



## Klamath River Outmigrant Monitoring Update — June 28, 2024

Synopsis: The outmigration of juvenile salmonids is monitored annually on the mainstem Klamath River by the USFWS Arcata Fish and Wildlife Office (AFWO), the Karuk Tribe of California, and the Yurok Tribe of California. The objectives of this collaborative project are to:

1. Estimate the weekly abundance of juvenile Chinook Salmon and collect pertinent biological data such as fork length and presence of clinical signs of disease at three selected locations on the mainstem Klamath River.
2. Examine subsamples of Chinook Salmon, Coho Salmon, and steelhead for external disease indicators and collect, preserve, and deliver weekly-stratified, random samples of young-of-the-year (YOY) Chinook Salmon to the Service's California–Nevada Fish Health Center (CA–NV FHC) for conducting qPCR assays to estimate *Ceratonova shasta* infection rate in the outmigrant population.
3. Collect relative abundance and biological data on Coho Salmon and steelhead at the four locations on the mainstem Klamath River.

Information generated by this study are used for a variety of purposes, including stock-recruitment analyses, to inform flow management decisions, to further refine a fish disease model, and to validate and calibrate the S3 (Stream Salmonid Simulator) Chinook Salmon production model, among others.

Monitoring is conducted at three sites on the mainstem Klamath River between Iron Gate Dam (IGD; rkm 309.65) and the Trinity River confluence (rkm 64.3). The upstream-most site is the 'I-5 Trap Site' (rkm 293.55), which is positioned on the left bank downstream of the Carson Creek confluence and upstream of the I-5 bridge river crossing. The 'Kinsman Trap Site' (rkm 237.55–238.56) consists of two traps separated by ~1km. The upstream trap is located on the left bank of the main channel downstream of the confluence of Horse Creek. The downstream trap is located on the left bank is positioned in a side channel on the left bank just upstream of the Kinsman Creek confluence. The 'Weitchpec Trap Site' (rkm 65) is the farthest downstream and is 0.7 km upstream of the Trinity River confluence behind the Yurok Tribal office in Weitchpec, California. Monitoring at 'Bogus Trap Site' (rkm 307.75), used in previous years, will not be conducted in 2024 due to dam removal operations.

Sampling at the I-5 Trap Site is conducted using two in-line 8-ft diameter rotary screw traps (RST). The Kinsman Trap Site consists of one 8-ft diameter RST upstream and one 5-ft diameter RST in the downstream side channel. The Weitchpec trap site has one 8-ft diameter RST on the left bank and may additionally use one or two 3.1-m by 1.6-m frame nets on the right bank. Traps are typically operated four nights per week (Monday through Thursday) and checked once daily while in operation. Trapping began the week of March 4 [Calendar Week (CW) 10] at the I-5 and Kinsman sites and May 6 (CW 19) at the Weitchpec site in 2024. *Trapping concluded for the season at the I-5 and Kinsman sites June 14 (CW 24). Therefore, only catch data from the Weitchpec trap site will be updated for this and the remaining updates this season.*

This project update provides an in-season summary of the weekly total catch (Table 1) and mean catch-per-day (Table 2) of Chinook Salmon, Coho Salmon, and steelhead at each trap site. Trap efficiency, a measure of the proportion of fish moving past a trap site that are caught, varies weekly. *Therefore, raw catch numbers are not representative of actual abundance and we advise against*

using weekly raw catch numbers to make inferences on temporal abundance. Cumulative preliminary weekly estimates of wild YOY Chinook Salmon are provided for the I-5 (Figure 1) and Kinsman (Figure 2) trap sites using the Chapman estimator (1951) in Carlson et al. (1998). Final expansions to generate weekly stratified abundance estimates will be calculated after the end of the sampling season. Weekly estimates of mean fork length of YOY Chinook and Coho salmon from each of the four trap sites are provided in Table 3.

See Table 4 for a weekly stratified summary of clinical signs of disease observed in the catch for the trap and seine sites. Note that these data are based on the visual presence of external symptoms of disease, which may not always be revealed by infected fish. The percentage of live YOY Chinook Salmon in the trap and seine catches that exhibit distended bellies, gill fungus, and pale gills are presented separately for each site on a weekly basis. Distended bellies may be a clinical sign of infection by the myxosporean parasites, *Ceratomyxa shasta* and *Parvicapsula minibicornis*. Gills of juvenile salmonids  $\geq 45$  mm FL are evaluated for color (red, pale/pink, white, or tan) and condition (normal, eroded, or fungal). Pale gills may be due to anemia associated with *P. minibicornis* infection. Gill fungus is likely *Saprolegnia* growing upon a columnaris (*Flavobacterium columnare*) infection.

To determine infection rates more accurately for the outmigrant juvenile Chinook Salmon population passing the Kinsman Trap Site, I-5 Trap Site, and Weitchpec Trap Site, weekly-stratified random samples are collected, preserved, and delivered to the California–Nevada Fish Health Center (CA–NV FHC) to process using qPCR assays. This season’s fish health sampling began the week of March 20. The CA–NV FHC investigates infection rates of *C. shasta* and other pathogens in juvenile salmonids in the Klamath River annually. The CA–NV FHC releases regular updates (available on the [USFWS online library](#)) and a final report for each season.

