

Arcata Fish & Wildlife Office, Fish and Aquatic Conservation Program

Trinity River Mainstem Redd Survey Update November 24, 2023

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 the 2023 season's redd observations as of November 24 (Table 1). Figure 2 compares preliminary cumulative redd counts to date in Reaches 1–10 with the previous 21 years (2002–2022). 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.

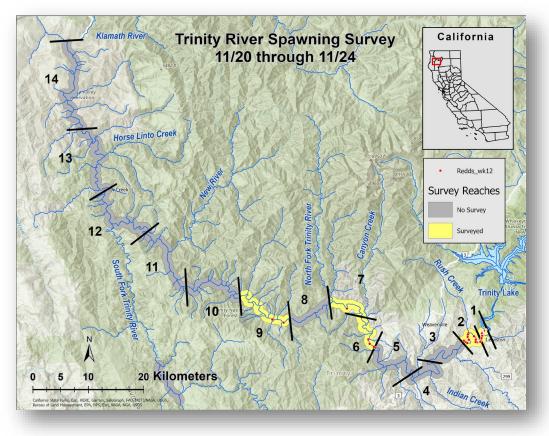


Figure 1. Mainstem Trinity River salmon spawn survey area and redds for this week's update.





Week	Reach														
start	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total
Sep 3	1	3	0	0	0	0	0								4
Sep 10	15	23	7	3	1	0	0		0	0					49
Sep 17	26	63	49	37	12	0	0					0	0	0	187
Sep 24	56	76	71	52	60	9	8		3	0					335
Oct 1	25	42	40	43	54	56	34					3	1	NS	298
Oct 8	10	36	40	54	44	39	49		117	46					435
Oct 15	5	16	24	62	72	57	38					39	37	7	357
Oct 22	4	30	26	14	74	105	66		198	77					594
Oct 29	11	20	21	22	39	32	30					85	183	NS	443
Nov 5	30	33	15	20	NS	62	7		53	51					271
Nov 12	79	36	19	13	27	4	3					73	77	91	422
Nov 19	119	50	NS	NS	NS	7	1		4	NS					181
Nov 26	-	-	-	-	-	-	-					-	-	-	-
Dec 3	-	-	-	-	-	-	-		-	-					-
Dec 9	-	-	-	-	-	-	-					-	-	-	-
Total	381	428	312	320	383	371	236		375	174		200	298	98	3,576

Table 1. Preliminary count of redds by reach from the fall 2023 mainstem Trinity River redd survey as of November 24. Reach 8 (Pigeon Point Run) and Reach 11 (Burnt Ranch Gorge) are not surveyed due to abundant whitewater.

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'NS' = no survey
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These data are preliminary and subject to revision.

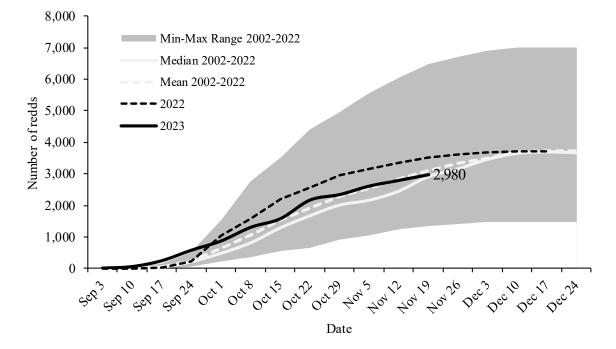


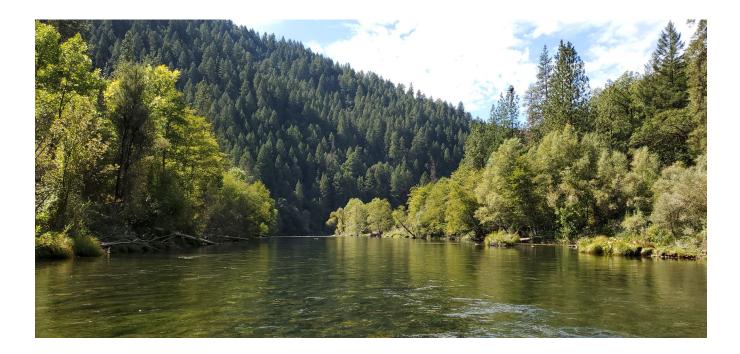
Figure 2. Cumulative redd counts in Reaches 1–10 of the mainstem Trinity River in 2023 as of November 24 compared to the range of counts from 2002 to 2022.

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 November 24, 618 fresh female Chinook Salmon carcasses have been observed, 8 (1.3%) of which were pre-spawn mortalities.

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



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