



United States Department of the Interior



FISH AND WILDLIFE SERVICE
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July 3, 2012

To: Interested Parties

From: Felipe Carrillo, Supervisory Fish Biologist, Red Bluff Fish and Wildlife Office

Subject: Biweekly report (June 17, 2012 - June 30, 2012)

Please find attached preliminary daily estimates of passage, 90% confidence intervals, and fork length ranges of juvenile salmonids sampled at Red Bluff Diversion Dam for the period June 17, 2012 through June 30, 2012. Race designation was assigned using length-at-date criteria.

This report also contains graphical displays of salmonid passage dating back to 2005 for comparison.

Please note that data contained in these reports is subject to revision as this data is preliminary and undergoing QA/QC procedures.

If you have any questions, please feel free to contact me at (530) 527-3043 ext 246

Table 1.— Preliminary estimates of passage by brood-year (BY) and run for unmarked juvenile Chinook salmon and steelhead trout captured by rotary-screw traps at Red Bluff Diversion Dam (RK391), Sacramento River, CA, for the dates listed below. Results include estimated passage, peak river discharge volume, water temperature, turbidity, and fork length (mm) range in parentheses. A dash (-) indicates that sampling was not conducted on that date.

Date	Discharge volume (cfs) ¹	Water temperature (°C)	Water turbidity (NTU)	Estimated passage				
				BY11 Winter	BY11 Spring	BY11 Fall	BY12 Late-Fall	BY12 RBT
6/17/2012	13,400	14.1	–	–	–	–	–	–
6/18/2012	13,300	14.1	2.6	0 (–)	0 (–)	2,592 (63 – 121)	135 (54 – 55)	398 (23 – 71)
6/19/2012	13,500	13.7	2.7	0 (–)	0 (–)	3,795 (61 – 108)	108 (32 – 54)	828 (25 – 89)
6/20/2012	13,400	13.6	2.4	0 (–)	0 (–)	4,795 (60 – 111)	0 (–)	362 (28 – 83)
6/21/2012	13,400	13.7	2.5	0 (–)	0 (–)	4,354 (61 – 98)	0 (–)	276 (26 – 71)
6/22/2012	13,500	12.9	2.1	0 (–)	0 (–)	4,974 (64 – 107)	182 (51 – 57)	576 (25 – 91)
6/23/2012	13,100	12.4	2.2	0 (–)	0 (–)	3,203 (65 – 104)	51 (56)	535 (25 – 89)
6/24/2012	13,200	13.1	–	–	–	–	–	–
6/25/2012	15,000	13.1	2.0	0 (–)	0 (–)	6,457 (60 – 110)	59 (56)	456 (25 – 89)
6/26/2012	15,200	13.2	3.2	0 (–)	0 (–)	5,085 (60 – 102)	58 (57)	529 (24 – 79)
6/27/2012	15,200	13.6	2.5	0 (–)	0 (–)	5,510 (62 – 123)	0 (–)	368 (24 – 79)
6/28/2012	15,000	13.9	–	–	–	–	–	–
6/29/2012	14,900	14.1	2.4	0 (–)	0 (–)	3,432 (65 – 103)	59 (58)	588 (24 – 89)
6/30/2012	15,000	14.1	2.2	0 (–)	0 (–)	3,390 (61 – 106)	121 (47 – 58)	484 (27 – 83)
Biweekly Total ²				0	0	61,089	970	6,866
<i>Biweekly Lower 90% Confidence Interval</i>				0	0	-51,523	-4,299	-10,963
<i>Biweekly Upper 90% Confidence Interval</i>				0	0	173,701	6,239	24,695
Brood Year Total				847,795	181,008	5,943,490	75,545	24,224
<i>Brood year Lower 90% Confidence Interval</i>				593,348	96,445	3,362,663	125	12,325
<i>Brood year Upper 90% Confidence Interval</i>				1,102,243	265,571	8,524,318	150,966	36,122

¹ Peak daily discharge values do not account for diversions at RBDD and only represent peak flows registered at the Bend Bridge Gauging station (<http://cdec2.water.ca.gov/cgi-progs/queryFx?bnd>).