Daily mean discharge below IGD (Figure 3) and at the Kinsman Trap Site (Figure 4), from late February to July, are provided to help portray pertinent flow conditions. Discharge at the I-5 trap site are represented by USGS Gauging Station 11516530 (Klamath River below IGD, California). Discharge at USGS 11520500 (Klamath River near Seiad Valley, California) minus discharge at USGS 11519500 (Scott River near Fort Jones, California) is used as a surrogate flow for the Kinsman Trap Site.

If you have any questions regarding this summary, please contact Steve Gough (steve\_gough@fws.gov).

Table 1. In-season summary of the total catch by week of adipose fin-clipped (AD Clip) and non-adipose fin-clipped (No Clip) Chinook Salmon and steelhead and left maxillary-clipped (LM Clip) and non-maxillary clipped (No Clip) Coho Salmon by trap at the I-5 and Kinsman trap sites on the mainstem Klamath River, 2024. Note that RST = rotary screw trap, UPS = upstream, DNS = downstream, and YOY = young-of-the-year. *Note: Not all YOY Chinook at I-5 were examined for ad-clips in week 21; most or all unmarked (No clip) fish that week were likely hatchery origin.*

Preliminary Data - Subject to Revision

Trap	Calendar week	Sample dates	Q (cfs) <sup>a</sup>		Water temp. (°F) <sup>b</sup>		Trapping days	Chinook ( <i>O. tshawytscha</i> )			Coho ( <i>O. kisutch</i> )			Steelhead ( <i>O. mykiss</i> )			
			Min	Max	Min	Max		YOY			Age 1+						
								No clip	AD clip	Age 1+	YOY	No clip	LM clip	YOY	No clip	AD clip	
I-5 UPS RST	10	3/6-3/8	1,350	1,650	43.3	44.2	2	58	0	0	0	3	0	0	0	0	0
	11	3/12-3/15	1,050	1,700	43.9	45.7	3	14	0	0	3	3	0	1	6	1	
	12	3/19-3/22	965	1,700	48.5	50.5	3	5	0	0	5	1	0	1	11	0	
	13	3/26-3/29	989	1,270	47.8	50.7	2	1	0	0	1	0	0	0	8	0	
	14	4/2-4/5	1,300	1,500	48.1	53.0	4	2	0	0	3	0	0	7	22	0	
	15	4/9-4/12	1,340	1,380	49.3	53.6	4	5	0	0	2	4	0	0	69	0	
	16	4/16-4/19	1,370	1,500	51.0	52.3	4	22	0	0	12	4	675	0	19	0	
	17	4/23-4/26	1,340	1,360	53.5	57.3	4	9	0	0	9	5	31	0	7	0	
	18	4/30-5/3	1,320	1,360	51.0	53.8	4	12	0	0	1	4	114	0	9	0	
	19	5/7-5/10	1,160	1,330	50.5	55.6	4	6	0	0	4	1	265	1	21	0	
	20	5/14-5/17	1,160	1,180	61.7	62.0	4	114	31	0	10	3	31	6	4	0	
	21	5/21-5/24	1,190	1,200	52.3	58.0	4	747	1	1	21	1	18	2	5	0	
	22	5/29-5/31	1,150	1,170	58.8	60.5	3	2041	590	0	42	0	0	29	5	0	
	23	6/4-6/7	1,020	1,030	64.6	67.2	4	4770	1230	4	42	5	0	84	22	0	
	24	6/11-6/14	1,020	1,030	65.8	68.8	4	1846	452	1	4	0	0	30	14	0	
	I-5 DNS RST	10	3/6-3/8	1,050	1,650	43.3	44.2	3	39	0	0	0	1	0	0	3	0
		11	3/12-3/15	1,350	1,700	43.9	45.7	4	7	0	0	1	3	0	3	3	0
		12	3/19-3/22	965	1,700	48.5	50.5	3	2	0	0	0	1	0	1	7	0
		13	3/26-3/29	989	1,270	47.8	50.7	4	3	0	0	1	0	0	0	6	0
		14	4/2-4/5	1,300	1,500	48.1	53.0	4	2	0	0	2	2	0	7	7	0
		15	4/9-4/12	1,340	1,380	49.3	53.6	4	1	0	0	1	1	0	0	25	0
		16	4/16-4/19	1,370	1,500	51.0	52.3	4	7	0	0	1	2	169	0	23	0
		17	4/23-4/26	1,340	1,360	53.5	57.3	4	1	0	0	1	1	14	1	12	0
		18	4/30-5/3	1,320	1,360	51.0	53.8	4	12	0	0	0	2	39	0	16	0
