United States Department of the Interior

FISH AND WILDLIFE SERVICE
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May 21, 2013

To: Interested Parties

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

Subject: Biweekly report (May 7, 2013 - May 20, 2013)

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 May 7, 2013 through May 20, 2013. 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.

				Estimated passage				
Date	Discharge volume (cfs) [1]	Water temperature (°C)	Water turbidity (NTU)	BY12 Winter	BY12 Spring	BY12 Fall	BY13 Late-Fall	BY13 RBT
5/7/2013	11,400	12.8	3.1	0 (–)	0 (–)	26,589 (52 – 93)	0 (–)	397 (59 – 77)
5/8/2013	12,500	13.6	2.7	0 (–)	245 (97 – 105)	21,044 (45 – 93)	0 (–)	310 (50 – 75)
5/9/2013	12,300	14.3	2.4	0 (–)	595 (96 – 104)	36,079 (55 – 95)	88 (33)	344 (55 – 80)
5/10/2013	12,300	15.0	3.1	0 (–)	1,497 (96 – 109)	52,842 (47 – 94)	313 (33 – 34)	647 (43 – 87)
5/11/2013	12,200	15.3	3.0	0 (–)	248 (97 – 102)	54,347 (50 – 96)	197 (37)	1,078 (43 – 84)
5/12/2013	12,200	15.2	2.5	0 (–)	248 (99 – 101)	28,237 (48 – 97)	158 (34 – 35)	852 (25 – 87)
5/13/2013	12,200	15.2	2.0	0 (–)	0 (–)	26,707 (50 – 93)	126 (37)	486 (25 – 87)
5/14/2013	12,600	15.2	2.1	0 (–)	265 (101 – 104)	35,145 (50 – 96)	240 (33 – 43)	723 (22 – 92)
5/15/2013	12,300	15.0	2.3	0 (–)	97 (100)	42,320 (47 – 97)	182 (34 – 36)	523 (30 – 101)
5/16/2013	12,400	14.6	3.0	0 (–)	208 (100 – 104)	34,608 (49 – 97)	0 (–)	883 (41 – 89)
5/17/2013	12,800	14.2	3.1	0 (–)	0 (–)	9,667 (53 – 100)	0 (–)	51 (71)
5/18/2013	12,200	14.3	3.7	0 (–)	370 (102 – 115)	37,614 (48 – 100)	136 (43 – 45)	788 (48 – 97)
5/19/2013	12,000	14.6	2.4	0 (–)	365 (102 – 105)	58,007 (47 – 100)	178 (35 – 42)	1,006 (24 – 83)
5/20/2013	12,000	14.8	1.9	0 (–)	57 (107)	32,501 (53 – 101)	172 (33 – 37)	344 (53 – 71)
Biweekly Total [2]				**0**	**4,195**	**495,707**	**1,790**	**8,432**
Biweekly Lower 90% Confidence Interval				0	1,144	268,738	354	3,898
Biweekly Upper 90% Confidence Interval				0	7,246	722,676	3,226	12,966
Brood Year Total				**1,296,508**	**293,009**	**22,379,651**	**11,853**	**29,898**
Brood year Lower 90% Confidence Interval				911,785	163,058	15,689,932	5,643	14,915
Brood year Upper 90% Confidence Interval				1,681,220	422,959	29,069,367	18,061	44,875

[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.

