



Shasta and Scott River Juvenile Salmonid Outmigration Monitoring

In-Season Update JW 24

June 20, 2025

Since 2001, the California Department of Fish and Wildlife has operated rotary screw traps (RST) on the Scott and Shasta Rivers to estimate abundances of out-migrating Chinook Salmon (*Oncorhynchus tshawytscha*), Coho Salmon (*Oncorhynchus kisutch*) and rainbow trout/steelhead (*Oncorhynchus mykiss*). The Scott River RST (8ft cone) is located approximately 7 river kilometers (RK) upstream from the confluence with the Klamath River, while the Shasta River RST (5ft cone) is located approximately 0.2 RK from the confluence with the Klamath River.

The data presented below are preliminary and subject to revision. This update provides an in-season summary of weekly and year-to-date (YTD) expanded raw catch and trap efficiency (obtained from mark recapture trials) of Chinook Salmon, Coho Salmon, and *O. mykiss*. Expanded raw catch is not necessarily indicative of abundance and should not be used to draw inferences on temporal abundance. **Preliminary** cumulative weekly abundance estimates will be provided using methods described in Carlson et al. (1998). These estimates will only be provided when trap efficiencies meet thresholds related to the number of marked fish released (see Figure 1 in Carlson et al. 1998).

SHASTA RIVER

Operational Updates

- The Shasta River RST started operating on January 31, 2025.
- Shasta RST operations are reduced to 5 days a week this season given efficiencies tend to be higher, and fewer days are lost to high discharge compared to the Scott River RST.
- The Shasta RST was not operational during JW 24 due to high water temperatures.
- 2024 operations on the Shasta RST officially ceased at the end of JW 24 which ended on June 17th.

MARK RECAPTURE PRELIMINARY ABUNDANCE ESTIMATES

Chinook Salmon

1. Age 0+ Chinook Salmon

- a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 1).
 - i. Season-to-date expanded catch for age **0+ Chinook Salmon** is **129,864** (Table 1).
- b. We have no preliminary population estimate for JW 24 (Table 1).

TOTAL CATCH

Chinook Salmon

- 1. Age **1+ Chinook Salmon**
 - a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 1).
 - i. Season-to-date expanded catch for age **1+ Chinook Salmon** is **21** (Table 1).

Coho Salmon

- 1. Age **0+ Coho Salmon**
 - a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 1).
 - i. Season-to-date expanded catch age **0+ Coho Salmon total** is **177** (Table 1).
- 2. Age **1+ Coho Salmon**
 - a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 1).
 - i. Season-to-date expanded catch age **1+ Coho Salmon total** is **82** (Table 1).

O. mykiss

- 1. Age **0+ *O. mykiss***
 - a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 1).
 - i. Season-to-date expanded catch age **0+ *O. mykiss* total** is **793** (Table 1).
- 2. Age **1+ *O. mykiss***
 - a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 1).
 - i. Season-to-date expanded catch age **1+ *O. mykiss* total** is **51** (Table 1).
- 3. Age **2+ *O. mykiss***
 - a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 1).
 - i. Season-to-date expanded catch age **2+ *O. mykiss* total** is **286** (Table 1).
- 4. Age **3+ *O. mykiss***
 - a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 1).
 - i. Season-to-date expanded catch age **3+ *O. mykiss* total** is **15** (Table 1).

Table 1. Rotary screw trap expanded raw catch, trap efficiency, and number of days fished for the last week and season-to-date in 2025 on the Shasta River.