19		5/7-5/10	1,160	1,330	50.5	55.6	4	7	0	0	3	0	54	2	17	0	
20		5/14-5/17	1,160	1,180	61.7	62.0	4	56	22	0	6	1	6	2	1	0	
21		5/21-5/24	1,190	1,200	57.0	62.3	4	127	32	0	13	0	1	3	2	0	
22		5/29-5/31	1,150	1,170	58.8	60.5	3	544	140	0	16	0	0	15	4	0	
23		6/4-6/7	1,020	1,030	64.6	67.2	4	1068	268	1	18	0	0	21	10	0	
24		6/11-6/14	1,020	1,030	65.8	68.8	4	638	243	0	5	0	0	19	6	0	
Kinsman RST		10	3/6-3/8	3,000	3,225	42.7	44.2	3	15	0	0	5	8	0	1	0	0
		11	3/12-3/15	2,675	3,162	44.0	48.5	4	15	0	0	2	36	0	3	18	0
		12	3/19-3/21	2,770	2,870	48.1	50.2	3	41	0	0	8	27	0	5	22	0
		13	3/26-3/29	2,620	3,040	47.5	50.3	3	37	0	0	28	39	0	0	13	0
		14	4/2-4/5	2,685	2,790	48.3	53.0	4	14	0	0	8	9	0	4	8	0
		15	4/9-4/12	2,377	2,416	50.3	53.5	1	43	0	2	16	8	0	6	5	0
		16	4/16-4/19	2,610	3,000	51.4	53.8	4	67	0	5	16	11	0	8	3	0
		17	4/23-4/26	2,640	2,770	54.3	56.0	4	76	0	3	21	8	0	1	11	0
		18	4/30-5/3	2,360	2,460	51.2	54.1	4	118	0	1	26	12	0	3	8	0
	19	5/7-5/10	2,211	2,560	50.2	61.6	4	117	0	2	47	24	7	1	5	0	
	20	5/14-5/17	2,340	2,400	60.2	63.1	4	199	0	1	13	4	1	0	2	0	
	21	5/21-5/24	2,020	2,130	58.1	60.4	4	196	0	0	32	1	0	0	4	0	
	22	5/29-5/31	1,777	1,870	60.3	63.4	3	80	1	0	38	1	1	0	2	0	
	23	6/4-6/7	1,583	1,730	63.1	70.3	4	405	34	7	125	2	0	7	19	0	
	24	6/11-6/14	1,445	1,527	67.0	69.0	3	280	26	0	40	1	0	2	13	0	
	Kinsman UPS RST	11	3/14-3/15	2,811	3,162	44.5	45.3	2	79	0	0	3	8	0	0	2	0
		12	3/19-3/22	2,770	3,542	49.1	50.5	3	64	0	2	14	20	0	3	3	0
		13	3/26-3/29	2,620	3,040	46.7	50.3	4	81	0	2	51	29	0	0	13	0
		14	4/2-4/5	2,685	2,790	48.3	53.0	4	59	0	6	44	27	0	1	24	0
		15	4/9-4/12	2,377	2,416	50.3	53.6	3	80	0	9	32	36	0	1	16	0
		16	4/16-4/19	2,610	3,000	51.8	53.2	3	205	0	8	15	23	0	0	22	0
		17	4/23-4/26	2,640	2,770	54.4	56.8	4	233	0	1	12	21	1	3	28	0
		18	4/30-5/3	2,360	2,460	51.9	54.4	4	385	1	2	20	18	9	8	31	0
		19	5/7-5/10	2,211	2,560	51.1	57.3	4	336	0	2	39	19	13	7	24	0
20		5/14-5/17	2,340	2,400	59.8	62.7	4	382	0	7	10	9	15	0	7	0	
21		5/21-5/24	2,020	2,130	57.5	59.5	4	385	0	3	15	6	2	4	2	0	
22		5/29-5/31	1,777	1,870	59.7	62.8	3	246	5	0	12	3	0	1	8	0	
23		6/4-6/7	1,583	1,730	62.3	69.3	4	1779	124	12	52	2	0	7	12	0	
24		6/11-6/14	1,445	1,527	67.4	69.0	4	797	83	5	21	1	0	0	6	0	
Weitchpec RST		19	5/6-5/11	8,750	10,300	50.0	55.4	6	8	0	12	2	7	13	10	23	0
		20	5/14-5/17	11,400	11,700	57.0	59.0	4	28	0	112	1	17	81	1	120	0
		21	5/21-5/24	7,400	8,290	55.0	57.2	4	31	0	31	0	3	25	0	101	0
		22	5/29-5/31	6,310	6,890	58.1	59.0	3	222	0	27	0	7	10	4	95	0
		23	6/4-6/7	6,180	6,900	61.0	65.0	4	1891	55	4	0	3	4	2	680	0
		24	6/11-6/14	4,370	4,980	66.0	66.0	4	3015	141	29	2	1	0	2	49	0
		25	6/18-6/20	3,640	3,840	60.5	64.2	3	1099	54	3	3	3	0	1	30	0
		26	6/25-6/27	3,210	3,350	67.5	68.9	3	960	26	0	0	0	0	2	8	0

<sup>a</sup> mean discharge from day of sampling (discharge below IGD used for Bogus and I-5 sites; discharge at Kinsman Site is Klamath River discharge at Seiad minus Scott River discharge; discharge at Weitchpec Site is discharge near Orleans)