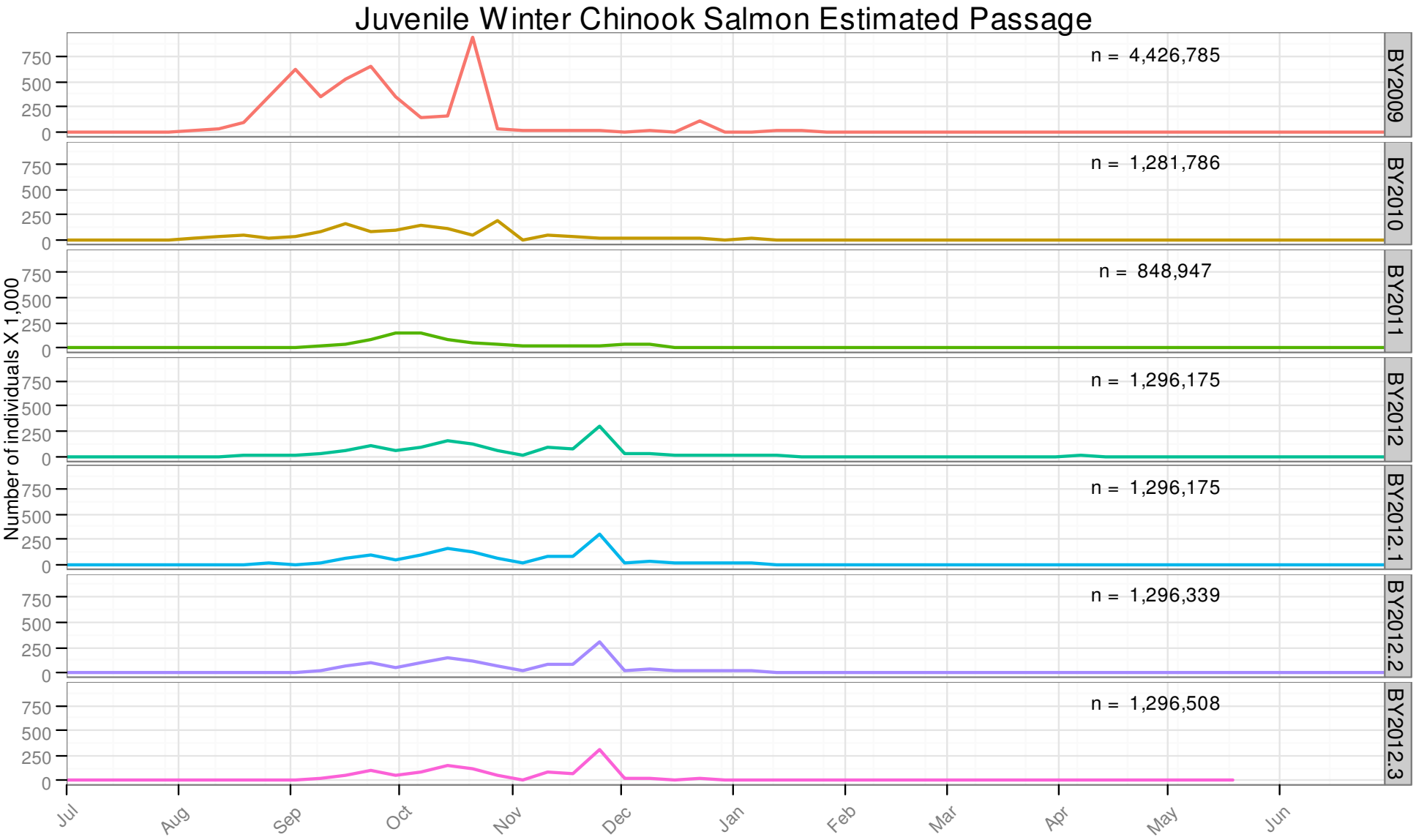

Figure 1. Weekly estimated passage of juvenile winter Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period July 1 2009 to present .