Shasta River	JW 24 June 11 – June 17, 2025				Season-to-date		
	Expanded Raw Catch	Efficiency	Preliminary Population Estimate	No. days fished	Expanded Raw Catch	Efficiency	No. days fished
Chinook 0+	---	---	---	0	129,864	14%	79
Chinook 1+	---	---	---	0	21	0%	79
Coho 0+	---	---	---	0	177	---	79
Coho 1+	---	---	---	0	82	3%	79
<i>O. mykiss</i> 0+	---	---	---	0	793	11%	79
<i>O. mykiss</i> 1+	---	---	---	0	51	11%	79
<i>O. mykiss</i> 2+	---	---	---	0	286	2%	79
<i>O. mykiss</i> 3+	---	---	---	0	15	0%	79

Notes: Raw catch numbers have been expanded for 7 days. Number of days fished/week can vary due to a combination of environmental conditions and staffing. Raw catch numbers are not necessarily indicative of actual abundance and as such should not be used to draw inferences on temporal abundance. Raw catch numbers are not population estimates.

--- = No Data

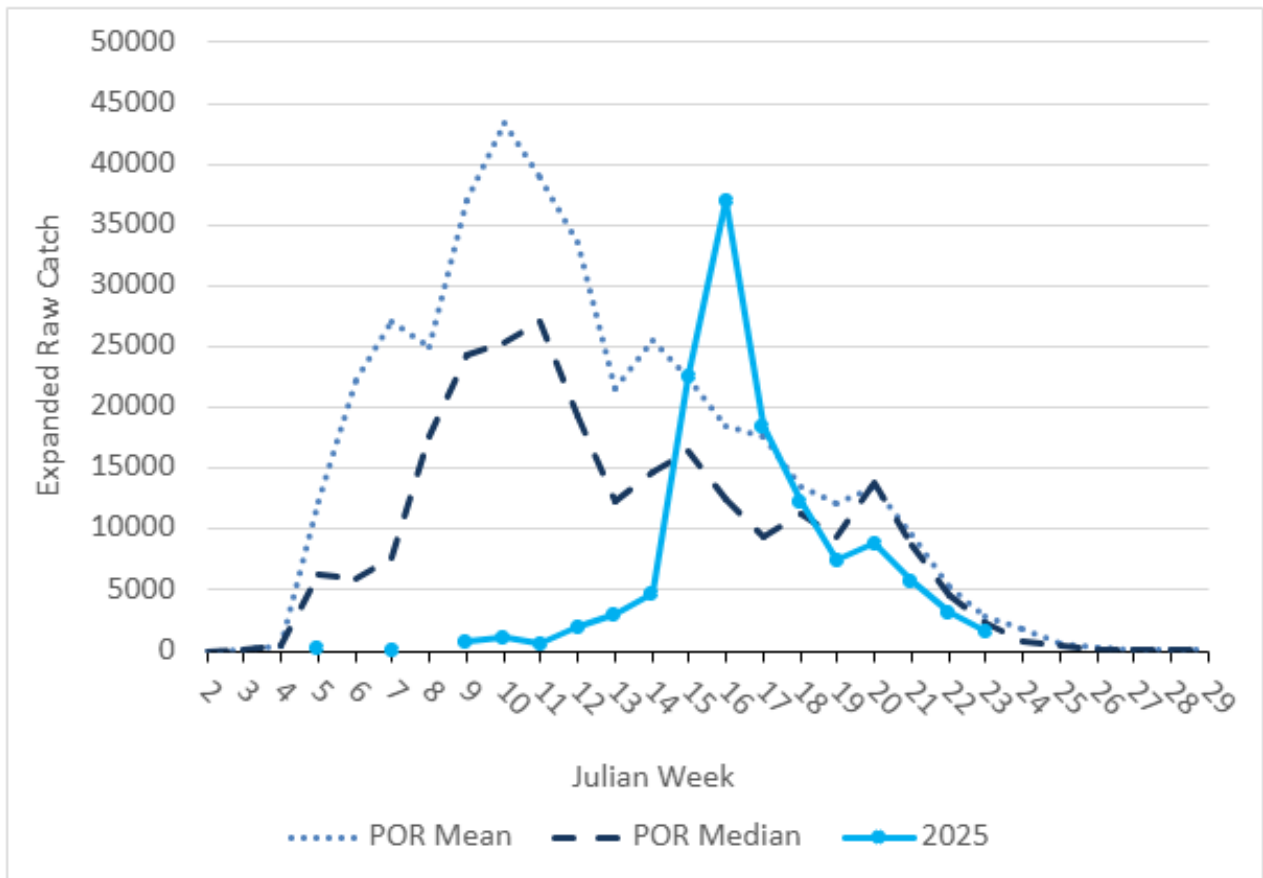


Figure 1. Period of record data comparison for Chinook 0+ on the Shasta River. The period of record data spans from 2002-2024. Data gaps in the lines indicate weeks that were not fished. Refer to the operational notes for information regarding these weeks.

