United States Department of the Interior

FISH AND WILDLIFE SERVICE
Red Bluff Fish & Wildlife Office
10950 Tyler Road, Red Bluff, California 96080
(530) 527-3043, FAX (530) 529-0292

April 23, 2014

To: Interested Parties

From: Josh Gruber, Fish Biologist, Red Bluff Fish and Wildlife Office

Subject: Biweekly report (April 9, 2014 - April 22, 2014)

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 April 9, 2014 through April 22, 2014. Race designation was assigned using length-at-date criteria.

This report also contains graphical displays of salmonid passage dating back to 2006 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 233.

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)	BY13 Winter	BY13 Spring	BY13 Fall	BY14 Late-Fall	BY14 RBT
4/9/2014	5,140	15.8	–	–	–	–	–	–
4/10/2014	5,060	16.2	2.7	2,338 (141)	55,028 (79 – 91)	53,928 (36 – 77)	1,671 (35)	0 (–)
4/11/2014	4,940	16.2	2.8	0 (–)	35,059 (79 – 100)	40,740 (36 – 79)	1,075 (34 – 36)	45 (26)
4/12/2014	4,840	16.6	2.2	0 (–)	15,589 (80 – 101)	24,217 (37 – 79)	844 (34 – 36)	0 (–)
4/13/2014	4,630	16.8	–	–	–	–	–	–
4/14/2014	4,500	16.4	–	–	–	–	–	–
4/15/2014	4,340	16.6	1.7	0 (–)	9,748 (82 – 100)	19,736 (44 – 81)	146 (36)	76 (53 – 114)
4/16/2014	4,310	16.7	2.2	91 (153)	5,907 (83 – 94)	21,887 (50 – 82)	295 (33 – 36)	0 (–)
4/17/2014	4,810	16.4	2.2	156 (145)	11,978 (83 – 100)	24,845 (47 – 82)	844 (34 – 36)	0 (–)
4/18/2014	4,810	16.0	2.6	99 (150)	9,194 (84 – 106)	24,749 (40 – 83)	0 (–)	0 (–)
4/19/2014	5,060	15.7	2.1	0 (–)	7,572 (84 – 104)	26,242 (41 – 83)	555 (33 – 36)	0 (–)
4/20/2014	5,010	15.9	2.0	284 (141)	7,184 (85 – 108)	26,881 (41 – 84)	527 (33 – 37)	0 (–)
4/21/2014	4,860	15.2	2.7	44 (155)	4,259 (85 – 109)	15,553 (43 – 84)	220 (34 – 38)	0 (–)
4/22/2014	4,860	14.3	–	–	–	–	–	–
Biweekly Total [2]				**4,878**	**255,768**	**406,103**	**9,386**	**212**
Biweekly Lower 90% Confidence Interval				4	132,614	251,168	4,595	-22
Biweekly Upper 90% Confidence Interval				9,752	378,923	561,039	14,176	445
Brood Year Total				**1,777,704**	**983,564**	**31,360,551**	**22,119**	**10,325**
Brood year Lower 90% Confidence Interval				1,135,099	344,827	3,999,838	9,702	-2,361
Brood year Upper 90% Confidence Interval				2,420,309	1,622,301	58,721,264	34,535	23,011

[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.