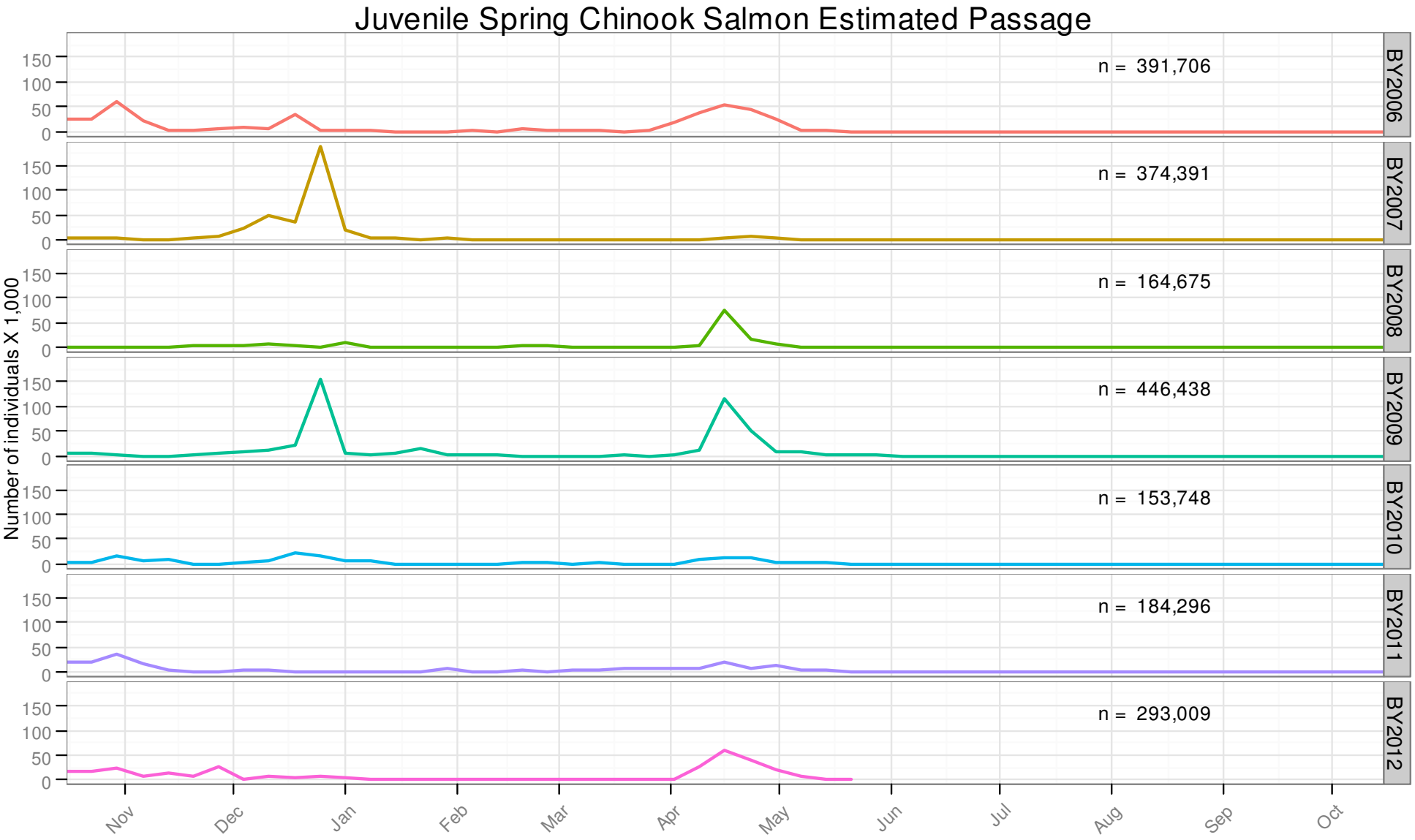

Figure 2. Weekly estimated passage of juvenile Spring Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period October 16 2006 to present .

