



Trinity River Mainstem Redd Survey – 2019 Summary

The [Arcata Fish and Wildlife Office](#) along with the [California Department of Fish and Wildlife](#), [Yurok Tribal Fisheries Program](#), [Hoopa Valley Tribal Fisheries Department](#), and [Shasta-Trinity National Forest](#) survey the mainstem Trinity River to recover adult salmonid carcasses and count and map Chinook Salmon (*Oncorhynchus tshawytscha*) redds. The distribution of Chinook Salmon spawning is expected to change in response to rehabilitation efforts of the [Trinity River Restoration Program](#) and to the relative run sizes of natural- and [Trinity River Hatchery](#)-origin fish. Spawning surveys were attempted weekly between [Lewiston Dam](#) 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 summary provides preliminary data on this season's redd observations, which concluded on December 17 (Table 1). Figure 2 compares 2019 cumulative redd counts in Reaches 1–10 with the previous 17 years (2002–2018). Redds constructed by Chinook and Coho salmon are not differentiated until after the season when they are apportioned by species (Chinook or Coho salmon) and origin (hatchery or natural) using carcass data.

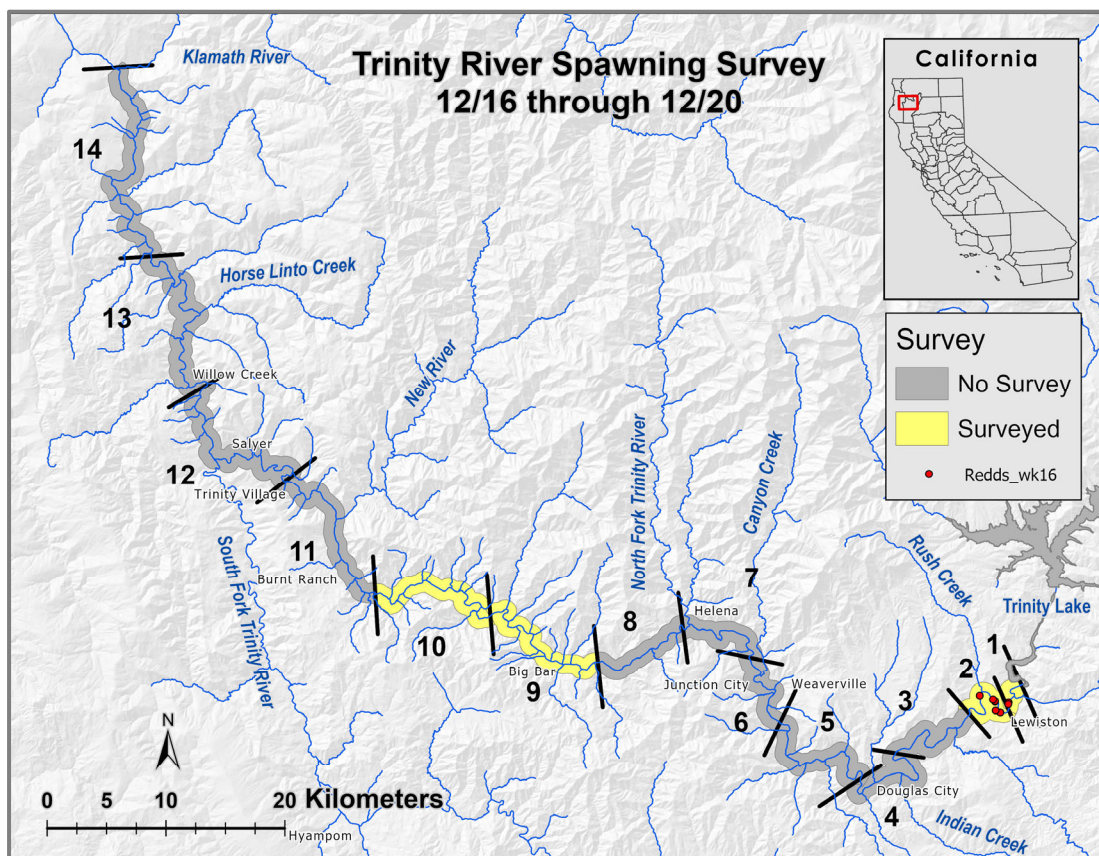


Figure 1. Mainstem Trinity River salmon spawn survey area with redds observed during the final survey week.