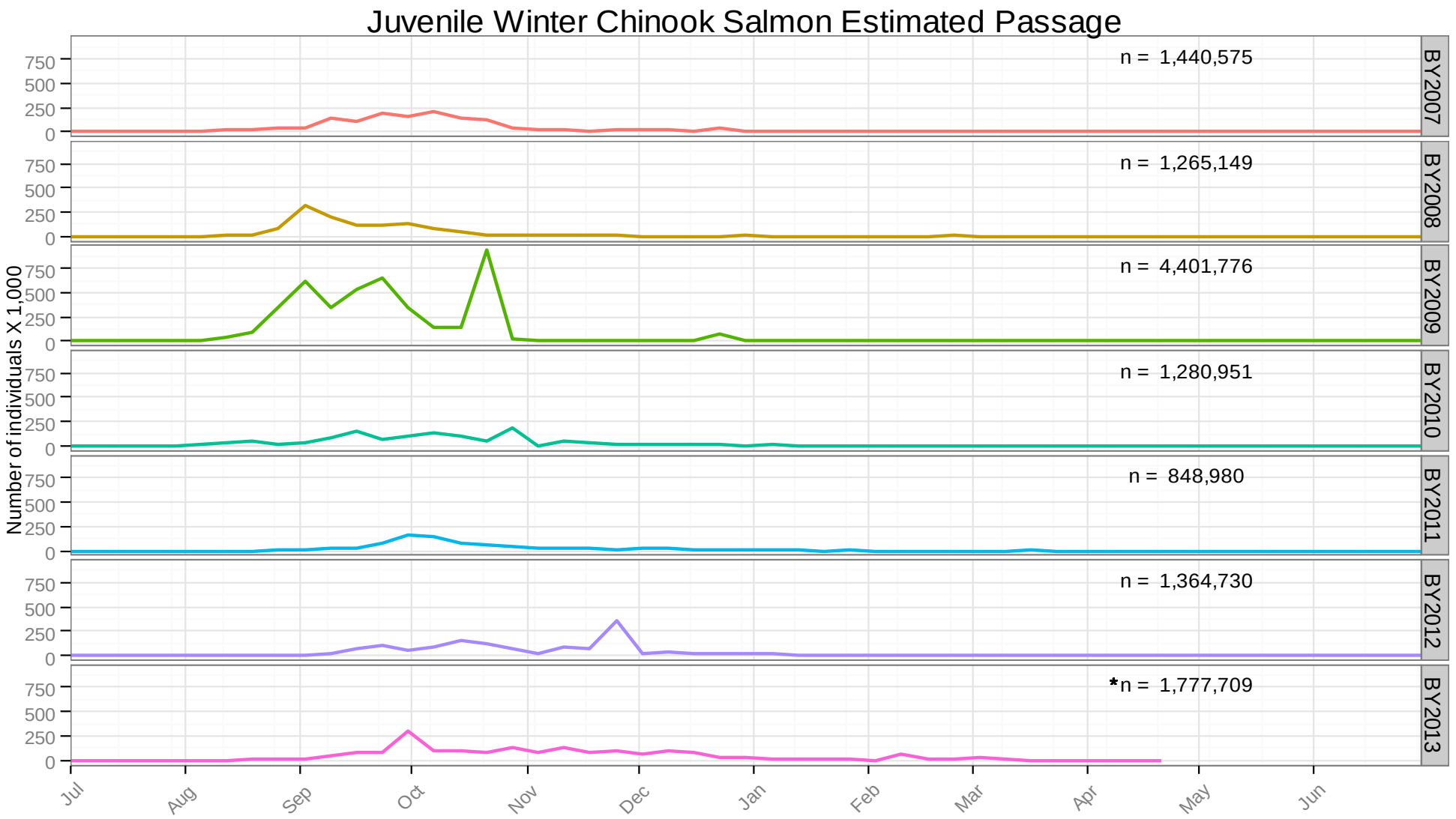

Figure 1. Weekly estimated passage of juvenile winter Chinook Salmon at Red Bluff Diversion Dam (RK391) by brood-year (BY). Fish were sampled using rotary-screw traps for the period July 1, 2007 to present .

*Winter run passage value interpolated using a monthly mean for the period October 1, 2013 - October 17, 2013 due to government shutdown .