² Biweekly totals may be greater than the sum of the daily estimates presented in this table if sampling was not conducted on each day of the biweekly period. A dash (-) denotes those dates. To estimate daily passage for days that were not sampled, we impute missed sample days with the weekly mean value of days sampled within the week.

Juvenile Winter Chinook Salmon Estimated Passage

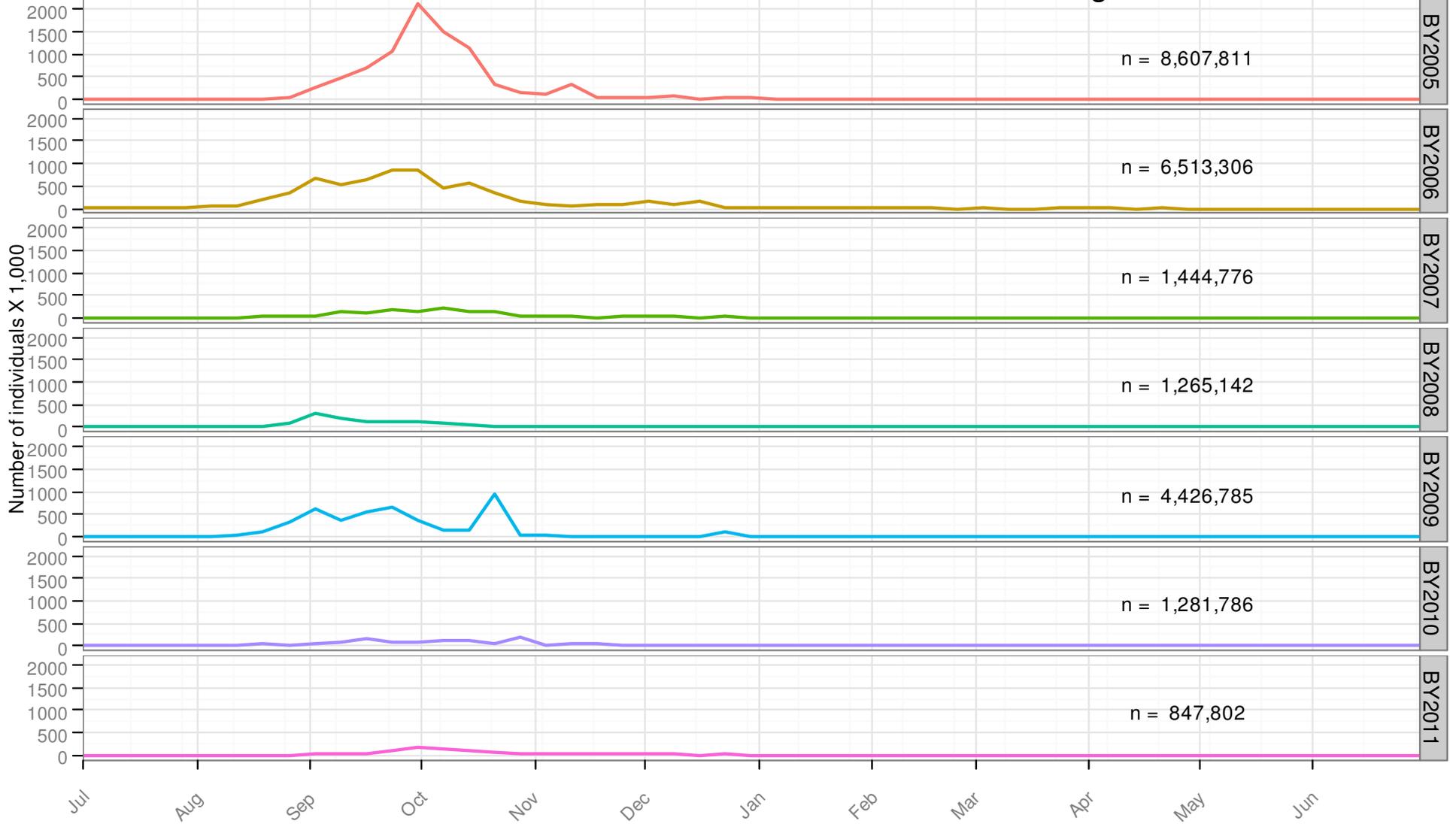


Figure 1. Weekly estimated passage of juvenile winter Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period July 1 2005 to present .

