Subject: Conservation
Topic: Predicting wild trout presence
Re: Predicting wild trout presence
Author: franklin
Date: 2017/1/6 6:46:07
URL:

Quote:

k-bob wrote:
thanks franklin I like this stuff. map scan of union county bedrock from bucknell linked below; burnt-orange = tuscarora (low buffering) and tan = juniata (better sign for fish).

http://www.bucknell.edu/Images/Depts/...g/UnionCountyGeology.jpg

p 255 of kirby paper discusses buffalo and n branch buffalo creeks there:

"Fig. 5 shows several phenomena commonly found in this study. Panther Run and the North Branch of Buffalo Creek originate in the Juniata, with initially low pH values in the extreme headwaters (in organic-rich boggy areas) rising (pH>6.5 for most of their lengths) as the water flows for longer distances through the Juniata. Below the confluence of these two streams, the North Branch of Buffalo Creek flows through the Tuscarora, but its pH remains near neutral due to the Juniata-influenced headwaters. In contrast to most Tuscarora streams, the North Branch of Buffalo Creek is in an “exceptional value watershed” (PA DER, 1996) and is a Class A wilderness brook trout stream (PA F&BC, 2006) in a roadless area.
In contrast, the main branch of Buffalo Creek flows through an essentially roadless area (it is crossed by one gravel road that does not parallel the stream) in the Tuscarora for 7 km. The pH is less than 5 for at least 9 km. The main branch of Buffalo Creek is officially listed as impaired due to atmospheric deposition (PA DEP, 2004) and has no brook trout. The stream historically supported a brook trout population and had a pH of 7.0 and alkalinity of 61 mg L⁻¹ as CaCO₃ (Robbins, 1953). By 1970, this location had a pH of 5.5, and the stream was judged to have too few brook trout to be stocked due to “natural acidity” (Reed and Hoopes, 1970), which was actually the impact of atmospheric deposition that continues today (pH= 4.5 and no alkalinity)."
I also own woodland in Union within the area covered by the map on the top link. There are seven springs on the property. It's been a while since they were tested and I don't have the reports anymore. I'll have to have some more tests done. Mainly out of curiosity. There is a nice stream on the property which has two branches. It's a feeder to Buffalo Creek. These would possibly be nice brookie streams but are blocked below by an old mill dam still in place.

Both my grandfathers were born in the 1800s in Union County. Both told stories of fishing many of those streams as youngsters prior to the logging which destroyed the streams for many years. Many of those streams or stream sections held native brookies back then.

I've researched the logging history of the area more so than the geology. Having roots in the area and a piece of property that just happens to reside in the area of BU's studies makes it specially interesting.