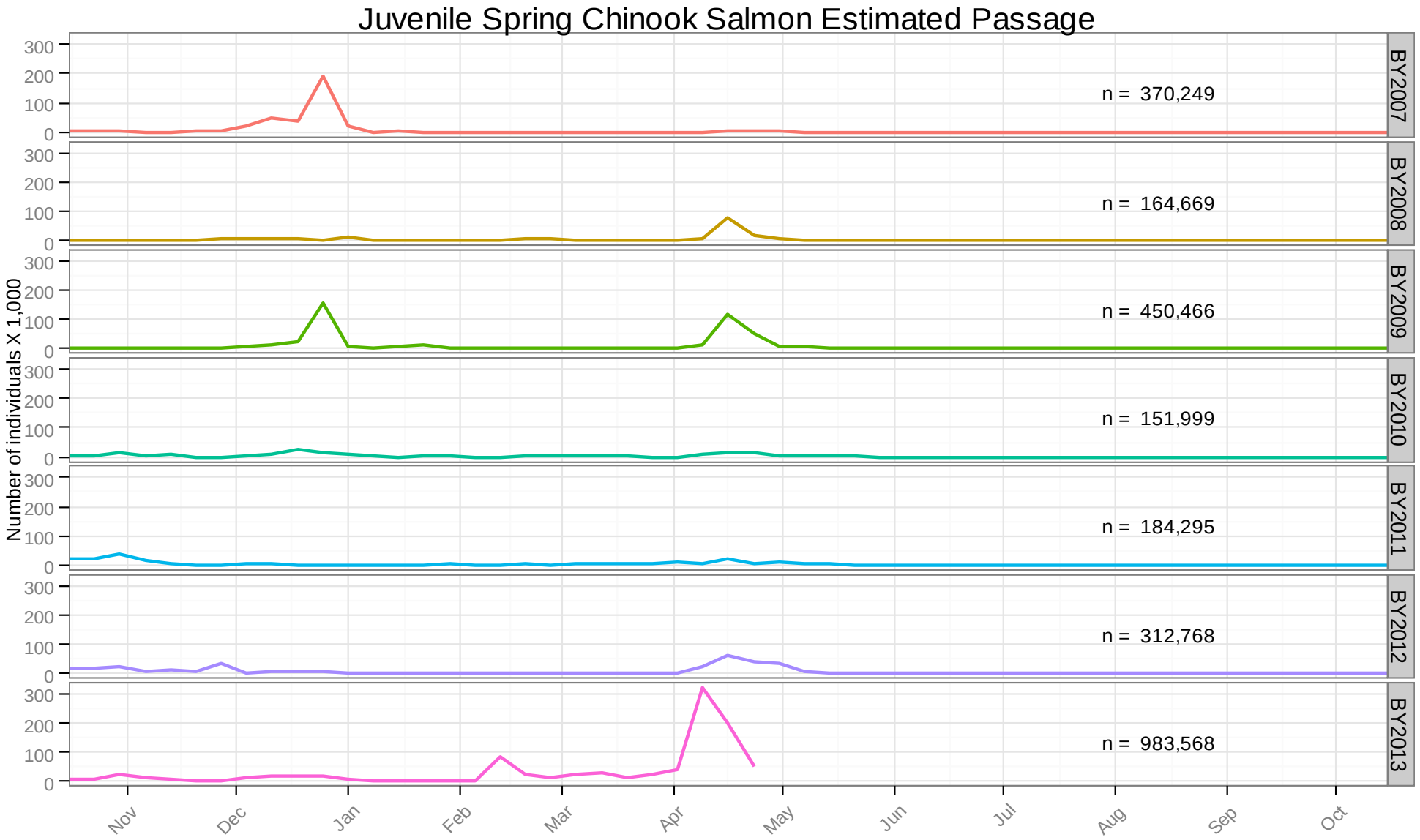

Figure 2. Weekly estimated passage of juvenile Spring Chinook Salmon at Red Bluff Diversion Dam (RK391) by brood-year (BY). Fish were sampled using rotary-screw traps for the period October 16, 2007 to present .

