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Subject: : Paflyfish General Forum

Topic: : Species specific stocked trout residency revision

Re: Species specific stocked trout residency revision

Author: : Mike

Date: : 2012/2/15 9:23:42

URL:

It is apparent from our statistical scientific attempt to ferret out the causes via analysis of a multitude of variables that the reasons are complex and most likely stream and species specific. For instance, habitat characteristics accounted for only 5% of the variation. As a result, it was decided that the problem would be addressed on a stream by stream basis. One cause of poor residency in some streams is clear, however, and is probably what you would expect. Low or falling pH (to low levels) in portions of the Commonwealth that are prone to this (low alkalinities) have resulted in poor residency.

In another, more typical example, you might be surprised. As counter-intuitive as it might sound, stocked brook trout do not do well in fast moving water. They either need and seek out near-by substantial current breaks if they are not stocked directly in somewhat sluggish (eg. glides) or protected water (such as deeper pools, good pocket pools), or they move. Browns do better in that regard. Rainbows, on the other hand, will seemingly waste energy, comparatively speaking, swimming in a fast run. With the typically higher water velocities and colder water temps seen in March and early April across Pa, the stronger swimmer seems to do best. That is not to say that rainbows don't do well in sluggish streams; they do. For instance, they do very well in habitat stressed, sluggish, silty streams in Lancaster Co. They seem to have a wide range of adaptability, and that as a general statement may explain their superior performance in preseason stockings when measured across a variety of waters and stream channel features.

A personal anecdote that exemplifies the more scientific observations above is that there is a bridge over the Hockendauqua Ck in Northampton Co below which the channel configuration is such that I can readily observe the phenomenon. The bridge is over a sharp bend in the creek. The creek is stocked with all three species. The brook trout line up in the more quiescent water on the inside of the bend (where the sand accumulates). The browns are mid-channel in faster velocity water. The rainbows are lined up along the outside of the bend in the fastest velocity water.

I think the original, somewhat lengthy, report on trout residency that dealt with the variables mentioned in the first part of my response above is still available on the PFBC web site.