Juvenile Spring Chinook Salmon Estimated Passage

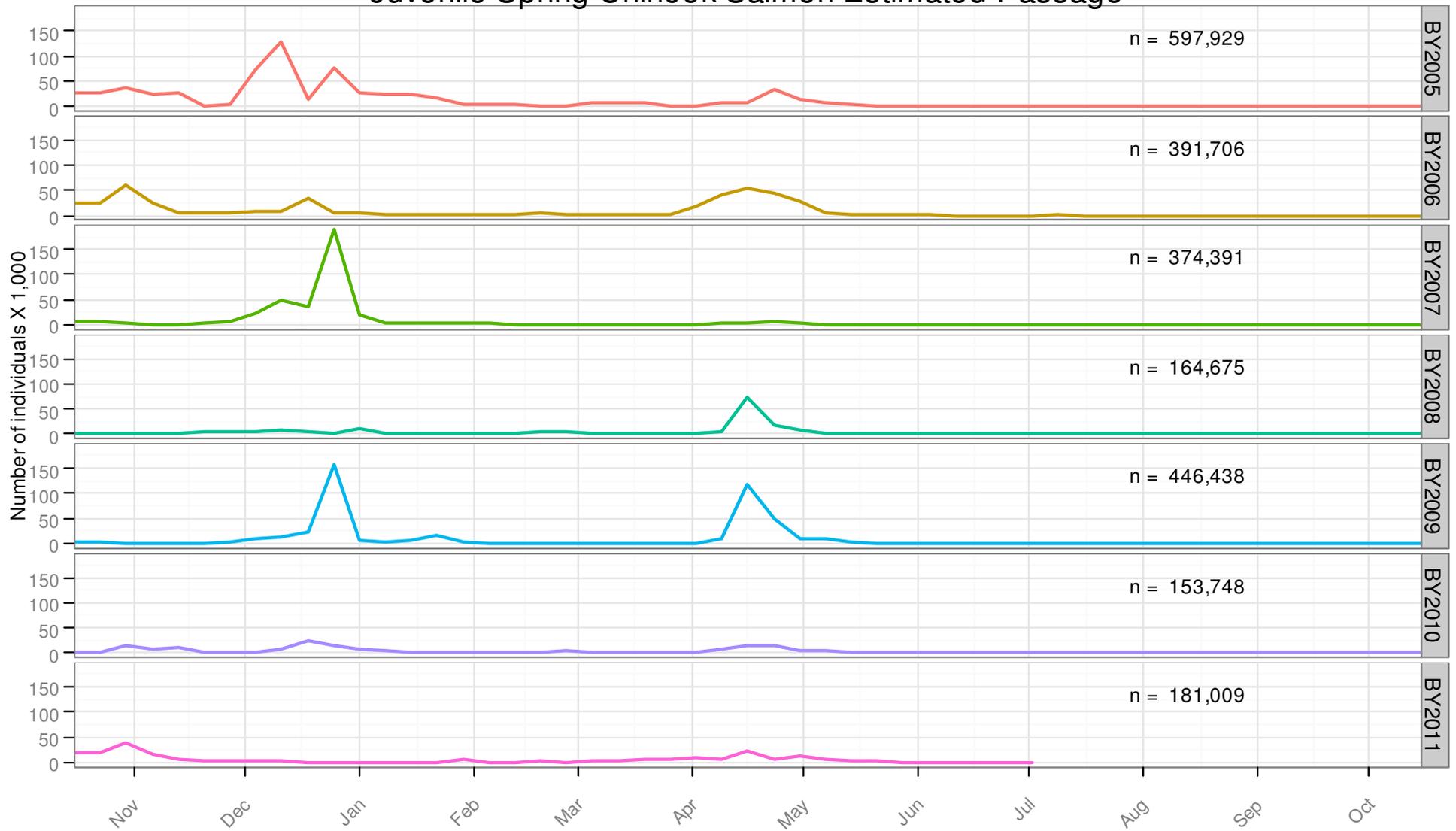


Figure 2. Weekly estimated passage of juvenile Spring Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period October 16 2005 to present .