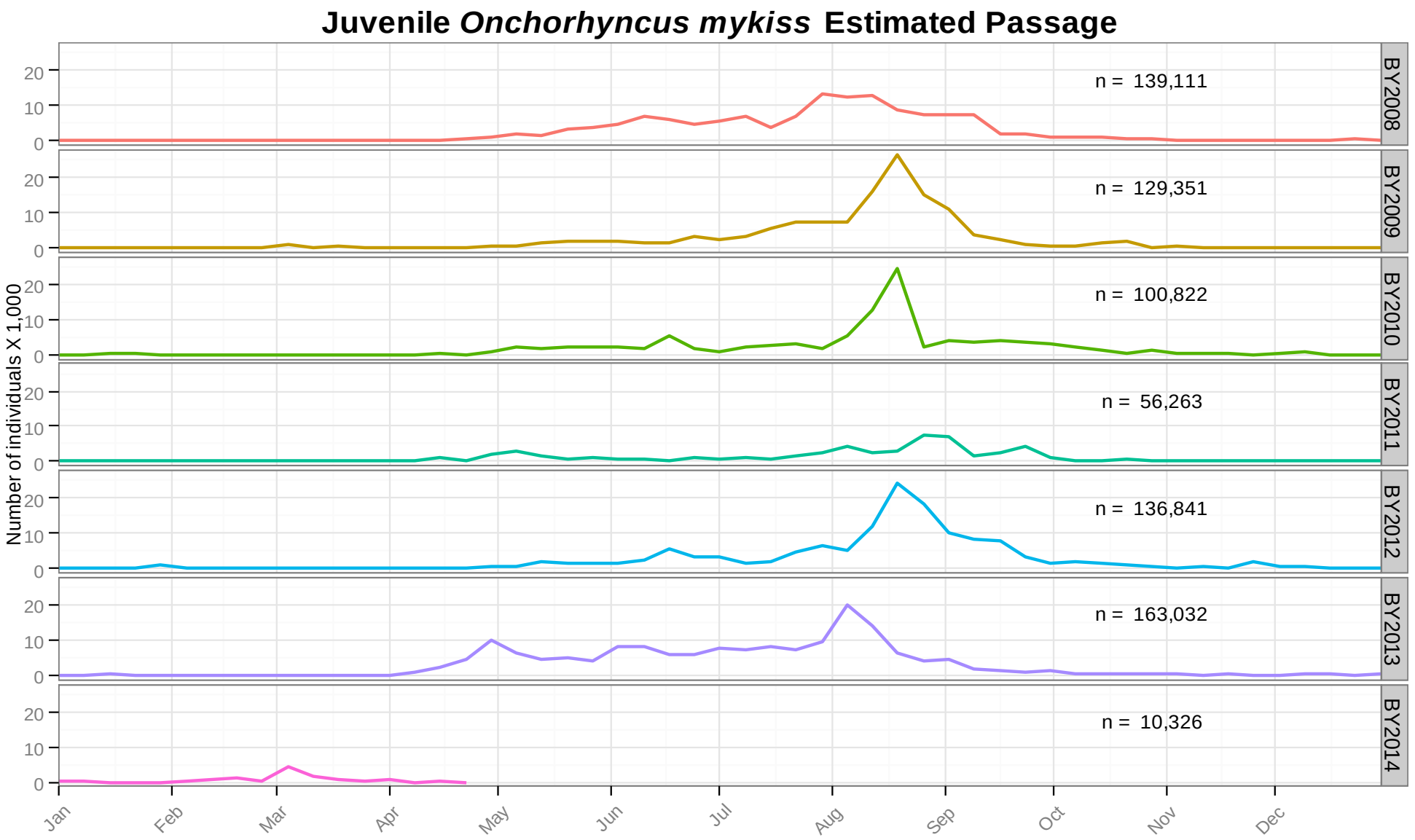

Figure 3. Weekly estimated passage of juvenile Rainbow/Steelhead trout at Red Bluff Diversion Dam (RK391) by brood-year (BY). Fish were sampled using rotary-screw traps for the period January 1, 2008 to present .

