OUTSTANDING GEOLOGIC FEATURE OF PENNSYLVANIA

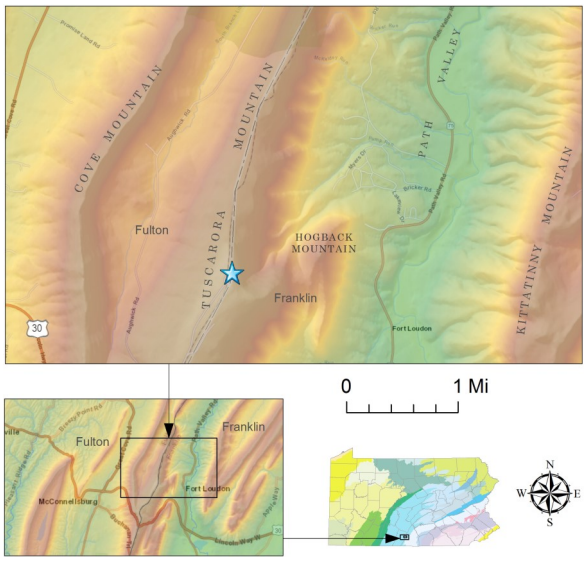
TOWER ROAD VISTA, FRANKLIN COUNTY

Stuart O. Reese, 2016

Trail of Geology
16–108.0

Location

Tower Rd., Buchanan State Forest, Franklin Co., Metal Twp., lat: 39.95030, lon: -77.93648; McConnellsburg 7.5-minute quadrangle



Crossbedding in the Tuscarora sandstone.

Geology

At about 2,458 feet, the Tower Road site on Tuscarora Mountain in Buchanan State Forest provides a magnificent vista of classic Ridge and Valley topography. Much of the view is to the east over Path Valley, which lies on the axis of a breached anticline (upfold). The cap of the anticline has been eroded away by millions of years of erosion, leaving the older bedrock core of softer shale, limestone, and dolostone exposed on the valley floor.

The crest of Tuscarora Mountain, about 1,800 feet above the valley, is composed of Silurian-age Tuscarora Formation, a hard quartz sandstone. The medium-gray to very light gray, highly resistant sandstone is a dominant ridge former in the Ridge and Valley. The formation is typically 500 to 600 feet thick in south-central Pennsylvania and is part of a wedge of sediments associated with the Taconic mountain-building event that took place at the end of the Ordovician. The Tuscarora is thought to have originated as a beach deposit that had a source of sediment from the east. Geologic mapping indicates the rocks are complexly folded and faulted. Rocks underlying the area shown in the photograph below were pushed, folded, and thrust from right to left. Most recently, the rocks have been vandalized with spray paint. Despite the paint, crossbedding in the Tuscarora is visible in profile.

View to the east. Hogback Mountain is in the center of the photograph. The prominent ridge in the background is Kittatinny Mountain, behind which is Little Mountain. In the foreground, Conococheague Creek drains Path Valley to the south, flowing into the Potomac River. On the clearest of days, a span of nearly 100 miles can be seen—from north into Huntingdon County to south across the Great Valley physiographic section, the South Mountain section, Maryland, West Virginia, and possibly the tip of northern Virginia.

Recommended Reading

Pierce, K. L., 1966, Bedrock and surficial geology of the McConnellsburg quadrangle, Pennsylvania: Pennsylvania Geological Survey, 4th ser., Atlas 109a, 111 p.

Buchanan State Forest web page of DCNR.

Published by the Pennsylvania Geological Survey.

pennsylvania
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AND NATURAL RESOURCES