

## **Obegi, Doug**

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**From:** Killam, Doug@Wildlife  
**Sent:** Monday, May 24, 2021 2:46 PM  
**To:** Harris, Michael R.@Wildlife; Roberts, Jason@Wildlife; Meyers, Erica@Wildlife; Davis-Fadtke, Kristal@Wildlife; Kundargi, Kenneth@Wildlife; Grover, Joshua@Wildlife  
**Cc:** Killam, Doug@Wildlife  
**Subject:** Winter-run Chinook monitoring update May 24, 2021

Hi all,

May 24, Winter-run status update:

Despite water temperatures remaining in the 56- 57 degree range at Keswick Dam (see temps below), we continue to observe a large proportion of unspawned mortalities and unusual swimming behaviors leading to ongoing concern with the bulk of the winter-run population still getting ready to spawn. Currently we have observed 52 fresh carcasses and 31 of these have been unspawned (60%). For females specifically we have observed 26 fresh fish and 18 have been unspawned (70%). Observations include the following comments from crews:

*May 22: On reach 2 we picked up what is assumed to be a spring run male, unspawned, milt sack was still very immature and unripe. and the kype was undeveloped and very chrome fish. Took photos of both sides of it's gills, nothing too far out of the norm for those.*

*We witnessed a school of about 12 dying unspawned salmon swimming together near the surface of the water just north of the typical lunch spot on reach 1 (there is a bay on the west side of the river with a giant tringle piece of metal in it just outside of that bay were the fish).... Very Unusual behavior*

*Also forgot to mention the fileted fish we found yesterday was right at the second launch at Bonnyview.* Referencing possible poaching of either WR or Spring run salmon, included phot of filleted out fresh chrome fish, inquiring about law enforcement patrol opportunities.

*Austing, 5/18:*

*Observed a lethargic, dark, unspawned female swimming downstream near the top of the reach.*

*Ricketts, 5/17*

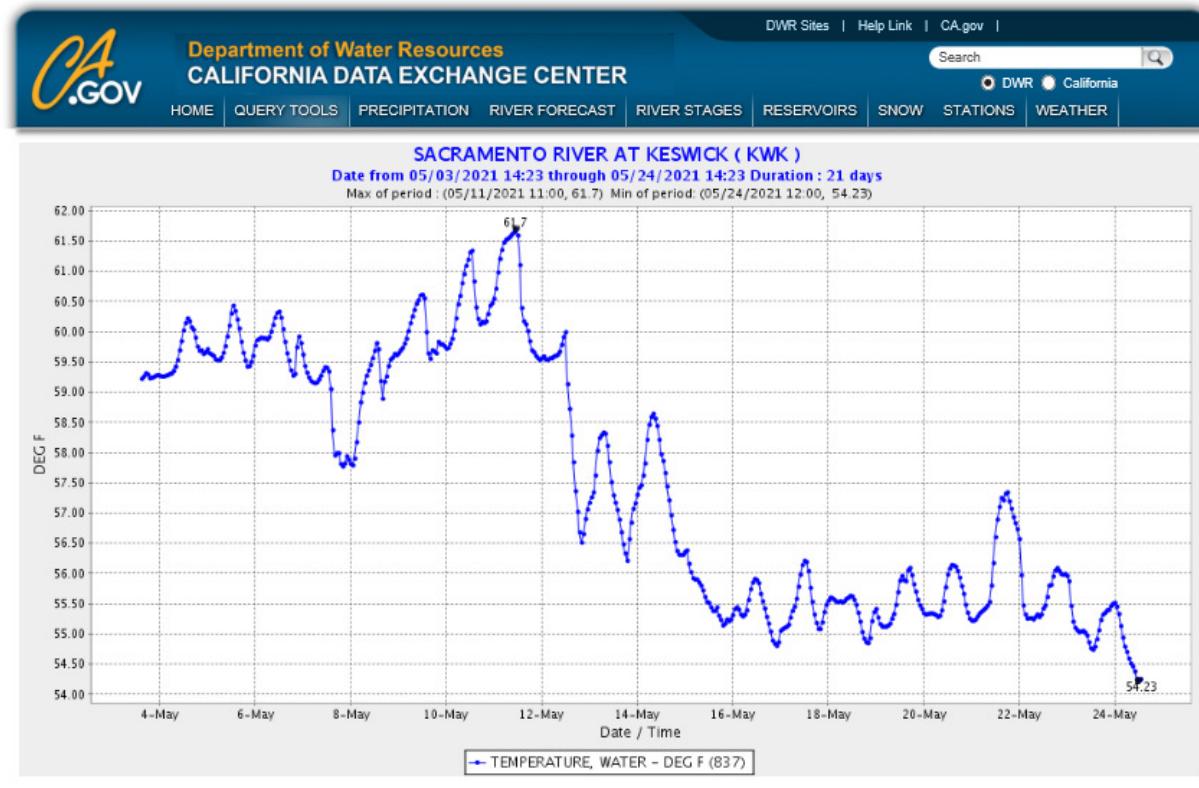
*8 total today with 4 unspawned females.*