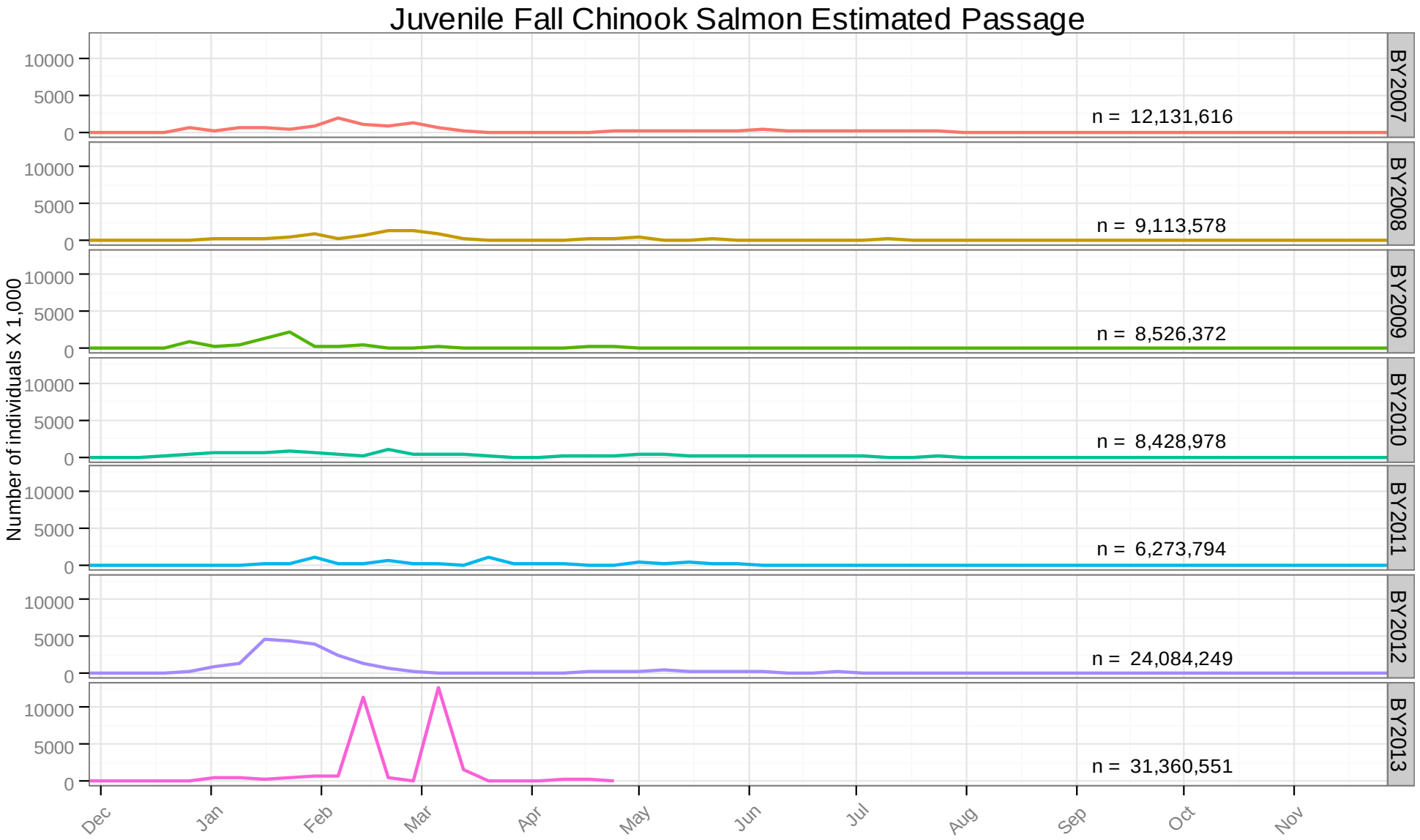

Figure 4. Weekly estimated passage of juvenile Fall Chinook Salmon at Red Bluff Diversion Dam (RK391) by brood-year (BY). Fish were sampled using rotary-screw traps for the period December 1, 2007 to present .