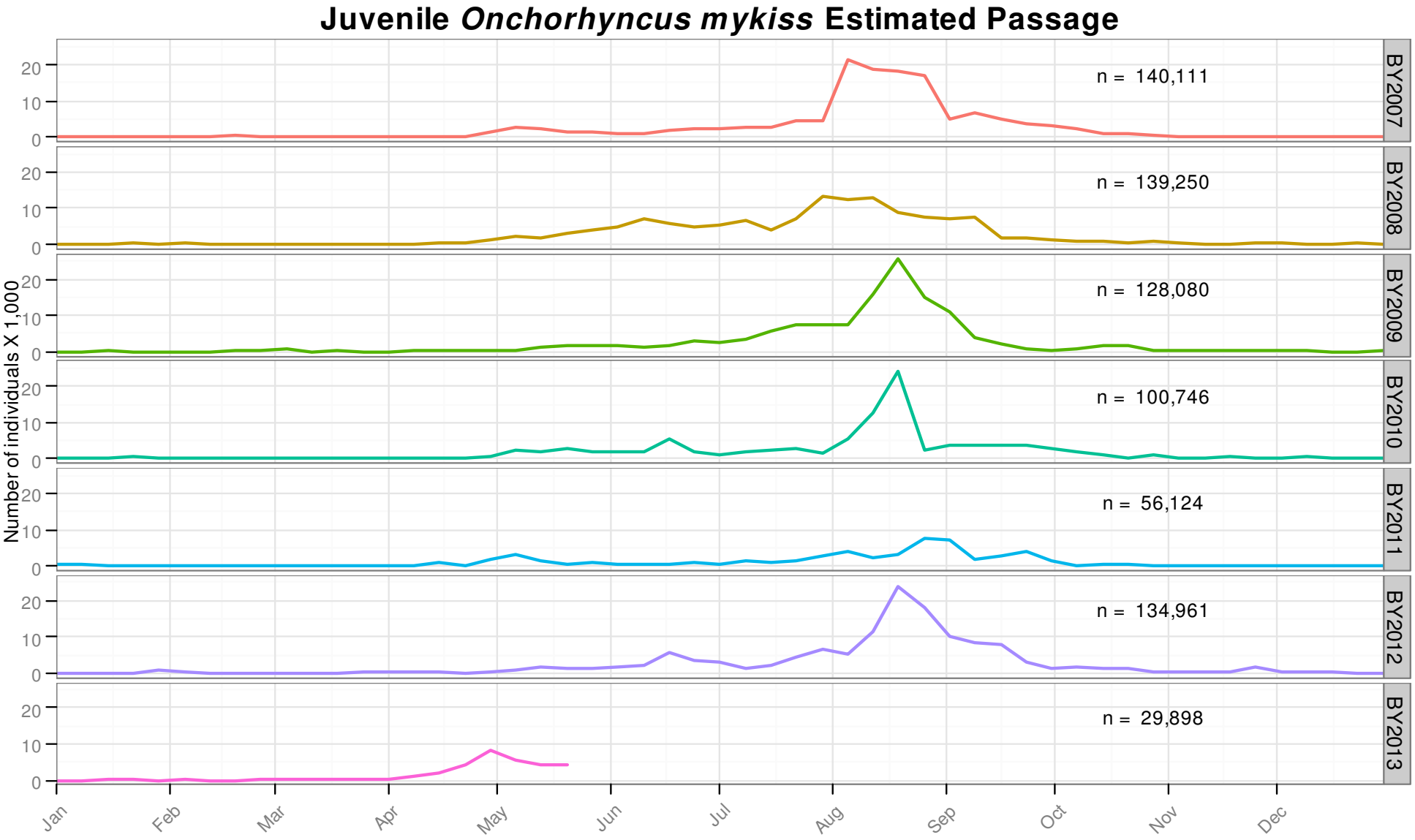

Figure 3. Weekly estimated passage of juvenile Rainbow/Steelhead trout at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period January 1 2007 to present .

