

OUTSTANDING GEOLOGIC FEATURE OF PENNSYLVANIA

BRADYS BEND, CLARION COUNTY

Stuart O. Reese, 2016



Location

Bradys Bend Overlook, Clarion Co., Brady Twp., lat: 40.98818, lon: -79.58312 (parking); East Brady 7.5-minute quadrangle



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Geology

Bradys Bend was named after Samuel Brady (1756–1795), legendary frontiersman from Shippensburg, Pa., who traveled throughout western Pennsylvania, West Virginia, and Ohio. Bradys Bend is a great example of an entrenched meander. The outside bend in the Allegheny River stretches nearly 6 miles while measuring less than a half mile across the neck.

An overlook is located along Pa. Route 68 on the north side of the neck, 520 feet above the river. The view to the northwest is across the beginning of the meander as the river flows south and then circles counterclockwise to the west at a low gradient. The Allegheny River loses about 2 feet of elevation over the 6 miles of the meander. The river contains a series of locks and dams upstream from Pittsburgh, the northernmost of which is about 3 miles downstream of the meander. The bedrock is flat-lying sandstone and shale, and the meander likely followed regional bedrock fractures, which trend south-southwest and west-northwest.



View of the Allegheny River to the northwest. Previous flow against the neck of the meander was not quite enough to breach or cut off the neck. About 10 river miles northwest, a completely abandoned meander can be seen across the river from Parker. This entire section of the Allegheny River was part of the lower of three separate preglacial drainage networks in western Pennsylvania to the St. Lawrence River. This lower network flowed south to the Monongahela River at Pittsburgh, where it turned and flowed northwestward into the Erie Basin and ultimately out the St. Lawrence Seaway. The “Lower Allegheny” drained a large portion of west-central Pennsylvania before Pleistocene glaciation and damming of streams forced a redirection of the regional streamflow into today’s Ohio River.

Recommended Reading

Harper, J. A., 1997, Of ice and waters flowing—the formation of Pittsburgh’s three rivers: [Pennsylvania Geology](#), v. 28, no. 3/4, p. 2–8.

_____ 2002, Lake Monongahela—anatomy of an immense Ice Age pond: [Pennsylvania Geology](#), v. 32, no. 1, p. 2–12.