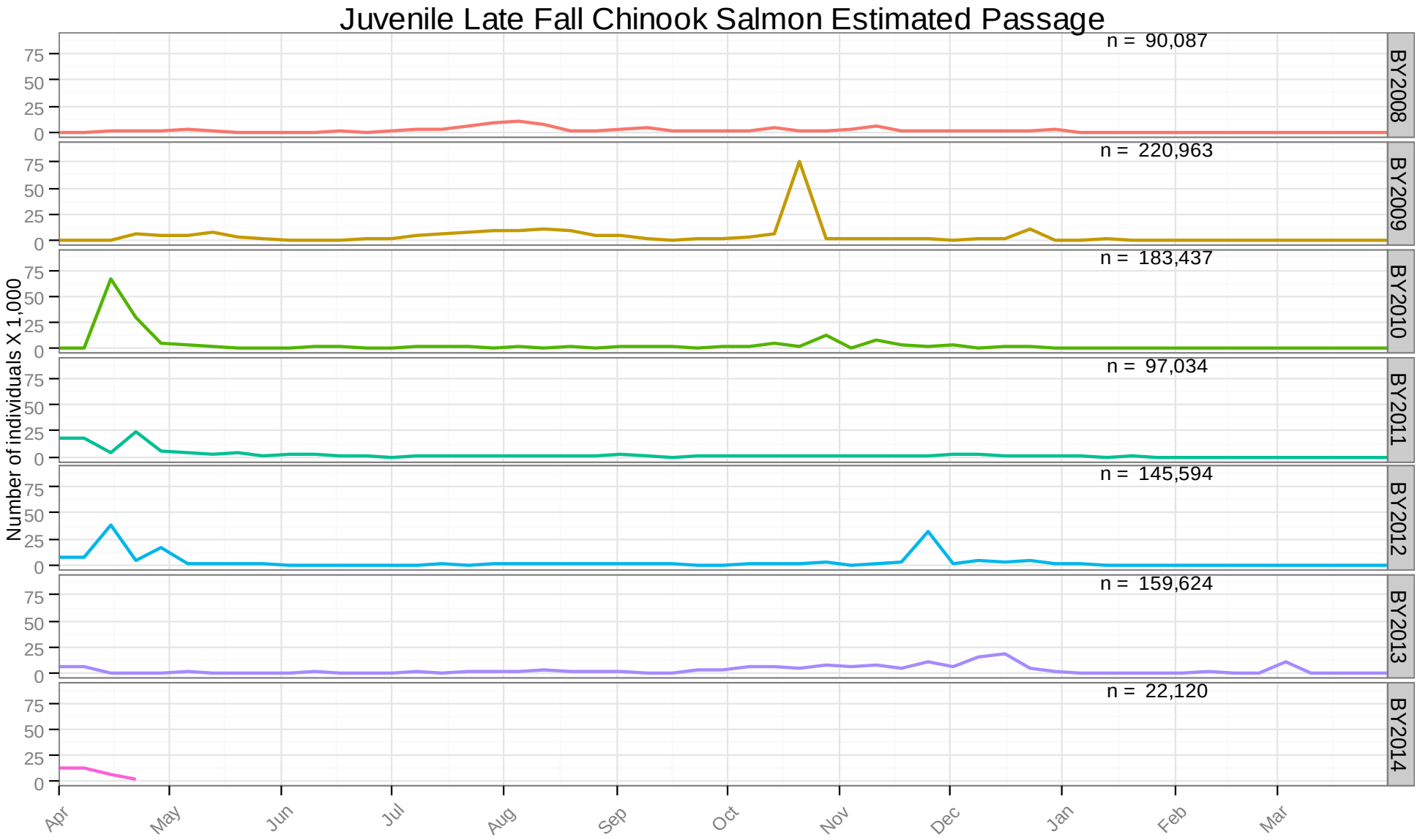

Figure 5. Weekly estimated passage of juvenile Late Fall Chinook Salmon at Red Bluff Diversion Dam (RK391) by brood-year (BY). Fish were sampled using rotary-screw traps for the period April 1, 2008 to present .

