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Subject: : Conservation

Topic: : A Lancaster County Brookie Stream

Re: A Lancaster County Brookie Stream

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URL:

Here is something I just found that scares me even more. I have highlighted the important parts and pick out from it what was important. Here is the original link:

[http://www.netl.doe.gov/publications/ ... ings/00/app-rvr00/2-6.pdf](http://www.netl.doe.gov/publications/...ings/00/app-rvr00/2-6.pdf)

"Fish Biologists also know that just as they have seen streams become more acid over the years, and the less acid tolerant fish species drop out, and finally only the Brook Trout remain - that when limed and they reverse the acidity, those fish species that compete with the Brook Trout will return. **Here and there, for perhaps ten years, they have found that the Brook Trout in stream reaches (sometimes 10 miles long) that are too acid for other fish, do astonishingly well without competition from other fish. They are fast growing with fair numbers that provides more fishing than historically.** When it continues to acidity to the point where their own reproductive success becomes limited, even the competition among themselves is reduced. However in just a few more years even the Brook Trout will die out. **If because of acidity the Creek Chub has left the stream it is important that this competitor and predator on Brook Trout be prevented from re-entry after liming. In the warmer, lower end of our Brook Trout streams the Creek Chub is favored and dominates.** The limed stream is, of course, no cooler. True "reclamation" demands "restoration" to the original "Brook Trout only" fish populations that existed in the cooler streams of the original forest. We find today if the headwater stream is cool enough no other fish species is present. **Trout Biologists also know where they have eliminated the other fish species, the Brook Trout have been able to inhabit the warmer, lower stream reach that is other-wise Creek Chub dominated with only a few larger Brook Trout present in the spring. Creek Chubs and other fish species should not be allowed to return to streams made again inhabitable by liming.** This is a great opportunity, a historical opportunity, to re-introduce if necessary Native Brook Trout from the same drainage and gene pool; or to simply allow the remaining acid tolerant Brook Trout population to expand into the lower, warmer reach. This bigger water has much more productivity and security for a more robust population. It is ironic that the Creek Chub is a "cool-water" fish with a very limited range of longitudinal distribution in a stream. They are not present when it warms only a little more. They are shortly replaced downstream by the Horneyhead Chub - without overlap. They are not found in any stream much over 50' wide. It would be fortunate if all the Creek Chubs were eliminated down to where the stream was this wide and warm, then there would be no reinvasion by Creek Chubs after liming. This could have been done quite easily on a number of larger limed streams - but it is too late - they have returned. In some places a waterfall would, and does, prevent re-entry. **This is so important a consideration that barriers (culverts, dams, etc., to upstream movement of Creek Chubs and even Brown Trout, should be part of the plan. Also if a barrier is needed, no respectable plan should be submitted without the provision, plans and funds for it.**"

I don't know what the acidity of this stream is. It is possible it will become too acidic for them to stay. Also after doing more research it seems that:

#### What Brook Trout Eat:

The food of the young brook trout is mostly small insects. Older fish eat larger invertebrates including many types of aquatic (water) insects, sideswimmers, snails, and worms. They also feed on minnows and other small fishes.

#### What eats Brook Trout:

Brook trout have few aquatic predators because few piscivorous ("fish-eating") fish live where they do. Larger trout, especially brown trout, eat smaller brook trout. They are more likely to be eaten by such fish-eating birds as herons, and kingfishers. Otters and snapping turtles also prey upon them.

#### What Chubs eat:

Almost all fish begin eating small copepods and waterfleas from the water column as larvae. So do creek chubs, but they soon begin foraging in vegetation for larval insects. As they grow, they add a greater variety of aquatic insect larvae, terrestrial (land) insect, and eventually small fish. Because they eat so many different items from different places in their habitat, they are said to be opportunistic feeders.

**What Eats Chubs:** Creek chubs are a main larval item for many predators, such as walleyes, brown trout, northern pike, largemouth bass, and smallmouth bass. Because they often school in lakes, loons, kingfishers, and mergansers also commonly eat them. Little creek chubs even have to watch out for bigger creek chubs. Not too many humans eat creek chubs, although they reportedly are tasty. Some anglers and bait dealers harvest them for bait.

Its safe to say they will fight for dominace. I see this as a very bad thing for this creek.