

May 1, 2014

Folks,

Predation and abundance really increased over the past 2 weeks, but it may be slowing down some now as a few individuals appear to have moved back down to Astoria. The states trapped 6 CSL for removal this week and 3 CSL last week. That brings this year's total to 15 so far.

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STATUS REPORT - PINNIPED PREDATION AND DETERRENT ACTIVITIES AT BONNEVILLE DAM, 2014

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This is the fifth bi-weekly status report for 2014 and summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 1 through April 30, 2014 (unless otherwise noted). Regular daylight observations began January 9 and will continue through the end of May, five days per week excluding holidays. Final predation estimates will be expanded for hours and days not observed, adjusted for “unknown” prey species take, and a night time predation factor is applied at the end of the observation season. Those updated figures will be presented in our annual field report. This report can be found at: <http://www.nwd-wc.usace.army.mil/tmt/documents/fish/>.

PRELIMINARY RESULTS

All data presented here are preliminary as of the status report date. Predation figures are unexpanded (unless otherwise noted) and sea lion abundance estimates will likely change as the season progresses and data are proofed and analyzed. Please use these estimates with appropriate caution. A final report summarizing the results of the 2014 evaluation will be available in the fall of this year.

PINNIPED ABUNDANCE

Things really picked up the past couple of weeks, as the spring Chinook run began to increase rapidly. About 60 California sea lions (*Zalophus californianus* – CSL) have been seen at Bonneville so far this year (Figure 1), and 24 of those are returning individuals. This is similar to 2010, when more “new” CSL were seen at the dam than returning individuals. So far, we have been able to identify a maximum of 27 CSL present on any one day. Steller sea lion (*Eumetopias jubatus* - SSL) numbers have also picked up these past two weeks (Figure 1) but are still averaging much less than the past three years (Figure 2). The maximum number of SSL seen any day so far this year was 41 (Figure 1). We have documented approximately 53 different SSL’s visiting the dam so far. All but 20 of the SSL have been confirmed as seen in past years, although there are likely more new individuals.

PREDATION DATA

Unexpanded numbers for fish observed taken in the Bonneville Dam tailrace for 2014 (through April 30) are:

<i>Prey</i>	<i>California Sea Lions</i>	<i>Steller Sea Lions</i>	<i>Total</i>
Chinook	947	756	1703
Steelhead	7	46	53
Sturgeon	1	72	73
Lamprey	3	1	4
Shad	11	4	15
Smolt	4	0	4
Other	1	10	11
Unknown	59	104	163

Most sturgeon were caught in the powerhouse 2 tailrace, followed by the spillway and powerhouse 1 (Figure 3). Estimated sturgeon catch (expanded for weekends only) is the lowest since we began recording in 2006 (Figure 4). Most sturgeon taken were in the 2 to 4 foot range. Chinook passage really increased the past two weeks (79,874 Chinook and 3,867 steelhead total) from January 1 through April 30. Total salmonid passage is now higher than the past three years, but about average for the past 10 years to date (Figure 6). A single day high of 17,972 salmonids passing on April 30 is the 3rd highest one day total seen since 2002. Total salmonid catch through April 30 (2,456 expanded by interpolating for weekends) has doubled in the last two weeks. It is now slightly above average for all the years we have observed (Figure 5).

DETERRENTS/TRAPPING

Hazing by USDA (land) began on March 1 and will continue until the end of May, seven days a week. CRITFC began hazing from boats March 10.

The states trapped and branded nine CSL last week and five CSL this week at Bonneville Dam. They also captured three CSL that were on the removal list last week and six CSL this week.

OTHER ITEMS OF INTEREST

CRITFC has been doing regular surveys of Phoca Rock (Rm 132) and reported between 0 and 9 SSL most weekdays and 0 to 1 CSL. The sightings have dropped lately, again, corresponding to the influx we have seen at Bonneville recently.

Figure 1. Daily pinniped abundance, by species, at Bonneville Dam, 2014.