Juvenile *Onchorhynchus mykiss* Estimated Passage

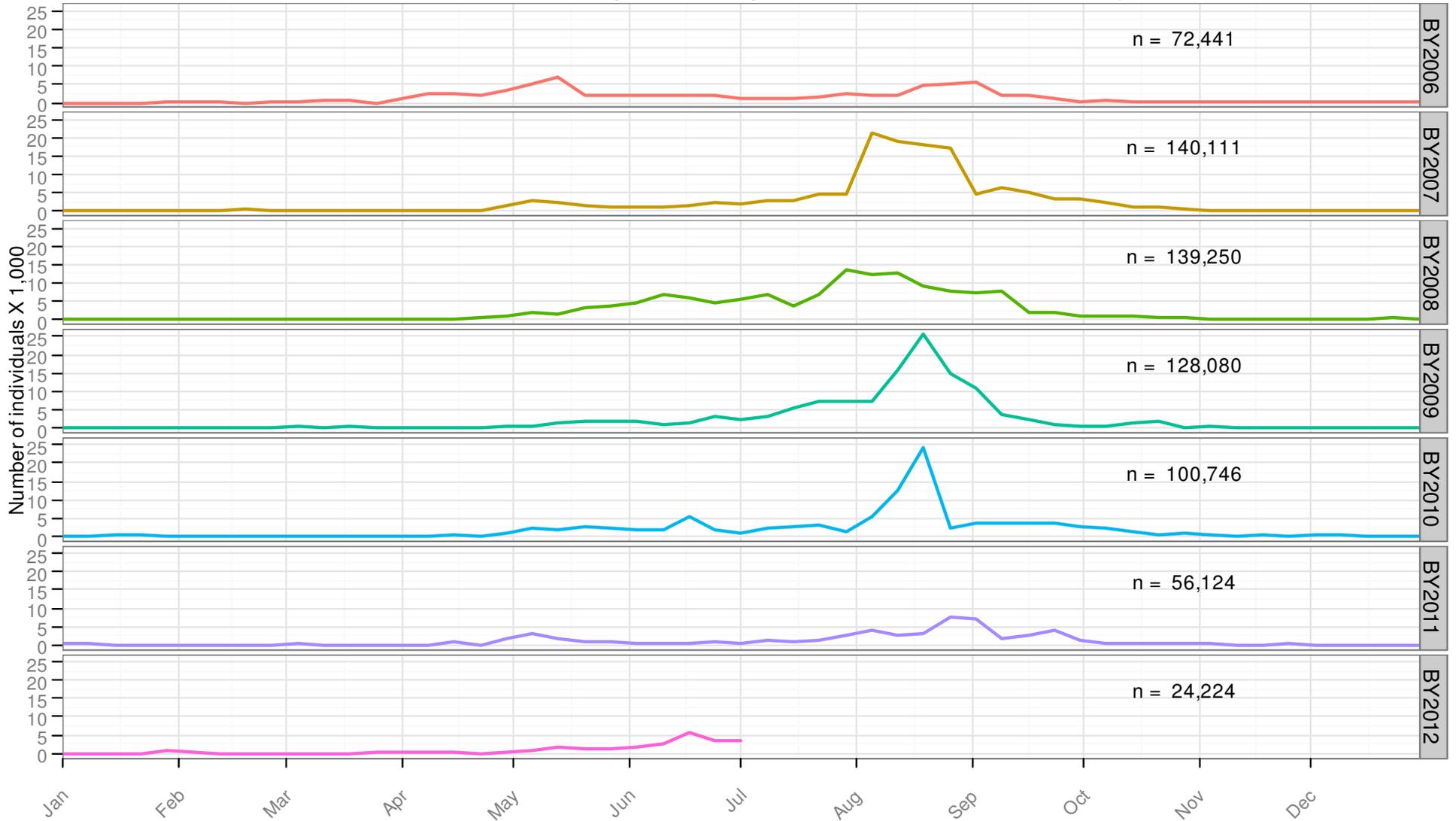


Figure 3. Weekly estimated passage of juvenile Rainbow/Steelhead trout at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period January 1 2006 to present .