*Many "fungus heads" swimming around, especially on reach 1, with some more lively than others.*

*Brownfield, 5/16*

*one hatchery male the day before on reach 4. Fungus.*

Below is pic of water temps from Keswick showing decrease in water temps since May 12-13.

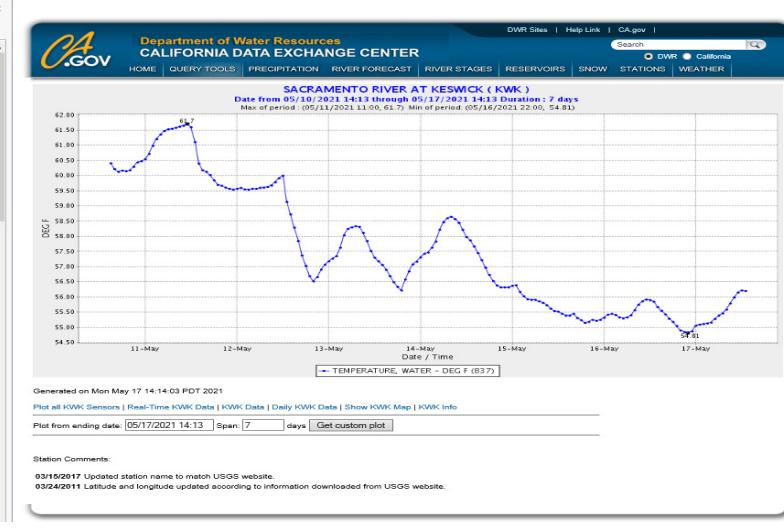


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**From:** Killam, Doug@Wildlife  
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**Subject:** Winter-run Chinook monitoring update May 17, 2021

Hi all,  
 Winter run water temps in Keswick area have recently cooled to below 57 degrees.



Large schools of salmon continue to be observed below Keswick Dam on the surface of the river. Crews continue to observe many salmon in unspawned condition with fungus covering some portion of their bodies, including their head and eyes. It is doubtful that these individuals will survive to spawn. On Friday notes from the field survey crews were as follows (USFWS email):

-About 10 new fish today, with 4 heads taken, 4 unspawned, and 2 Keswick Floy tagged.

- One full head fungussed male Chinook and 2 trout observed zombie swimming; with trout staying near surface.
- Two Chinook observed with most of head fungussed and both made an attempt to swim away from the boat. Both fish only made it about 5-10 feet before they started "death-throws" like they were trying to shake a hook or like they were in CNFH CO<sub>2</sub> bath (suffocating). One of these fish was Keswick Floy tagged.
- Many (6-12) Chinook observed mostly healthy with maybe only minor fungus, but holding in the shallows and slack current; like they just didn't have the strength to hold in normal deep pools. One of these fish was Keswick Floy tagged.
- Dozens of fungus heads seen swimming about in all depths. As Mike commented, looks like it is late-July or August with all the fungussed fish.

That report was from Friday, crews today noted many additional fungused fish, and two fish with fungus abscess on the mouth area exhibiting strange twitching behavior as they swam (appearing like they were hooked on a fishing rod). The two fish appeared otherwise normal except for the weird behavior and small fungus patches near lips.

To date, 47 total carcasses have been observed, of an 18 fresh female carcasses encountered, 14 have been unspawned. The average unspawned female percentage is 1.7% for years 96-20. **Currently we are at 78% unspawned rate.** The average for an entire year is 13 unspawned females carcasses with a high of 66 in 2005 and a low of zero in 2000. The date May 17<sup>th</sup> represents about 2% of the cumulative total fresh fish seen each year (04-20), so we have a long way to go.

Thanks Doug

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