<sup>b</sup> temperature recorded at time of trap check



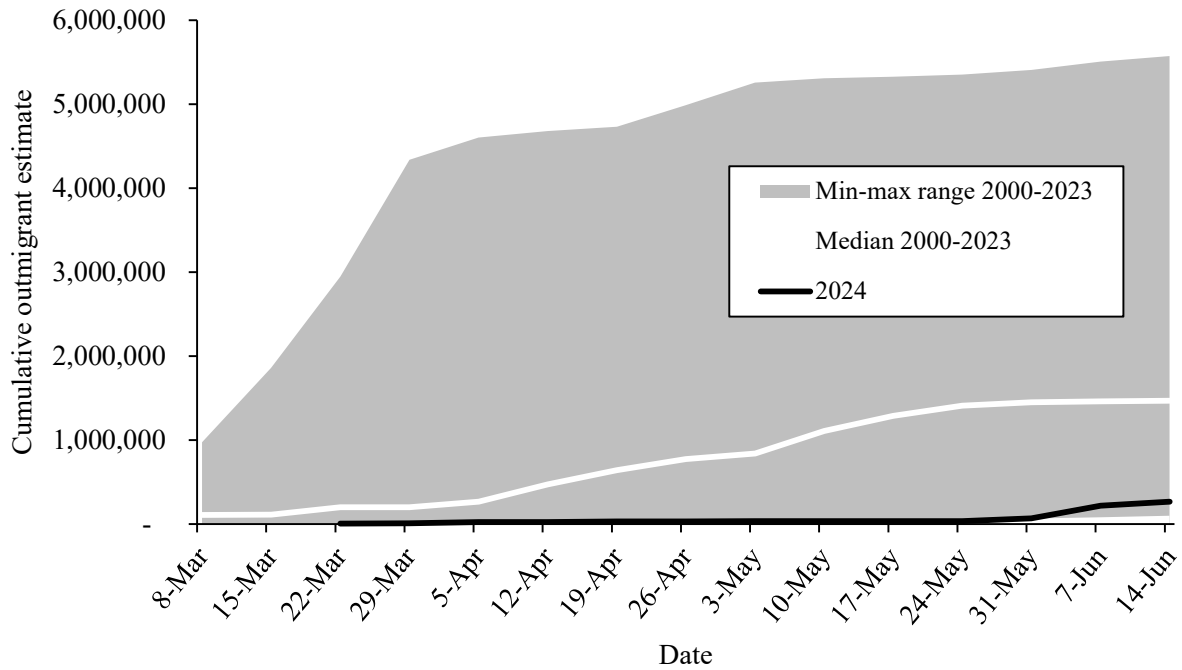


Figure 1. Preliminary (subject to change) 2024 cumulative weekly estimates of natural-origin age-0 Chinook Salmon outmigrating past the I-5 trap site, mainstem Klamath River, compared with 2000–2023. The first two weeks of trapping data are not included here because the catch was largely comprised of unmarked hatchery-origin fish released from the Fall Creek Hatchery.

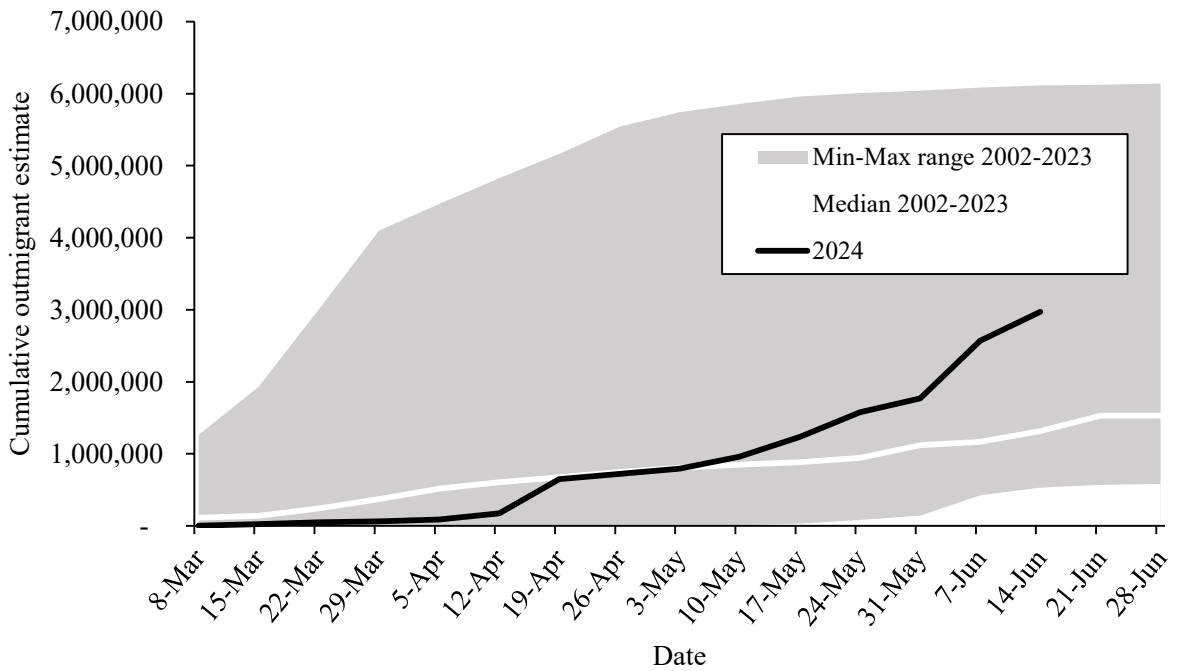


Figure 2. Preliminary (subject to change) 2024 cumulative weekly estimates of natural-origin age-0 Chinook Salmon outmigrating past the Kinsman trap site, mainstem Klamath River, compared with 2002–2023.

