
Subject: : Paflyfish General Forum

Topic: : "wild" rainbows

Re: "wild" rainbows

Author: : FarmerDave

Date: : 2009/7/2 11:17:26

URL:

But, ... but, ... but ...

Ah, nevermind. 😊

Seriously.

Quote:

I think the dominance of brown trout in certain waters has everything to do with fertility. Brown trout have their genetic origins in highly fertile, typically limestone waters. They are genetically programmed to thrive in such waters. Ken Undercoffer makes an explanation in this PDF article of why, which I find persuasive. To an extent also, their preference for a higher pH chemistry keeps them from becoming dominant in the lower pH (and typically lesser fertile) waters.

Having addressed most of your points, it should, perhaps, be more clear to you where we agree and disagree.

I think that is a big part of it. However, I don't feel it is all of it.

For example. We know that brook trout can handle fairly low PH. However, Brown trout can survive at nearly as low PH, too. My personal experience has not shown this to be true, but a couple studies showed that the differences between tolerable PH levels between the two species are not that significant. Can we say that PH and fertility has a lot to do with it on the low end where the brook trout tend to dominate? Maybe to some degree, but I think there is a lot more to it.

Someone mentioned that Brown trout also dominate some larger and less fertile freestone streams. It's true. Why is that? Do we know of any larger freestone that are dominated by brook trout? I don't. Why is that?

Anyway, I feel that species size capability and several other factors are still considerable.

Larger and slower water favors the larger fish species (between competing species).

Higher gradient, fast moving ... favors the smaller.

Smaller water favors the faster to maturity and larger numbers of offspring...

The differences in temperature ranges really has more to do with amount of dissolved O₂. Brook trout require more. High gradient freestone (high O₂) are dominated by the brook trout, while further downstream (lower gradient), the same stream is dominated by browns.

Brook trout reproduce sooner in their life span and produce more offspring. that is a clear advantage in areas that see more environmental variation due to nature. Floods drought, predation, ... freestone streams.

anyway, those are just some thoughts. there are more.

I don't see how anyone could say it is just one trait that determines ALL this (and I am not saying that either of you are saying that). With the amount of variation, it can't be just one thing.