How Would You Map the Soil in a Designated Wilderness Area of the Buffalo National River?

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Well, just ask any member of the Newton County Soil Survey Party how it was done.

The Buffalo National River was set aside as a National Park in 1972, making it our nation's first National River.

Situated in the scenic Ozark Mountain Country of north Arkansas this free flowing river tumbles out of the Boston Mountain range from an elevation of about 2,300 ft. means sea level and cuts swiftly through many geologic formations to where it is entrenched today in the St. Peter Sandstone and Everton Formation and Powell Dolomite somewhere around 920 ft. means sea level near the community of Ponca. The Buffalo River has always been a popular recreation area for the surrounding communities, which meant there was once a road or trail of some sort leading to almost every curve in the river and every decent swimming and fishing spot.

Along with the National Park designation came closed roads, access to the river at designated spots only, and eventually wilderness areas—with access by foot only in some places.

Faced with the task of mapping the soil in one such wilderness area, known as the Ponca Unit Wilderness, the survey party had two alternatives—spend days on foot backpacking through the brush-choked river valley or spend a few hours working from a canoe on the river itself.

The terrain of this area consists mainly of sheer bluffs which actually box in the river valley below (Fig. 1). The river valley in most places is a quarter mile wide or less. Due to the remote area, rugged terrain, and limited access our choice became clear.

This unusual task called for unusual methods. We chose the river route and through arrangements with the Park Service our river expedition was planned.

On June 15, 1983 just after a rain which would provide good floating conditions, we launched our canoe and equipment from the Steel Creek launch area and ranger station (Fig. 2). Steel Creek is just east of Ponca off State Highway No. 74. The area that we were to map consisted of 8 river miles of wilderness that would take us down river to Kyles Landing. By using a canoe to travel down river we were able to stop at predetermined areas which afforded us a good look at the soils as we classified and mapped them.

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