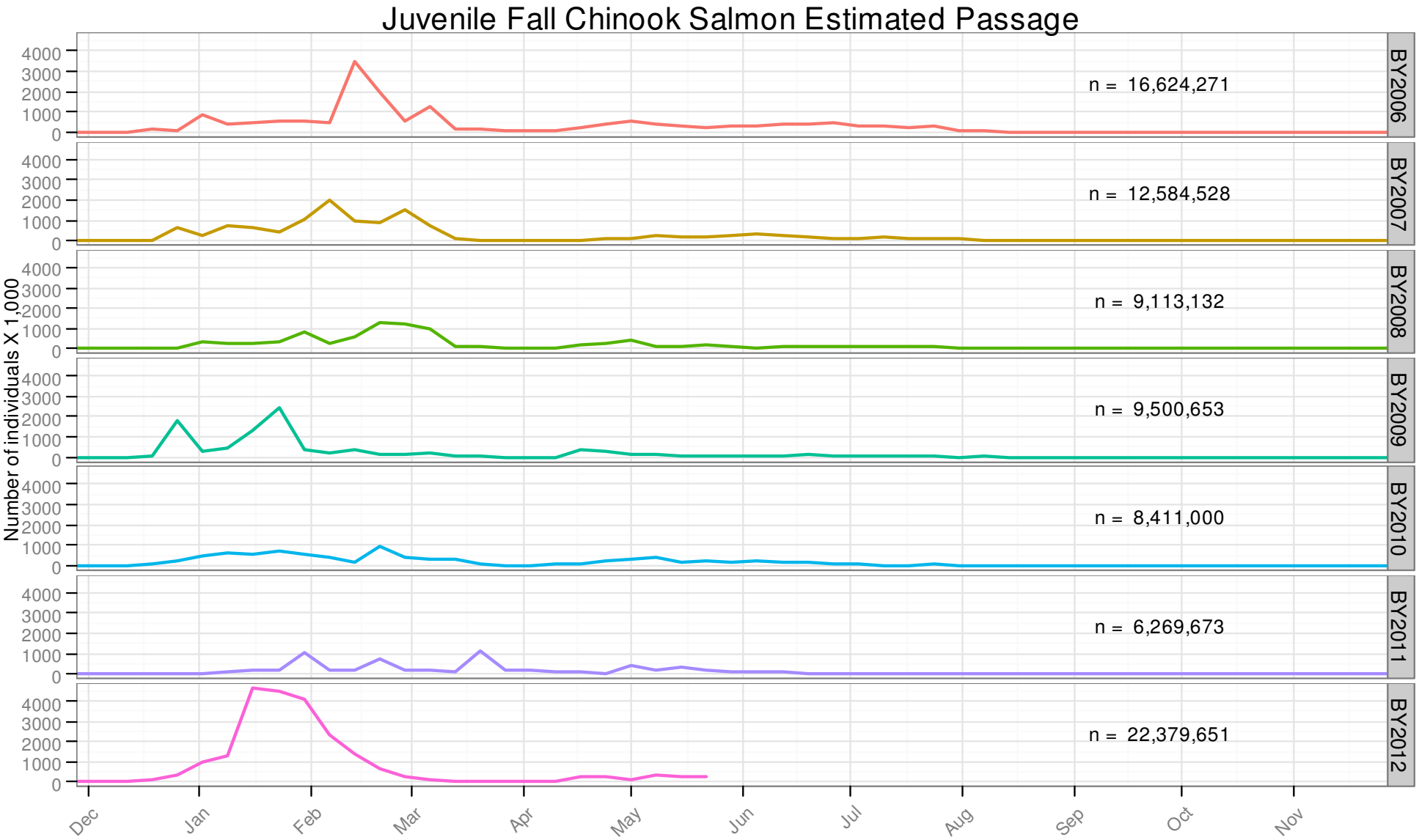

Figure 4. Weekly estimated passage of juvenile Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period December 1 2006 to present .

