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Subject: : Paflyfish General Forum

Topic: : "wild" rainbows  
Re: "wild" rainbows  
Author: : JackM  
Date: : 2009/7/2 7:10:40  
URL:

Well, here is what I put together over the course of yesterday. I worked on it here and there to try to respond to pcray, but I have since lost interest in trying to make it fool-proof, so I'll just lay it out there for what it is worth:

Quote:

pcray1231 wrote:

You argued that browns are not larger than brookies, that the larger size was solely due to the fertility of streams in which they inhabit. We said that wasn't true, browns indeed average larger regardless of water chemistry.

But does it matter whether it has to do with growth rates, age, year of sexual maturity? That wasn't your argument, you're argument was that brookies would average as large as browns in the same water! The bottom line is that, all else being equal, browns DO average larger than brookies.

I think what I stated was that given streams of equal fertility, I have not seen authoritative claims that brown trout grow large quicker than brook trout. ["Brookies I think are as capable of growing large quickly as are browns, stream fertility being equal. I have never read anything authoritative to the contrary."] I have just now noted that afishinado's link provides evidence that this is not true. It is still unclear whether the statement in the article he posted is a claim about growth rates generally or whether it is conditioned on the effect of spawning as I subsequently noted. I have provided one link to a study suggesting that the growth rates are similar, at least in Norway under those study conditions. In addition, I stumbled on this from a Northern European location as well:

*The comparisons of sympatric\* and allopatric\*\* populations of brown trout indicated that brown trout life history was effected by brook trout presence in terms of lower growth rate, delayed maturation and increased apparent mortality. However, to definitely confirm these effects, more and larger samples are needed. **Brook trout populations clearly had shorter life histories than those of brown trout, with higher growth rates, earlier maturation and higher fecundity and mortality. This gives brook trout a higher reproductive potential compared to brown trout, something that could have a high adaptive value in small, low-productive streams where population fecundity is low.***

\* Occupying the same or overlapping geographic areas without interbreeding.

\*\*referring to organisms whose ranges are entirely separate, so that they do not occur in any one place

together.

<http://ex-epsilon.slu.se/archive/00001372/01/Ohlund.pdf>

My *argument* was never "that brookies would average as large as browns in the same water\*\*\*." As I just showed, that was a statement I made, duly qualified as a belief, based upon not having read anything to the contrary. My *argument* which led me to offer that statement of belief was that the reason we find more brown trout waters under special regulations is because brown trout waters, generally being our more fertile waters, produce large-sized trout more quickly than the less fertile waters where brook trout are more likely to dominate. ["Wild brown trout streams are generally more fertile than their brook trout counter-parts. Hence the consequential truth that wild brown trout tend to be larger or grow to large sizes sooner."] I thought you tendered your agreement to this argument, although you found explanation for larger trout in specially-regulated waters to be a function of factors other than fertility-- I think you placed primary emphasis on stream size.

\*\*\*I didn't say "same water" either, just in waters of equal fertility. I wasn't clear, not having really thought about it, that I meant specifically "two different waterways," but I do think now that it makes a difference whether it is the shared water or water exclusively occupied by one or the other species. This is because where the two species co-exist, there is a greater impact on growth rate of the less-dominant brook trout in shared waters than on the brown trout.

In any case, I am still considering the growth rate issue. But the important point for what this discussion originally involved is whether the apparent favor bestowed upon brown trout by special regulations is a result of the species of trout involved or the growth characteristics of the trout which inhabit the regulated streams.