Mississippi River, and containing about 20 "Indian Mounds." Some were for burial, others were ceremonial, and some may have marked territory. (<http://jdcf.org/> Phone: 1-815-858-9100)

3:00 - 3:30 p.m. From Casper Bluff we will head up Pilot Knob Road (and past another mound named because it was a visible landmark showing steamboat captains the location of the Galena River amongst the innumerable back sloughs). A short distance beyond (and only a mile from Galena) we will head up a steep gravel drive to the top of Horseshoe Mound, which U. S. Route 20 winds around before descending down into Galena. From here we will be able to view Galena and three states--all from the top of another one of Illinois' highest points. (<http://jdcf.org/> Phone: 1-815-858-9100)

3:30 - 4:00 p.m. Next, we will head through Galena on U. S. Route 20 to a mile northwest of town where IL Rt. 84 North splits from 20 and heads towards Wisconsin. A mile north we will turn right on Council Hill Road and head one mile east to N. Meridian Road. This was a heavily mined area from

the very first settlement to the 1960s. At the intersection not much can be seen, but underneath are vast caverns that were part of the Eagle Pitcher Mine. A huge tailing pile, perhaps 200' in height, has all but disappeared; the tailings having been used by local governments to spread on the roads (after being mixed with salt) to aid winter driving conditions. This was before the U. S. EPA. Heading north on Meridian Road we will see on the left (west) early "diggings", including "sucker holes" which were the earliest form of mining. A miner would follow a crevice and dig down to find shallow deposits of lead. A windlass might be used to go deeper, but the mounds of earth were simply left to weather, sometimes posing hazards to man and animals alike. We will continue a short distance north and then turn left onto Furlong Road which leads back to Rt. 84 and then back to U. S. Rt. 20. Turning right on 20 takes one to Dubuque, IA.

Further Information: Most of the tour is based upon an itinerary found within Illinois State Geological Survey's Geological Science Field Trip Guidebook 2014A entitled "Guide to the Geology, Hydrogeology, Botany, History, and Archaeology of the Driftless Area of Northwestern Illinois, Jo Daviess County" by S. Panno, P. Milhouse, R. Nyboer, D. Watson, W. Kelly, L. Anderson, C. Abert, and D. Luman and may be purchased for \$8.00 per copy plus shipping, handling and tax from the Prairie Research Institute, 615 East Peabody, Sales Office Room 139, Champaign, IL 61820, (217)244-2414, sales@prairie.illinois.edu.

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Reservations need to be made by Monday, April 1, 2019

Itinerary Subject to Change