

Correspondence with Dan Gale, Yurok Tribal Fisheries Department Senior Fish Biologist regarding Blue Creek snorkel surveys, April 2004.

Re: Blue Creek snorkel surveys

Dan Gale said:
Connie,

I certainly agree that the large numbers aid in demonstrating the value of lower Blue Creek as a water quality refugia and that is why I included them on the summary. I don't use them for the annual peak count simply because they are not Blue Creek fish - the point of the peak counts is to keep tabs on the annual Blue Creek chinook spawning run. The early season fish in lower each #1 were simply seeking refuge before continuing the migration up the river to their ultimate destination. One of the primary uses of our peak counts besides tracking Blue Creek population numbers is to provide escapement data for the Klamath-Trinity "Mega-Table" to allow for future escapement estimation for management purposes. Use of the early season refuge seekers for this purpose would be misleading as these fish should ultimately be accounted in escapement estimates elsewhere in the basin once they reach their ultimate destination.

Also, as a point of clarification on our surveys...People always seem to have questions about why we rely on peak counts as opposed to other methods used elsewhere for adult escapement. Redd and carcass survey methods employed elsewhere do not work well in Blue Creek given the late run timing of Blue Creek fish, its larger size and high variability of flow conditions after fall/winter rain events, active predation of carcasses by wildlife etc. rarely allowing these techniques to be employed on a consistent basis. The use of the counts from reach #1-4 (as opposed to all spawning reaches) is to facilitate comparison with USFWS snorkel counts from 1988-1993 (they only dove the lower four reaches), as well as access (snow and USFS road closures) problems that can hinder our ability to survey the upper three reaches with the regularity that we survey the lower four reaches. We continue to survey the upper three reaches on a bi-weekly basis as conditions and access allow an ongoing assessment of spawning levels outside of the lower four reaches. The data for chinook from the lower four reaches have proven consistent and reliable for year-to-year comparison purposes, as long as folks understand that the annual peak count does not represent an estimate of escapement to the Blue Creek basin. For a more detailed

discussion on our surveys, methods, and use and limitations of our peak count numbers, folks should see one of the two Blue Creek reports we currently have out:

Gale, D.B., T.R. Hayden, L.S. Harris, and H.N. Voight. 1998. Assessment of anadromous fish stocks in Blue Creek, lower Klamath River, California, 1994-1996. Yurok Tribal Fisheries Program, Habitat Assessment and Biological Monitoring Division Technical Report No. 4, Klamath, California.

Gale, D.B. 2003. Assessment of anadromous fish stocks in Blue Creek, lower Klamath River, California, 1997-1998. Yurok Tribal Fisheries Program, Habitat Assessment and Biological Monitoring Division Technical Report No. 11, Klamath, California.

I hope this info helps - let me know if you have any questions,
DG

Connie Shannon wrote:

Dan;

Thank you for the clarification. I will make sure that the chinook data peak counts for all years are taken from the November surveys. I will also change the peak count datasets for coho and steelhead to reflect that these counts are incidental to the chinook surveys and make a note that the surveys do not coincide with the peak of the coho and steelhead run-timing. I will also print out your comments and attach them to the data sheet you sent. I'm glad that you addressed the issue of those early season counts in

Reach 1. I've talked with two different biologists who had different opinions about how to approach those counts. One of the biologists I spoke with felt that using those counts was a good thing because it would draw attention to the fact that those lower Blue Creek pools are such valuable thermal refugia. Of course the down side of that would be that we are left wondering what was going on in the rest of the watershed. In the end I believe it is up to the biologist who is entrusted with collecting and reporting the data to decide how the data should be represented in CalFish. The comments I add to the dataset will reflect your views.

Best regards,
Connie Shannon

Dan Gale <dgale@northcoast.com 7:17:37 PM 04/13/04

Connie, I received your phone message - I would not use the big early season #'s related to the fish kill as the peak count - these fish promptly left the drainage as soon as they were able, only using the lower few pools as a temporary respite from poor water quality in the river. The peak counts for chinook in reaches #1-4 should be taken from the surveys in mid-November (this is roughly the annual timing for the peak chinook count). The peak numbers should be included in the annual peak count figure I sent you. As for coho and steelhead, I don't really rely on peak counts for these species from the fall dives, as the surveys typically do not encompass their entire run timing (especially steelhead which typically peak in March or so). The surveys are intended to enumerate chinook and we count the rest of the species that are present but don't always have the funds or survey conditions to allow us to continue through the coho or steelhead runs. Let me know if you have any questions,
DG

Dan Gale wrote:
Connie,

The numbers are accurate as they reflect the fish that moved up into the lower few pools of Blue Creek to get out of the Klamath during and after the big fish kill in fall 2002...similar numbers of chinook and coho were observed during the two previous surveys. Very few if any of those fish moved up any further into Blue Creek but rather just tried to seek interim refuge. Ultimately they either moved back to the river and continued their migration or else perished as entering Blue Creek was too little too late. I guess I should put an asterisk on those numbers in the table with a footnote explaining this to avoid future confusion. As far as the steelhead are concerned, I presume that the majority of these fish were from the typical Trinity River fall SH run.

DG

Connie Shannon wrote:

Dan;
I'm looking over the Blue Creek fall survey results and I'm seeing a peak count of 707 adult and 713 half-pounder steelhead in reach 1 on 10/30/2002. If this is accurate then WOW! But since this is so many more fish than were seen in subsequent weeks I thought it would be best to verify it with you.

Best regards,
Connie Shannon
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Northern California North Coast Region
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2440 Athens Ave.
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Dan Gale wrote: <dgale@northcoast.com 1:04:49 PM 03/26/04

Connie, Attached are the files you requested. Note that we no longer conduct summer surveys in Blue Creek but we have continued annual fall surveys and also have been conducting spring steelhead surveys in Blue and Terwer Creeks as conditions allow, so I have included this data as well. Let me know if you have any questions or additional information needs. Dan Gale
Yurok Tribal Fisheries Program

Connie Shannon wrote:

Mr. Gale;

You had previously sent Blue and Terwer Creek adult spawning survey tables. And a file with peak chinook count data for Blue Creek reaches #1-4 for 1988-2001. I was hoping that you might send me the results of your surveys in 2002 (fall/winter surveys) and 2003 (summer surveys).

I've appreciated the information that you have provided in the past and look forward to reading about the surveys this past year.

Much obliged,
Connie Shannon
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