

Arcata Fish & Wildlife Office, Fish and Aquatic Conservation Program

Trinity River Mainstem Redd Survey Update December 20, 2024

The <u>Arcata Fish and Wildlife Office</u> along with the <u>California Department of Fish and Wildlife</u>, <u>Yurok</u> <u>Tribal Fisheries Program</u>, <u>Hoopa Valley Tribal Fisheries Department</u>, and <u>Shasta-Trinity National Forest</u> survey the mainstem Trinity River to recover salmonid carcasses and count and map Chinook Salmon (<u>Oncorhynchus tshawytscha</u>) redds. The distribution of Chinook Salmon spawning is expected to change in response to rehabilitation efforts of the <u>Trinity River Restoration Program</u> and to the relative run sizes of natural- and <u>Trinity River Hatchery</u>-origin fish. Spawning surveys are attempted weekly between <u>Lewiston Dam</u> and the North Fork Trinity River (Reaches 1–7) and every other week on the survey reaches downstream of the North Fork Trinity River (Figure 1, Table 1).

This update provides preliminary data on this season's redd observations as of December 20 (Table 1). Figure 2 compares preliminary 2024 cumulative redd counts in Reaches 1–10 with the previous 22 years (2002–2023). Redds constructed by Chinook and Coho salmon are not differentiated until the end of the season when they are apportioned by species (Chinook or Coho salmon) and origin (hatchery or natural) using carcass data.

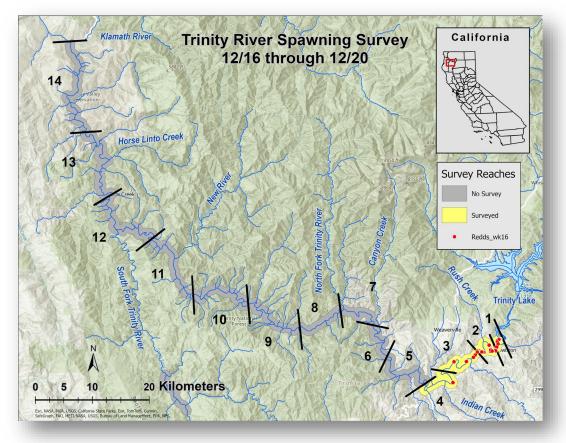


Figure 1. Mainstem Trinity River salmon redds mapped during the December 16–20 surveys.



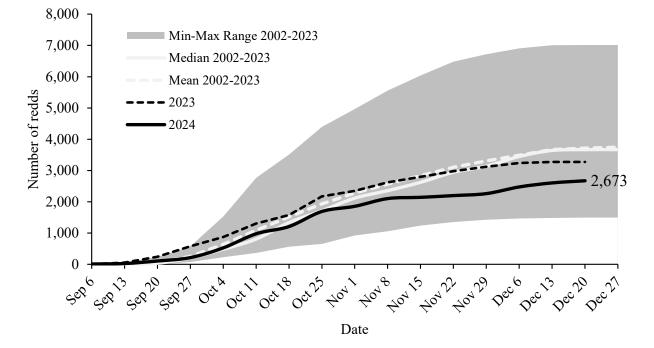


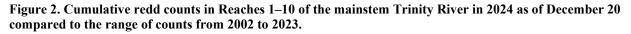
| Week start | Reach | | | | | | | | | | | | | | |
|---------------|-------|-----|-----|-----|-----|-----|-----|---|-----|-----|----|----|----|----|------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | _ Total |
| Sep 2 | 4 | 2 | - | - | - | 0 | 1 | | | | | | | | 7 |
| Sep 9 | 4 | 3 | 3 | 3 | 1 | 0 | 0 | | 0 | 0 | | | | | 14 |
| Sep 16 | 35 | 19 | 18 | 8 | NS | 1 | 0 | | | | | 0 | 0 | 0 | 81 |
| Sep 23 | 21 | 23 | 16 | NS | 35 | 6 | 5 | | 2 | 0 | | | | | 108 |
| Sep 30 | 80 | 55 | 30 | 67 | 47 | 21 | 11 | | | | | 0 | 0 | 0 | 311 |
| Oct 7 | 22 | 45 | 36 | 84 | 55 | 61 | 36 | | 72 | 42 | | | | | 453 |
| Oct 14 | 21 | 22 | 31 | 52 | NS | 74 | 32 | | | | | 24 | 12 | NS | 268 |
| Oct 21 | 8 | 24 | 33 | 61 | 72 | 40 | 25 | | 121 | 99 | | | | | 483 |
| Oct 28 | 45 | 15 | 15 | NS | 43 | 32 | 15 | | | | | 60 | 65 | NS | 290 |
| Nov 4 | 25 | 13 | 13 | 14 | NS | 30 | 18 | | 81 | 54 | | | | | 248 |
| Nov 11 | 18 | 18 | 4 | NS | NS | NS | NS | | | | | NS | NS | NS | 40 |
| Nov 18 | 29 | 22 | 2 | NS | NS | 2 | 1 | | NS | NS | | | | | 56 |
| Nov 25 | 36 | 18 | 9 | NS | NS | 0 | 0 | | | | | NS | NS | NS | 63 |
| Dec 2 | 25 | 48 | 44 | 41 | 49 | 0 | 3 | | 2 | 2 | | | | | 214 |
| Dec 9 | 79 | 33 | 7 | 4 | 6 | - | - | | | | | 2 | 0 | 3 | 134 |
| Dec 16 | 24 | 34 | 10 | 1 | - | - | - | | | | | - | - | - | 69 |
| Total | 476 | 394 | 271 | 335 | 308 | 267 | 147 | | 278 | 197 | | 86 | 77 | 3 | 2,839 |

Table 1. Preliminary count of redds by reach from the fall 2024 mainstem Trinity River redd survey as of December 20. Reach 8 (Pigeon Point Run) and Reach 11 (Burnt Ranch Gorge) are not surveyed due to abundant whitewater.



These data are preliminary and subject to revision.





To access the latest version of this report on-line, see <u>https://www.fws.gov/library/collections/arcata-fac-salmon-spawning-survey-data-klamath-and-trinity-rivers</u> and click on 'Trinity River Redd Survey Update - <date>'



The spawning success (i.e., pre-spawn mortality versus partially and fully spawned) of female salmon in the Trinity River are tracked during the spawn surveys. Only 'fresh' carcasses, those that exhibit minimal decay, are used for assessing pre-spawn mortality because carcasses with extensive decay may not retain unspawned eggs. As of December 20, 448 fresh female Chinook Salmon carcasses have been observed, 8 (1.8%) of which were unspawned.

For more information regarding mainstem Trinity River redd surveys, please contact Steve Gough (<u>steve_gough@fws.gov</u>).



Photo by M. Bradford, CDFW

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