SCOTT RIVER

Operational Updates

- The Scott River 8-foot RST installation was completed on January 29, 2025, with assistance from the Karuk Tribe Fisheries Department.
- The Scott RST became operational on February 12th, 2025.
- Operations on the Scott RST took a pause this week waiting for a modification of our take numbers. Operations will resume for JW 25.

MARK RECAPTURE PRELIMINARY ABUNDANCE ESTIMATES

Chinook Salmon

1. Age **0+** Chinook Salmon

- c. We have no data for catch in JW 24 ending on June 17, 2025 (Table 2).
 - i. Season-to-date expanded catch for age **0+ Chinook Salmon** is **356** (Table 2).
- d. Age **0+ Chinook Salmon** data are not yet sufficient to produce preliminary population estimates for 2025 (Figure 1 in Carlson et. al 1998; Table 2).

TOTAL CATCH

Chinook Salmon

- 2. Age **1+ Chinook Salmon**
 - a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 2).
 - i. Season-to-date expanded catch for age **1+ Chinook Salmon** is **18** (Table 2).

Coho Salmon

- 3. Age **0+ Coho Salmon**
 - a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 2).
 - i. Season-to-date expanded catch age **0+ Coho Salmon total** is **41** (Table 2).
- 4. Age **1+ Coho Salmon**
 - a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 2).
 - i. Season-to-date expanded catch age **1+ Coho Salmon total** is **911** (Table 2).
- 5. Age **2+ Coho Salmon**
 - a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 2).
 - i. Season-to-date expanded catch age **2+ Coho Salmon total** is **4** (Table 2).

O. mykiss

- 6. Age **0+ *O. mykiss***
 - a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 2).
 - i. Season-to-date expanded catch age **0+ *O. mykiss* total** is **27** (Table 2).
- 7. Age **1+ *O. mykiss***
 - a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 2).
 - i. Season-to-date expanded catch age **1+ *O. mykiss* total** is **834** (Table 2).
- 8. Age **2+ *O. mykiss***
 - a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 2).
 - i. Season-to-date expanded catch age **2+ *O. mykiss* total** is **64** (Table 2).

9. Age 3+ *O. mykiss*

- a. We have no data for catch in JW 24 ending on June 17, 2025 (Table 2).
 - i. Season-to-date expanded catch age 3+ *O. mykiss* total is 0 (Table 2).

Table 2. Rotary screw trap expanded raw catch, trap efficiency, and number of days fished for the last week and season-to-date in 2025 on the Scott River.

Scott River	JW 24 June 11 – June 17, 2025				Season-to-date		
	Expanded Raw Catch	Efficiency	Preliminary Population Estimate	No. days fished	Expanded Raw Catch	Efficiency	No. days fished
Chinook 0+	---	---	---	0	356	0%	64
Chinook 1+	---	---	---	0	18	0%	64
Coho 0+	---	---	---	0	41	---	64
Coho 1+	---	---	---	0	911	1%	64
Coho 2+	---	---	---	0	4	0%	64
<i>O. mykiss</i> 0+	---	---	---	0	27	---	64
<i>O. mykiss</i> 1+	---	---	---	0	834	3%	64
<i>O. mykiss</i> 2+	---	---	---	0	64	0%	64
<i>O. mykiss</i> 3+	---	---	---	0	0	---	64

Notes: Raw catch numbers have been expanded for 7 days. Number of days fished/week can vary due to a combination of winter weather and staffing. Raw catch numbers are not necessarily indicative of actual abundance and as such should not be used to draw inferences on temporal abundance. Raw catch numbers are not population estimates.