Table 3. In-season summary of fork lengths, compared with the last ten years of naturally produced Chinook and Coho salmon by trap type at the I-5 and Kinsman sites on the mainstem Klamath River, 2024. RST = rotary screw trap and YOY = young-of-the-year.

Preliminary data - Subject to revision

Site	Calendar Week	2024 Sampling Dates	YOY Chinook (natural) - fork length data					YOY Coho - fork length data										
			2024				Previous 10 years			2024				Previous 10 years				
			n	Mean (mm)	Min. (mm)	Max. (mm)	% > 55 mm	n	Years of data	Mean (mm)	n	Mean (mm)	Min. (mm)	Max. (mm)	% > 55 mm	n	Years of data	Mean (mm)
I-5 RST's	10	Mar 06-08	65	41.7	29.0	52.0	0	666	9	37.7	0	▬	▬	▬	▬	0	2	-
	11	Mar 12-14	17	▬	▬	▬	▬	623	10	37.9	3	▬	▬	▬	▬	1	3	11.7
	12	Mar 19-21	5	▬	▬	▬	▬	722	9	37.4	4	▬	▬	▬	▬	0	2	-
	13	Mar 26-28	3	▬	▬	▬	▬	604	8	37.9	2	▬	▬	▬	▬	15	5	28.0
	14	Apr 02-04	3	▬	▬	▬	▬	759	10	39.2	3	▬	▬	▬	▬	38	6	28.5
	15	Apr 09-11	4	▬	▬	▬	▬	646	9	42.6	1	▬	▬	▬	▬	64	7	35.4
	16	Apr 16-18	23	▬	▬	▬	▬	784	10	45.5	4	▬	▬	▬	▬	111	6	34.6
	17	Apr 23-25	7	▬	▬	▬	▬	750	10	49.0	9	▬	▬	▬	▬	166	7	37.0
	18	Apr 30-May 02	14	▬	▬	▬	▬	866	10	52.7	0	▬	▬	▬	▬	139	10	42.2
	19	May 07-09	12	▬	▬	▬	▬	755	10	55.3	0	▬	▬	▬	▬	75	8	37.3
	20	May 14-16	35	69.3	58.0	76.0	100%	748	10	62.5	0	▬	▬	▬	▬	83	7	51.4
	21	May 21-23	44	69.1	55.0	83.0	98%	563	8	71.4	24	▬	▬	▬	▬	111	6	53.1
	22	May 29-30	23	▬	▬	▬	▬	368	5	72.6	64	59.8	34	99	55%	56	4	56.4
	23	Jun 04-07	50	71.7	61.0	86.0	100%	333	5	77.4	50	66.6	47	86	82%	72	4	58.5
24	Jun 11-13	76	68.2	59.0	78.0	100%	115	2	74.3	8	▬	▬	▬	▬	47	1	57.8	
Kinsman RST's	10	Mar 06-08	16	▬	▬	▬	▬	504	8	37.7	4	▬	▬	▬	▬	2	2	16.5
	11	Mar 12-14	43	40.7	35.0	53.0	0	531	8	34.0	1	▬	▬	▬	▬	14	2	34.2
	12	Mar 19-21	105	40.0	36.0	49.0	0	585	8	41.1	19	▬	▬	▬	▬	32	3	34.1
	13	Mar 26-28	116	40.8	34.0	59.0	3%	733	8	42.2	75	35.0	33	43	0%	117	6	40.1
	14	Apr 02-04	48	43.2	35.0	59.0	6%	727	8	44.9	32	36.5	34	42	0%	64	6	35.5
	15	Apr 09-11	85	49.8	37.0	63.0	12%	750	9	49.4	32	35.6	33	42	0%	42	7	34.0
	16	Apr 16-18	39	52.2	42.0	62.0	26%	682	9	52.8	12	▬	▬	▬	▬	100	8	29.6
	17	Apr 23-25	139	55.1	39.0	79.0	40%	554	8	54.7	26	▬	▬	▬	▬	128	5	36.5
	18	Apr 30-May 02	173	55.7	34.0	82.0	42%	642	9	56.4	34	40.2	31	86	6%	38	4	45.6
	19	May 07-09	150	55.2	36.0	79.0	47%	650	9	61.0	55	41.4	33	80	11%	46	6	48.5
	20	May 14-16	177	53.3	39.0	80.0	41%	551	9	63.0	22	▬	▬	▬	▬	68	7	47.6
	21	May 21-23	156	60.1	38.0	78.0	75%	580	9	68.4	34	42.2	34	65	6%	107	8	49.1
	22	May 29-30	110	66.9	40.0	90.0	86%	305	7	73.0	31	46.7	34	99	10%	78	6	52.9
	23	Jun 04-07	142	67.9	42.0	79.0	91%	167	6	74.6	113	46.0	4	63	7%	73	4	51.5
24	Jun 11-13	143	68.5	42.0	79.0	94%	108	3	73.7	49	47.2	34	61	12%	19	3	45.7	
Weitchpec RST	19	May 06-10	9	▬	▬	▬	▬	93	2	51.7	2	▬	▬	▬	▬	1	1	41.0
	20	May 14-17	16	▬	▬	▬	▬	NA	NA	NA	0	▬	▬	▬	▬	NA	NA	NA
	21	May 21-24	31	88.9	59.0	99.0	100%	NA	NA	NA	0	▬	▬	▬	▬	NA	NA	NA
	22	May 29-31	108	84.7	66.0	99.0	100%	NA	NA	NA	1	▬	▬	▬	▬	NA	NA	NA
	23	Jun 04-07	80	81.1	65.0	99.0	100%	NA	NA	NA	0	▬	▬	▬	▬	NA	NA	NA
	24	Jun 11-13	58	76.4	55.0	92.0	98%	NA	NA	NA	2	▬	▬	▬	▬	NA	NA	NA
	25	Jun 18-20	87	82.5	59.0	105.0	100%	NA	NA	NA	0	▬	▬	▬	▬	NA	NA	NA
26	Jun 25-27	85	83.5	64.0	108.0	100%	NA	NA	NA	0	▬	▬	▬	▬	NA	NA	NA	

