

## Arcata Fish & Wildlife Office Fisheries Program

## Trinity River Mainstem Redd Survey Update October 11, 2019

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 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 size of natural- vs. Trinity River Hatchery-origin fish. Spawning surveys are 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 update provides preliminary data on this season's redd observations as of October 11 (Table 1). Figure 2 compares preliminary 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 the end of the season when they are apportioned by species (Chinook or Coho salmon) and origin (hatchery or natural) using carcass data.

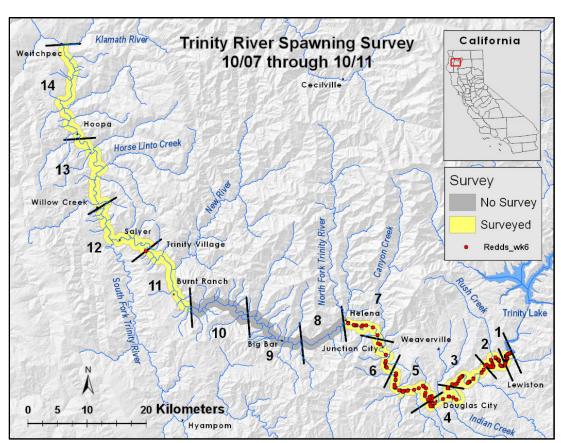


Figure 1. Mainstem Trinity River salmon spawn survey area with redds observed this week.

















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	Reach														
start	01	02	03	04	05	06	07	08	09	10	11	12	13	14	Total
08/26	0														0
09/02	0	0	NS	NS	NS	NS	NS								0
09/09	5	0	1	4	0	0	0								10
09/16	24	20	3	0	3	0	0		0	0					50
09/23	70	25	9	7	6	0	0					0	NS	NS	117
09/30	30	51	8	9	30	0	11		1	2					142
10/07	67	36	28	22	41	10	14					3	0	0	221
10/14	-	-	-	-	-	-	-		_	-					-
10/21	-	-	-	-	-	-	-					-	-	-	-
10/28	-	-	-	-	-	-	-		-	-					-
11/04	-	-	-	-	-	-	-					-	-	-	_
11/11	-	-	-	-	-	-	-		-	-					-
11/18	-	-	-	-	-	-	-					-	-	-	-
11/25	-	-	-	-	-	-	-		-	-					-
12/02	-	-	-	-	-	-	-					-	-	-	
12/09	-	-	-	-	-	-	-		-	-					-
12/16	-		-	-	-	-	-					-	-	-	-
Total	196	132	49	42	80	10	25		1	2		3	0	0	540

'NS' = no survey

These data are preliminary and subject to revision.

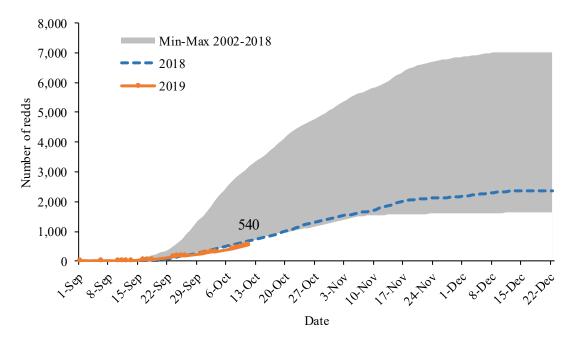


Figure 2. Cumulative redd counts in Reaches 1–10 (Reach 8 excluded) of the mainstem Trinity River in 2019 as of October 11 compared to 2018 and the range of counts from 2002 to 2018.

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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. As of October 11, 120 fresh female Chinook Salmon carcasses have been inspected, 6 (5.0%) 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).