--- = No Data

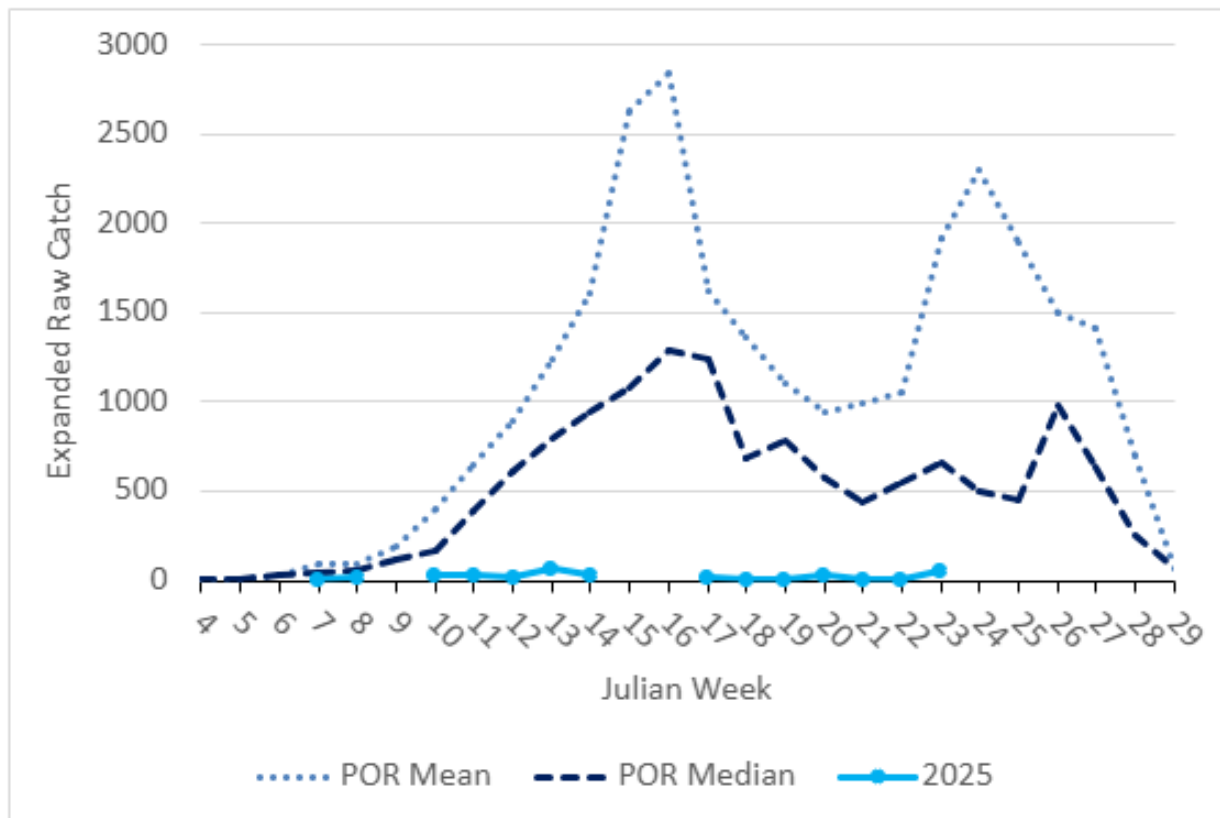


Figure 2. Period of record data comparison for Chinook 0+ on the Scott River. The period of record data spans from 2002-2024. Data gaps in the lines indicate JW that was not fished. Refer to the operational notes for information regarding these weeks.

Literature Cited

Carlson, S. R., Coggins, L. G., & Swanton, C. O. (1998). A Simple Stratified Design for MarkRecapture Estimation of Salmon Smolt Abundance. In Alaska Fishery Research Bulletin (Vol. 5, Issue 2). <http://www.state.ak.us/adfg/geninfo/pubs/afrb/afrbhome.htm>