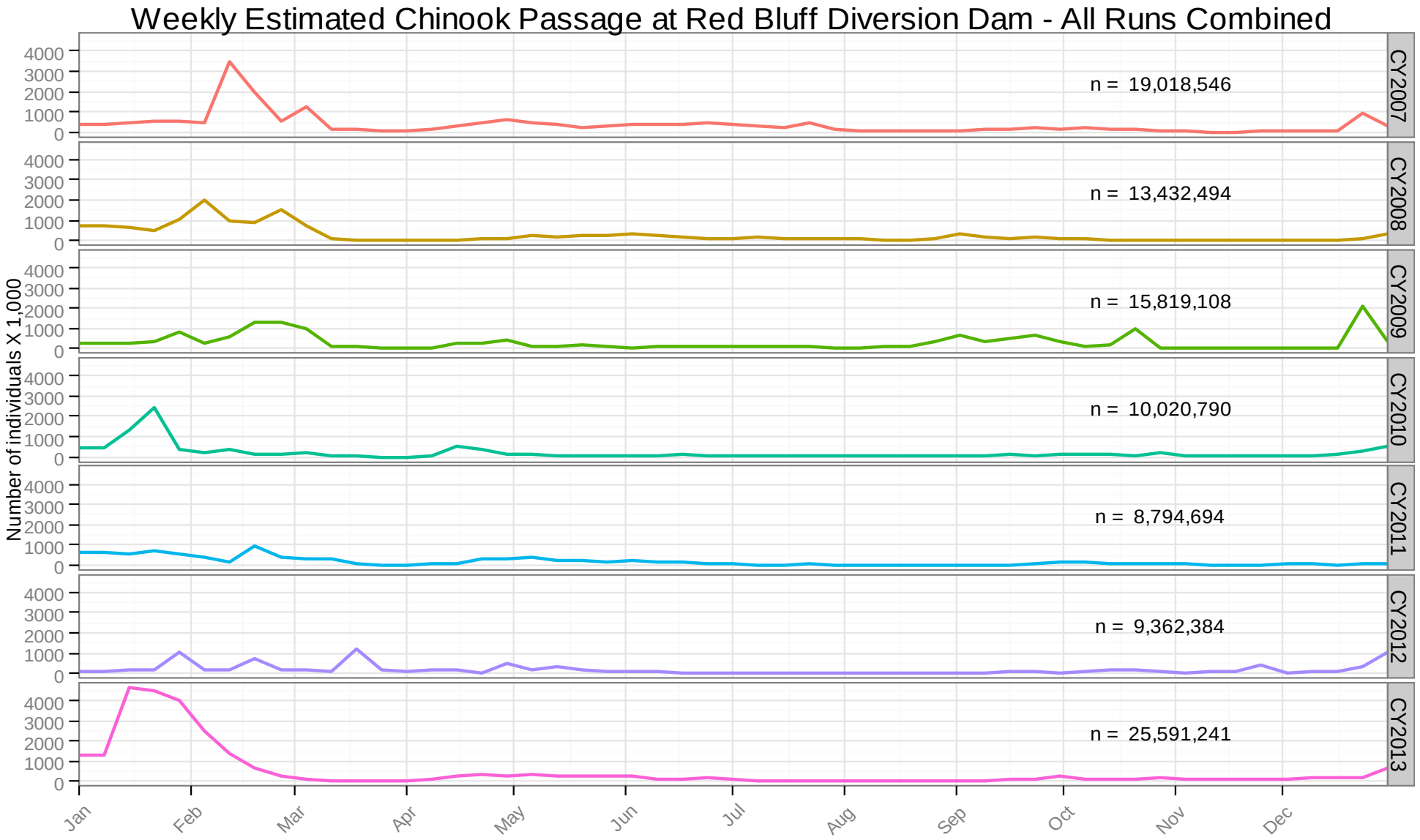

Figure 6. Weekly estimated passage of juvenile Chinook Salmon at Red Bluff Diversion Dam (RK391) by calendar year. Fish were sampled using rotary-screw traps for the period January 1, 2007 to December 31 2013