<sup>b</sup> sample size too low for a reportable calculation

Table 4. In-season summary of clinical signs of disease in young-of-the-year Chinook Salmon by site at the I-5, and Kinsman sites on the mainstem Klamath River, 2024. *Note: Although only Chinook Salmon are reported in this table, we also monitor clinical signs of diseases in Coho Salmon and other species.*

Preliminary Data - Subject to Revision

Site	Calendar week	Sampling dates	Weekly mean flow (cfs) <sup>a</sup>	Water temp. (°F) <sup>b</sup>		Belly condition			Gills				
				Min	Max	Sample size	Distended		Sample size	Color		Condition	
							# positive	%		# positive	%	# positive	%
I-5	10	3/6-3/8	1,386	43.3	44.2	65	0	0.0%	9	0	- <sup>d</sup>	0	- <sup>c</sup>
	11	3/12-3/15	1,379	43.9	45.7	17	0	- <sup>d</sup>	4	0	- <sup>d</sup>	0	- <sup>c</sup>
	12	3/19-3/22	1,388	48.5	50.5	7	0	- <sup>d</sup>	1	1	- <sup>d</sup>	0	- <sup>c</sup>
	13	3/26-3/29	1,228	47.8	50.7	2	0	- <sup>d</sup>	0	0	- <sup>d</sup>	0	- <sup>c</sup>
	14	4/2-4/5	1,360	48.1	53.0	2	0	- <sup>d</sup>	1	0	- <sup>d</sup>	0	- <sup>c</sup>
	15	4/9-4/12	1,364	49.3	53.6	4	0	- <sup>d</sup>	2	0	- <sup>d</sup>	0	- <sup>c</sup>
	16	4/16-4/19	1,443	51.0	52.3	23	0	- <sup>d</sup>	18	3	- <sup>d</sup>	0	- <sup>c</sup>
	17	4/23-4/26	1,351	53.5	57.3	7	0	- <sup>c</sup>	6	0	- <sup>c</sup>	0	- <sup>c</sup>
	18	4/30-5/3	1,360	51.0	53.8	14	0	- <sup>c</sup>	14	0	- <sup>c</sup>	0	- <sup>c</sup>
	19	5/7-5/10	1,271	50.5	55.6	12	0	- <sup>c</sup>	11	0	- <sup>c</sup>	0	- <sup>c</sup>
	20	5/14-5/17	1,179	61.7	62.0	35	2	5.7%	35	0	0.0%	0	0.0%
	21	5/21-5/24	1,189	52.3	58.0	44	2	4.5%	44	0	0.0%	0	0.0%
	22	5/29-5/31	1,161	58.8	60.5	59	0	0.0%	59	0	0.0%	0	0.0%
	23	6/4-6/7	1,037	64.6	67.2	89	0	0.0%	89	20	22.5%	0	0.0%
24	6/11-6/14	1,026	65.8	68.8	89	16	18.0%	89	5	5.6%	0	0.0%	
Kinsman	10	3/6-3/8	2,861	42.7	44.2	16	0	- <sup>c</sup>	0	0	- <sup>c</sup>	0	- <sup>c</sup>
	11	3/12-3/15	2,928	44.0	48.5	43	0	0.0%	4	0	- <sup>d</sup>	0	- <sup>c</sup>
	12	3/19-3/21	3,102	0.0	50.2	105	0	0.0%	5	0	- <sup>d</sup>	0	- <sup>c</sup>
	13	3/26-3/29	2,980	47.5	50.3	116	0	0.0%	13	0	- <sup>d</sup>	0	- <sup>c</sup>
	14	4/2-4/5	2,717	48.3	53.0	48	0	0.0%	23	0	- <sup>d</sup>	0	- <sup>c</sup>
	15	4/9-4/12	2,426	50.3	53.5	85	0	0.0%	77	0	0.0%	0	0.0%
	16 <sup>c</sup>	4/16-4/19	2,800	51.4	53.8	39	0	0.0%	50	0	0.0%	0	0.0%
	17	4/23-4/26	2,685	54.3	56.0	139	0	0.0%	137	2	1.5%	2	1.5%
	18	4/30-5/3	2,459	51.2	54.1	173	0	0.0%	167	0	0.0%	0	0.0%
	19	5/7-5/10	2,429	50.2	61.6	150	1	0.7%	139	0	0.0%	0	0.0%
	20	5/14-5/17	2,357	60.2	63.1	177	9	5.1%	139	0	0.0%	0	0.0%
	21	5/21-5/24	2,119	58.1	60.4	156	4	2.6%	156	6	3.8%	6	3.8%
	22	5/29-5/31	1,836	60.3	63.4	115	1	0.9%	105	3	2.9%	0	0.0%
	23	6/4-6/7	1,638	63.1	70.3	165	1	- <sup>c</sup>	164	5	- <sup>c</sup>	5	- <sup>c</sup>
24	6/11-6/14	1,498	67.0	69.0	148	8	- <sup>c</sup>	147	3	- <sup>c</sup>	2	- <sup>c</sup>	
Weitchpec	19	5/6-5/11	9776	50.0	55.4	9	0	- <sup>c</sup>	9	0	- <sup>c</sup>	0	- <sup>c</sup>
	20	5/14-5/17	11,329	59.8	62.7	16	0	- <sup>c</sup>	16	0	- <sup>c</sup>	0	- <sup>c</sup>
	21	5/21-5/24	8,160	57.5	59.5	31	0	0.0%	31	0	0.0%	0	0.0%
	22	5/29-5/31	6,740	59.7	62.8	108	0	0.0%	108	0	0.0%	0	0.0%
	23	6/4-6/7	6,404	62.3	69.3	86	0	0.0%	86	0	0.0%	0	0.0%
	24	6/11-6/14	4,823	67.4	69.0	117	2	1.7%	117	0	0.0%	0	0.0%
	25	6/18-6/20	3,759	60.5	64.2	87	20	23.0%	87	0	0.0%	0	0.0%
26	6/25-6/27	3,280	67.5	68.9	85	0	0.0%	85	0	0.0%	0	0.0%	