Juvenile Fall Chinook Salmon Estimated Passage

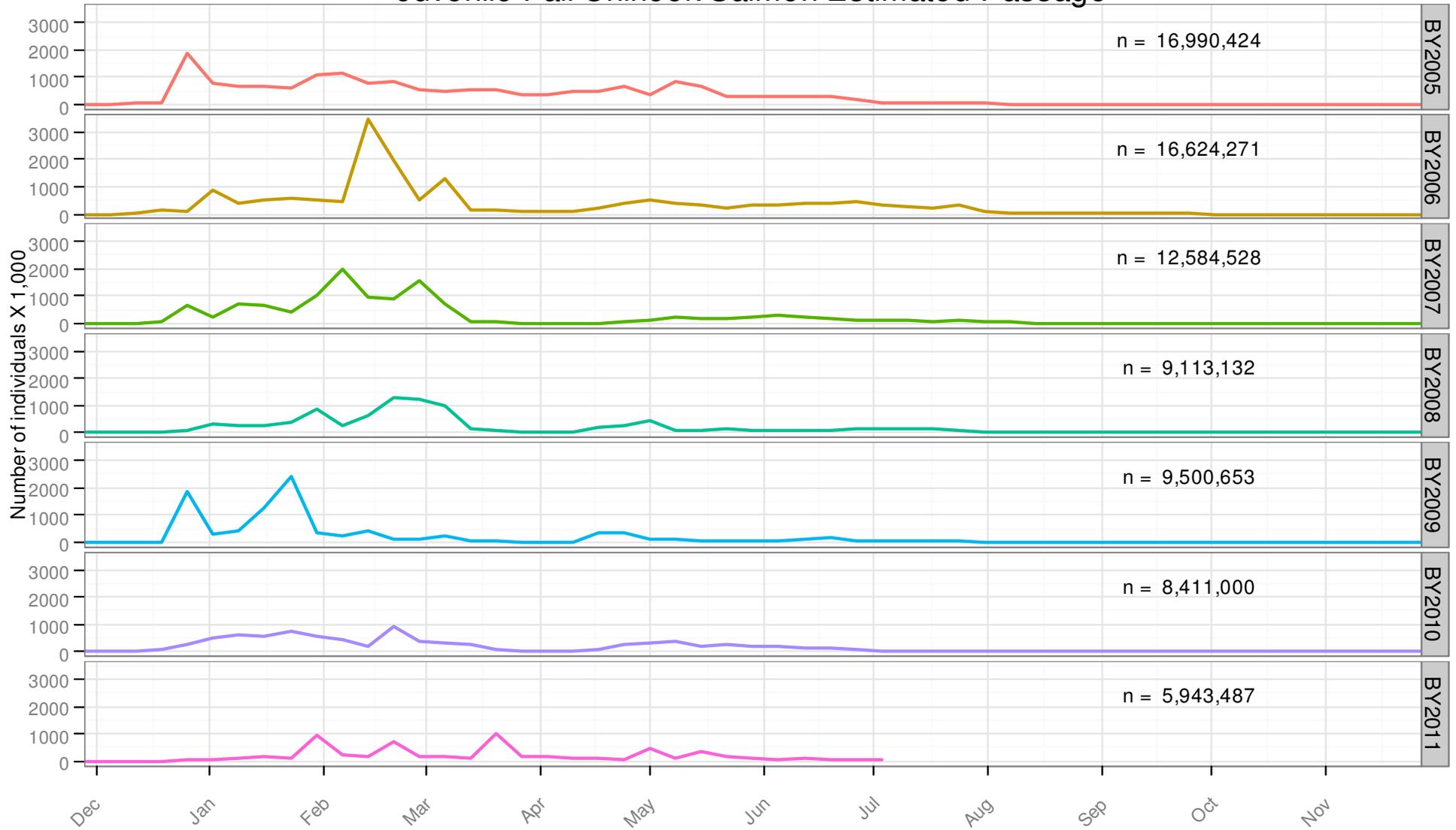


Figure 4. Weekly estimated passage of juvenile Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period December 1 2005 to present .