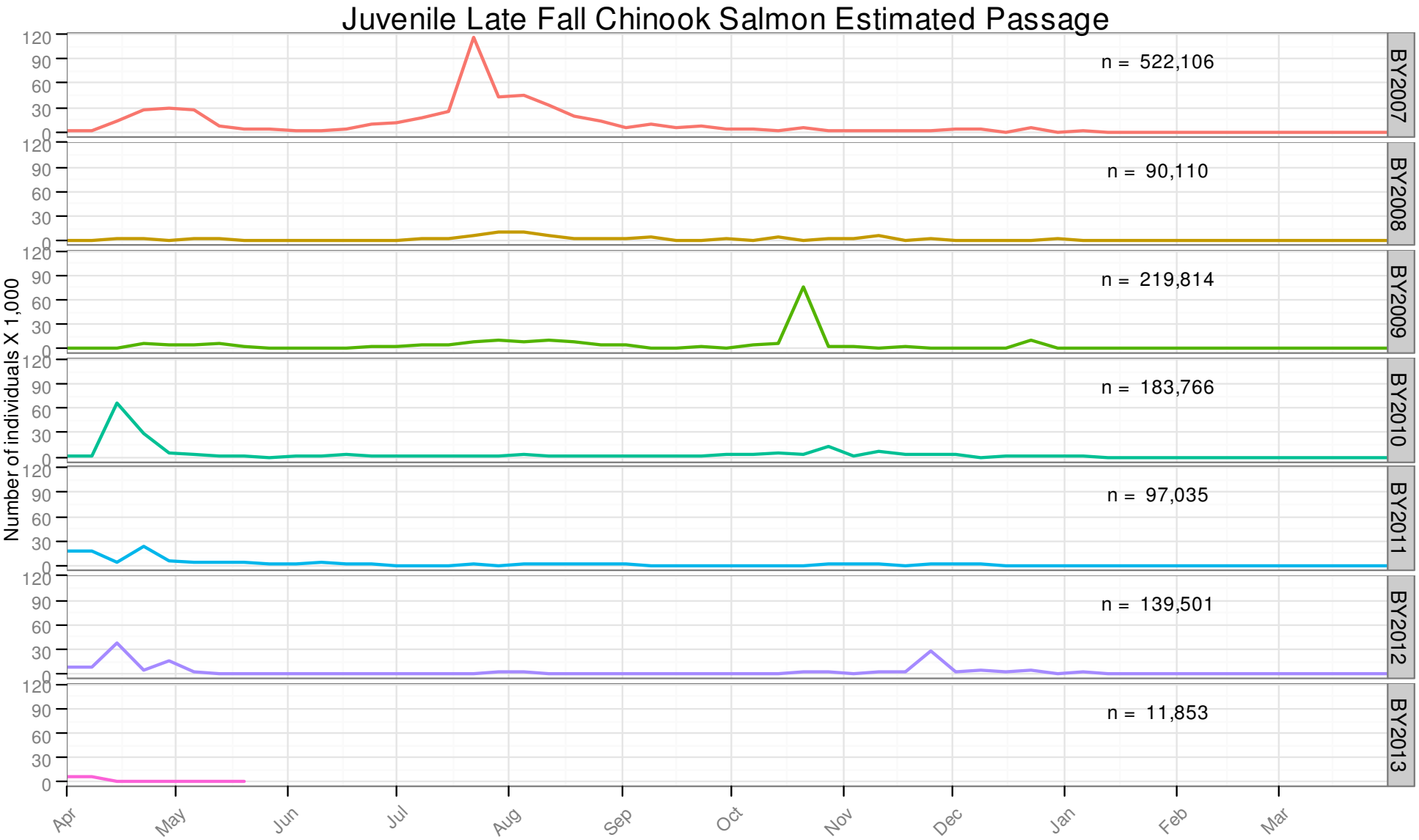

Figure 5. Weekly estimated passage of juvenile Late Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period April 1 2007 to present .