<sup>a</sup> discharge below IGD used for Bogus and I-5 sites; discharge at Kinsman Site is Klamath River discharge near Seiad Valley minus discharge in the Scott River near Fort Jones; discharge at Weitchpec Site is discharge near Orleans

<sup>b</sup> temperature recorded at time of trap check/seine

<sup>c</sup> sample size too low for a reportable calculation

<sup>d</sup> trap not set this week because trapping operations were limited due to a flow event and/or hatchery release

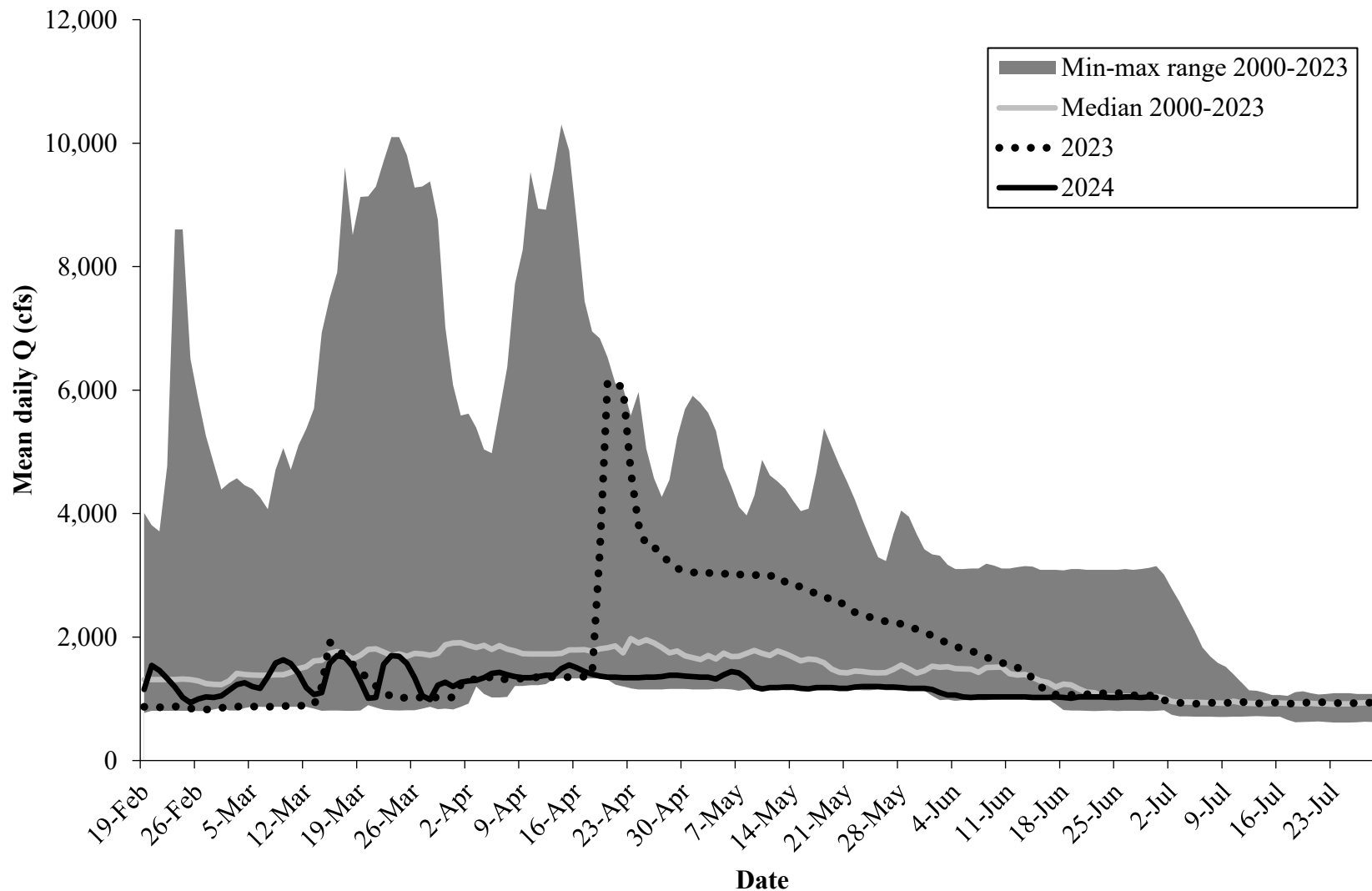