Juvenile Late Fall Chinook Salmon Estimated Passage

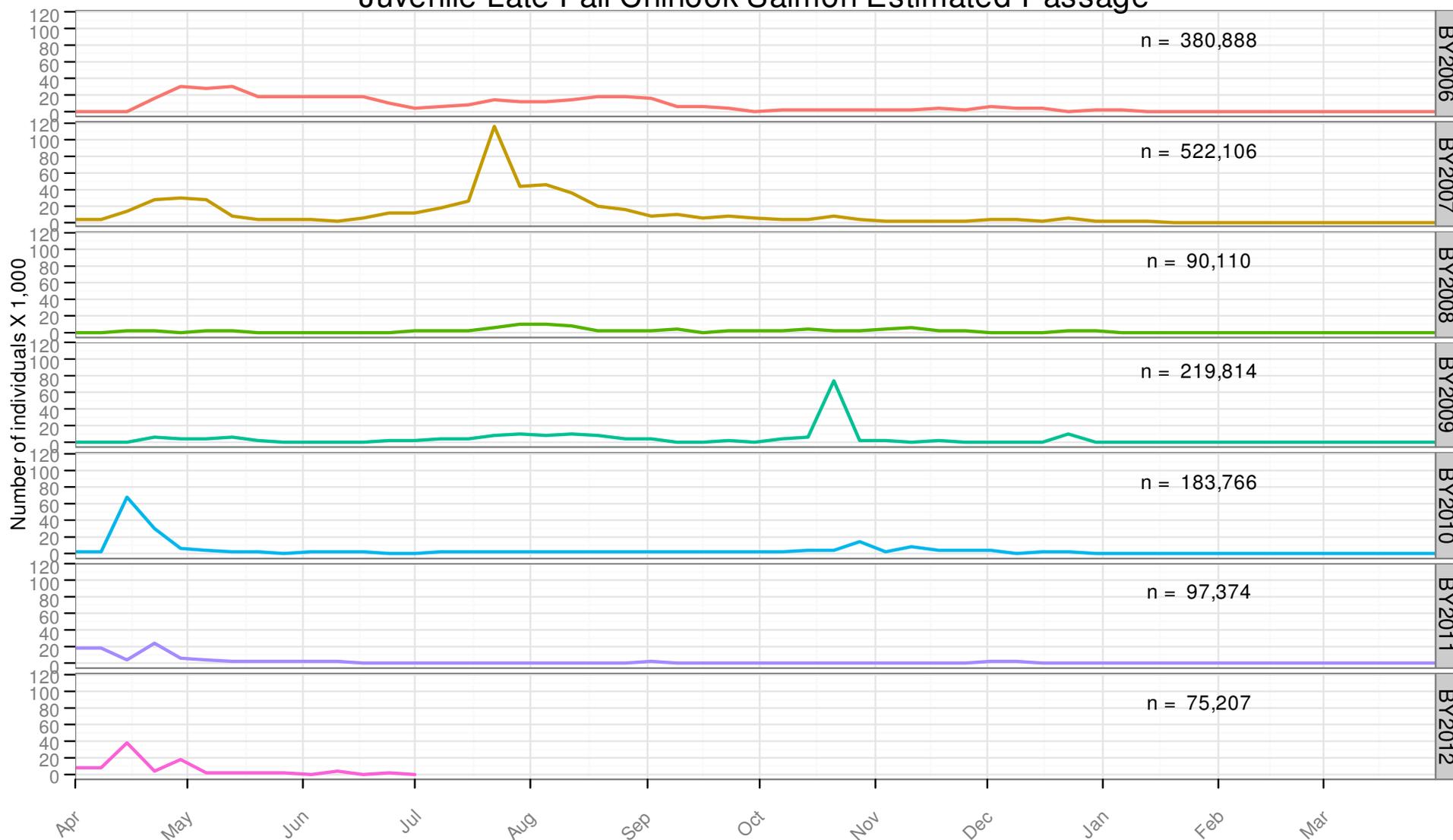


Figure 5. Weekly estimated passage of juvenile Late Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period April 1 2006 to present .

