

# OUTSTANDING GEOLOGIC FEATURE OF PENNSYLVANIA

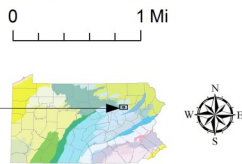
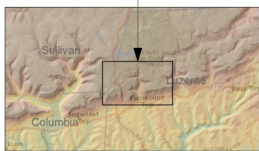
## KITCHEN CREEK GORGE, LUZERNE COUNTY

Stuart O. Reese, 2016



### Location

Ricketts Glen State Park, Luzerne Co., Fairmont Twp.,  
lat: 41.3105, lon: -76.2759; Red Rock 7.5-minute quadrangle



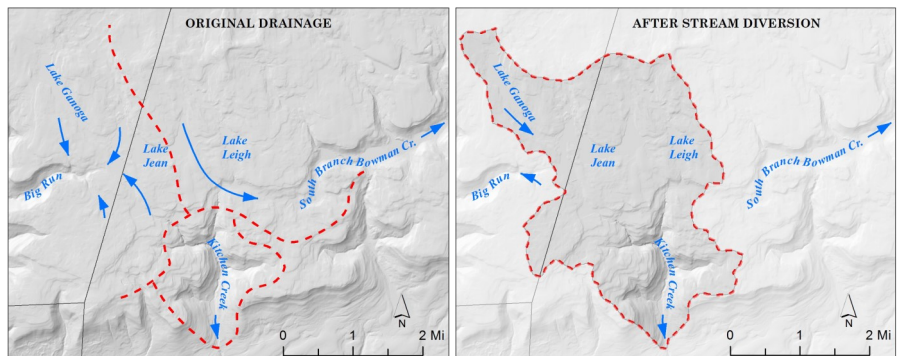
### Geology

Kitchen Creek gorge, located in Ricketts Glen State Park, cuts across the Allegheny Front, as Kitchen Creek descends 1,000 feet in a little over 2 miles and over about 25 waterfalls. The rim of the Allegheny Front is topped by a thick sequence of sandstone layers in the Huntley Mountain Formation. This unit overlies the less resistant interbedded shales, siltstones, and sandstones of the Catskill Formation.

The gorge was carved back into the sedimentary rocks of the Allegheny Front. Glaciers had a substantial impact on the drainage patterns of the area. As the glaciers melted and began their retreat to the north, they dumped enough sediment to block the headwaters of Big Run and divert their flow into the Ganoga Branch of Kitchen Creek (see sketch below). Streams in the Lake Leigh area were also captured by Kitchen Creek when outflow from a glacial lake carved a notch or sluiceway across the drainage divide. In total, about 7 square miles of drainage area was added to Kitchen Creek.



Ganoga Falls, shown above at low flow, is the highest falls (94 feet) in Ricketts Glen State Park.



Maps show addition of drainage area to Kitchen Creek due to stream capture. Drainage divides are shown as red dashed lines.

### Recommended Reading

Inners, J. D., and Fleeger, G. M., eds., 2006, The Haystacks, “Ricketts Folly,” and the end of the world—geology of the Glaciated Allegheny High Plateau, Sullivan, Luzerne, and Columbia Counties, Pennsylvania: Annual Field Conference of Pennsylvania Geologists, 71st, Red Rock, Pa., [Guidebook](#), 129 p.

Braun, D. D., and Inners, J. D., 1998, Ricketts Glen State Park, Luzerne, Sullivan, and Columbia Counties—The rocks, the Glens, and the falls (2nd ed.): Pennsylvania Geological Survey, 4th ser., [Trail of Geology 16-013.0](#), 10 p.

[Ricketts Glen State Park](#) web page of DCNR.