Figure 1. Daily mean discharge below Iron Gate Dam, Klamath River (USGS Gaging Station 11516530) from late February through July 2000–2024.



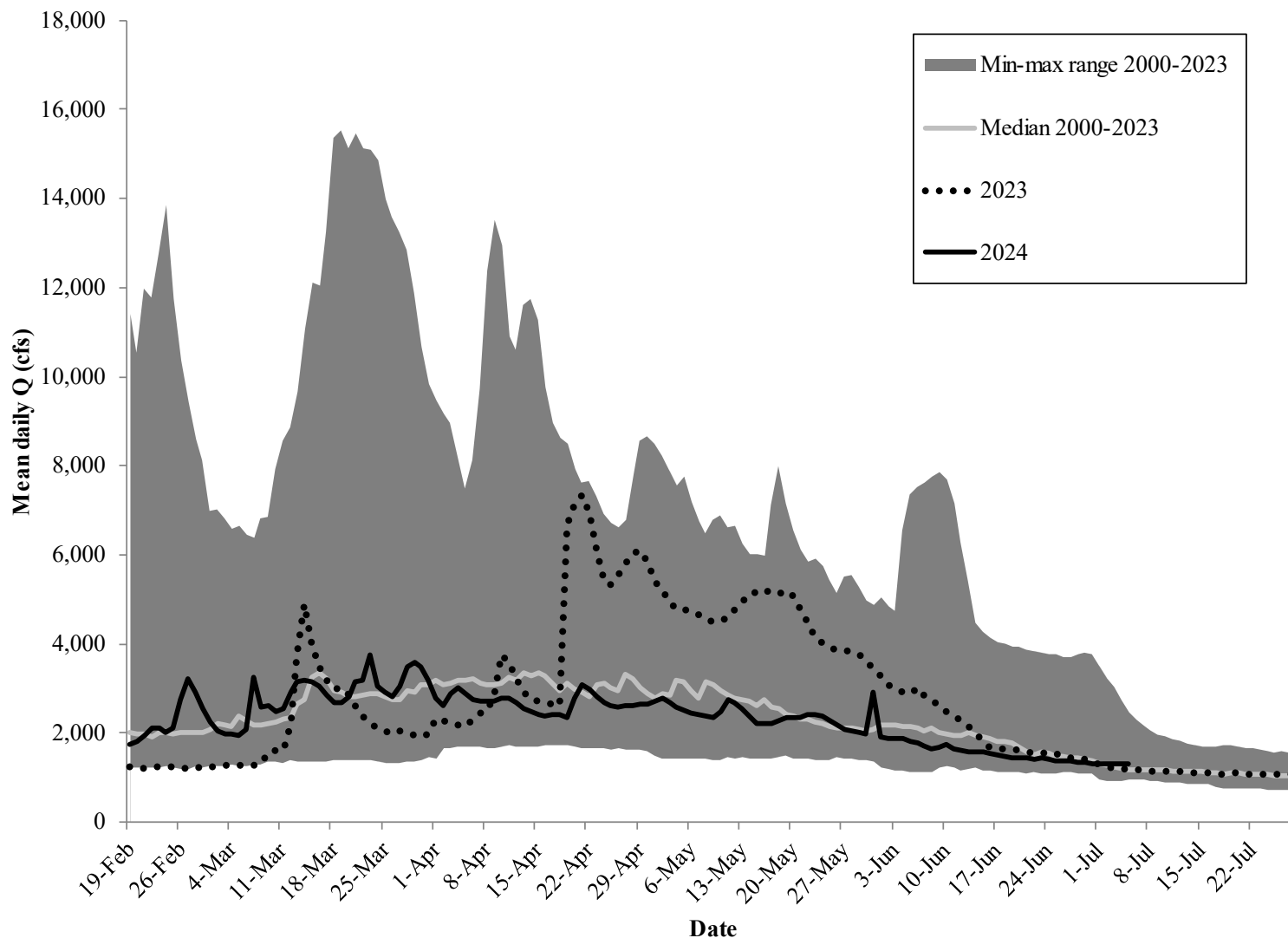


Figure 2. Klamath River daily mean discharge at the Kinsman Trap Site from late February through July 2000–2024. Discharge measurements are not available at this location. Therefore, Klamath River discharge near Seiad Valley, California (USGS Gaging Station 11520500) minus discharge from the Scott River near Fort Jones, California (USGS 11519500) is used as a surrogate.