Table 1. Preliminary count of redds by reach from the fall 2019 mainstem Trinity River redd survey. Reach 8 (Pigeon Point Run) and Reach 11 (Burnt Ranch Gorge) are not surveyed due to abundant whitewater.

Week start	Reach														Total
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	
Aug 26	0														0
Sep 2	0	0	NS	NS	NS	NS	NS								0
Sep 9	5	0	1	4	0	0	0								10
Sep 16	24	20	3	0	3	0	0		0	0					50
Sep 23	70	25	9	7	6	0	0					0	NS	NS	117
Sep 30	30	51	8	9	30	0	11		1	2					142
Oct 7	67	36	28	22	41	11	14					3	0	0	222
Oct 14	16	48	21	16	31	20	37		54	19					262
Oct 21	1	8	9	10	9	9	44					3	2	0	95
Oct 28	4	2	17	10	19	4	37		78	25					196
Nov 4	16	18	4	11	4	10	4					9	17	1	94
Nov 11	36	29	18	15	2	7	15		40	20					182
Nov 18	16	14	8	10	5	11	9					6	13	3	95
Nov 25	7	1	NS	NS	1	4	2								15
Dec 2	1	13	7	4	1	0	0		6	11		1			44
Dec 9	2	7	3	1	3	0	0						0	0	16
Dec 16	2	7							0	0					9
Total	297	279	136	119	155	76	173		179	77		22	32	4	1,549

'NS' = no survey

These data are preliminary and subject to revision.

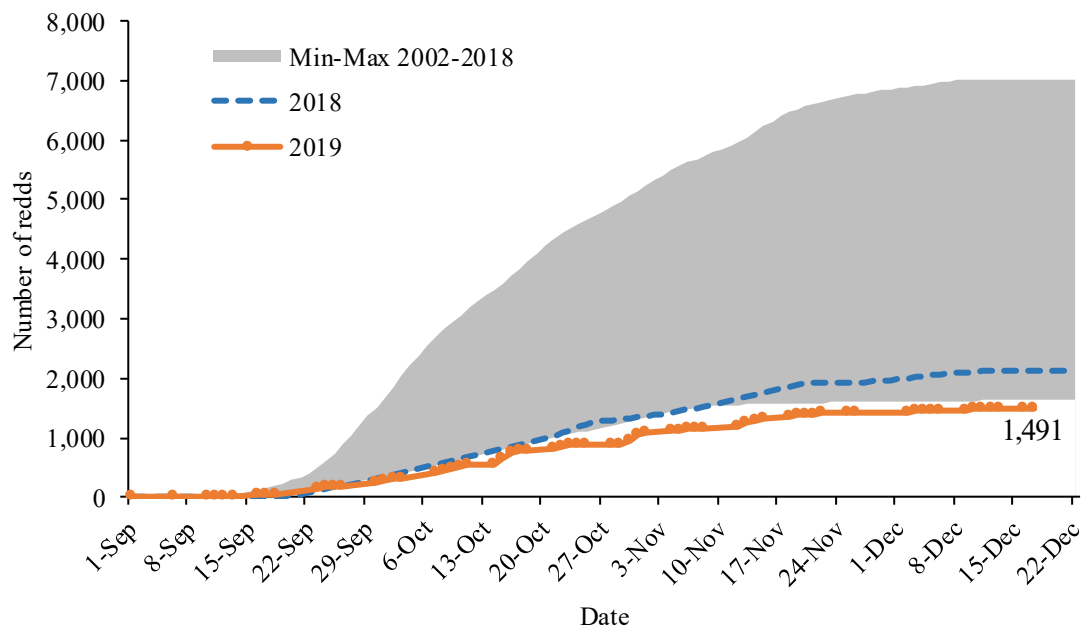


Figure 2. Cumulative redd counts in Reaches 1–10 (Reach 8 excluded) of the mainstem Trinity River in 2019 compared to 2018 and the range of counts from 2002 to 2018.

We track the spawning success (i.e., pre-spawn mortality versus partially and fully spawned) of female salmon in the Trinity River during redd 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. This season, 318 fresh female Chinook Salmon carcasses were inspected, 11 (3.5%) of which were pre-spawn mortalities.

For more information regarding mainstem Trinity River redd surveys, please contact Steve Gough (707-825-5197; steve_gough@fws.gov).



Photo of the week: This concludes the 2019 spawning survey season. Until next year...

To access the latest version of this report on-line, see http://www.fws.gov/arcata/fisheries/project_updates_new.html and click on 'Trinity River Spawning Surveys Update <date>'