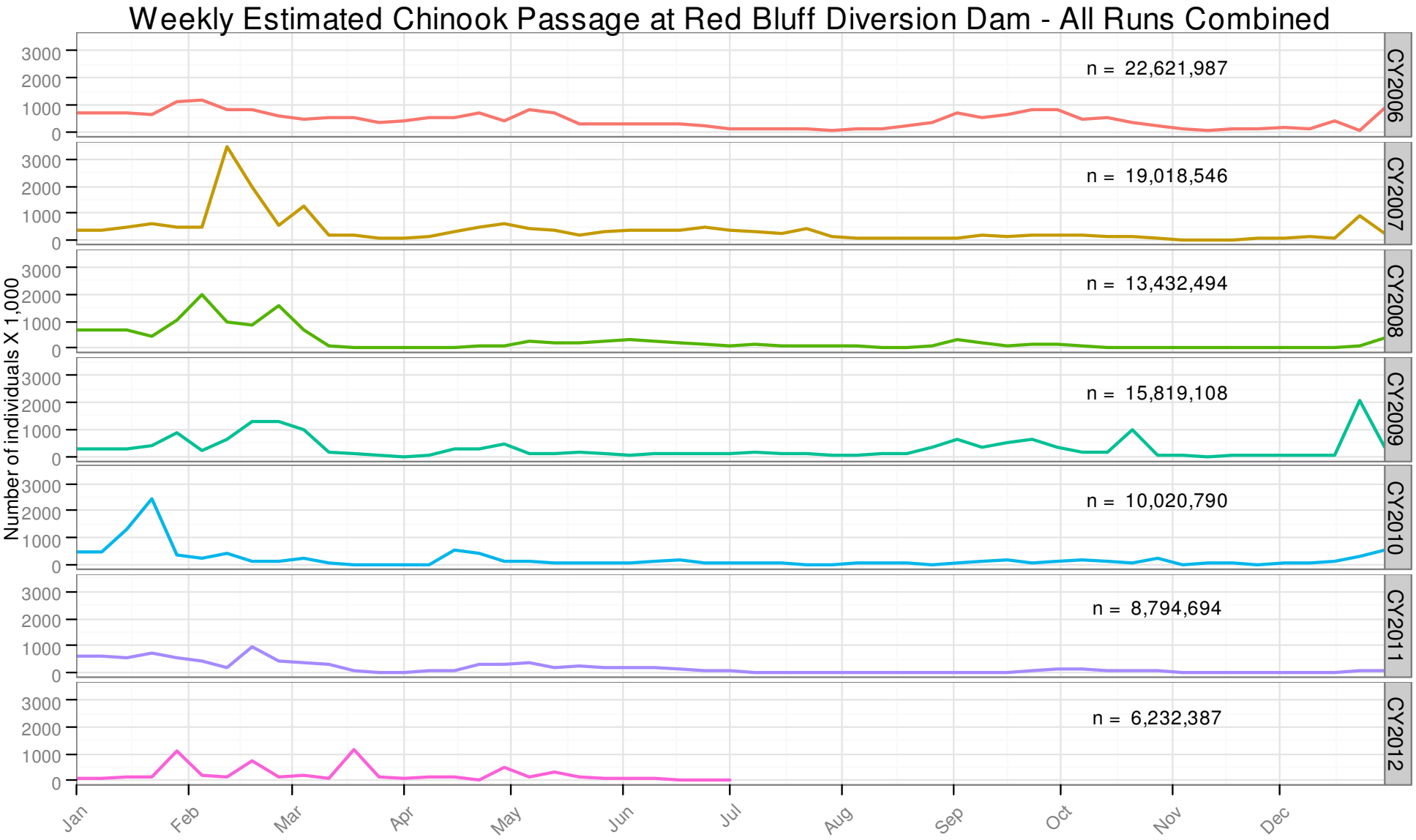

Figure 6. Weekly estimated passage of juvenile Chinook Salmon at Red Bluff Diversion Dam (RK391), by calendar year. Fish were sampled using rotary-screw traps for the period January 1 2006 to June 30 2012