Weekly Estimated Chinook Passage at Red Bluff Diversion Dam - All Runs Combined

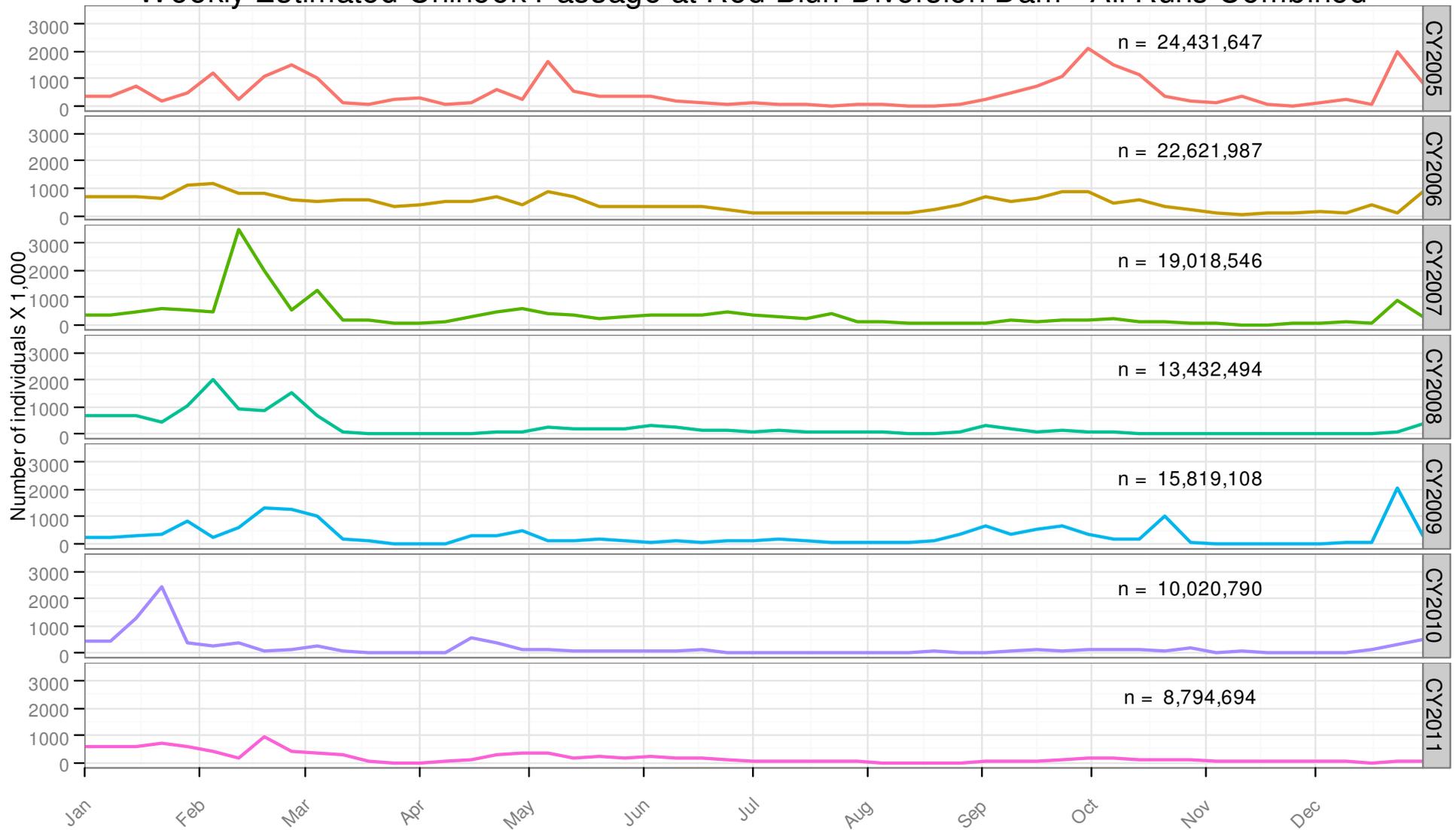


Figure 6. Weekly estimated passage of juvenile Chinook Salmon at Red Bluff Diversion Dam (RK391), by calendar year. Fish were sampled using rotary-screw traps for the period January 1 2005 to December 31 2011