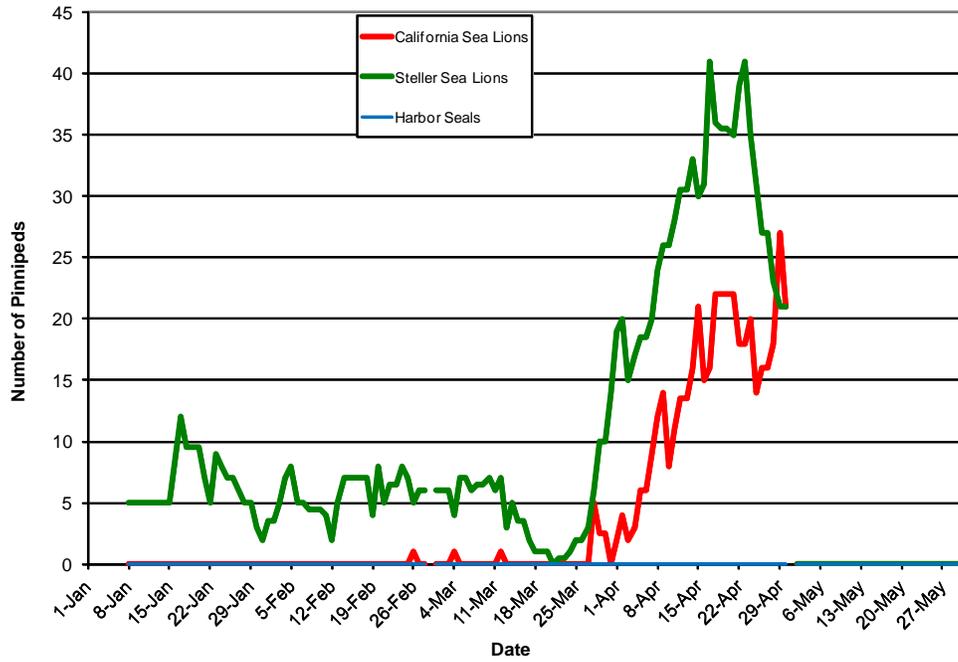


Figure 2. Average daily presence of pinnipeds, by species, to date (April 30) for each year at Bonneville Dam.

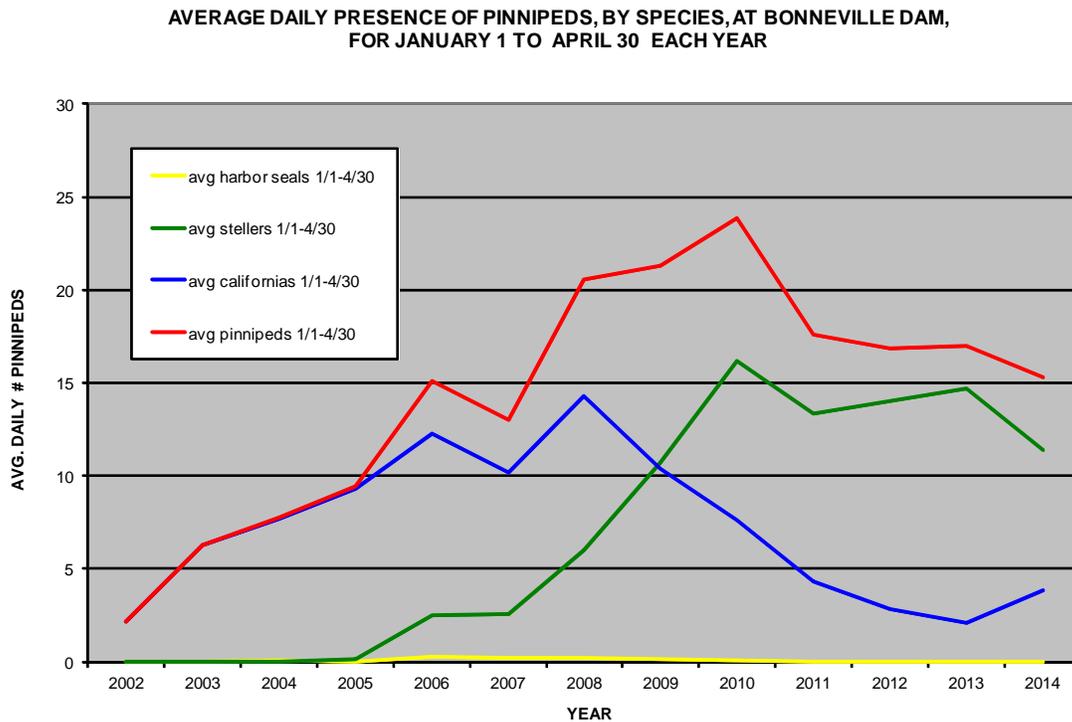


Figure 3. Distribution of prey taken by Pinnipeds by location at Bonneville Dam, through April 30, 2014.

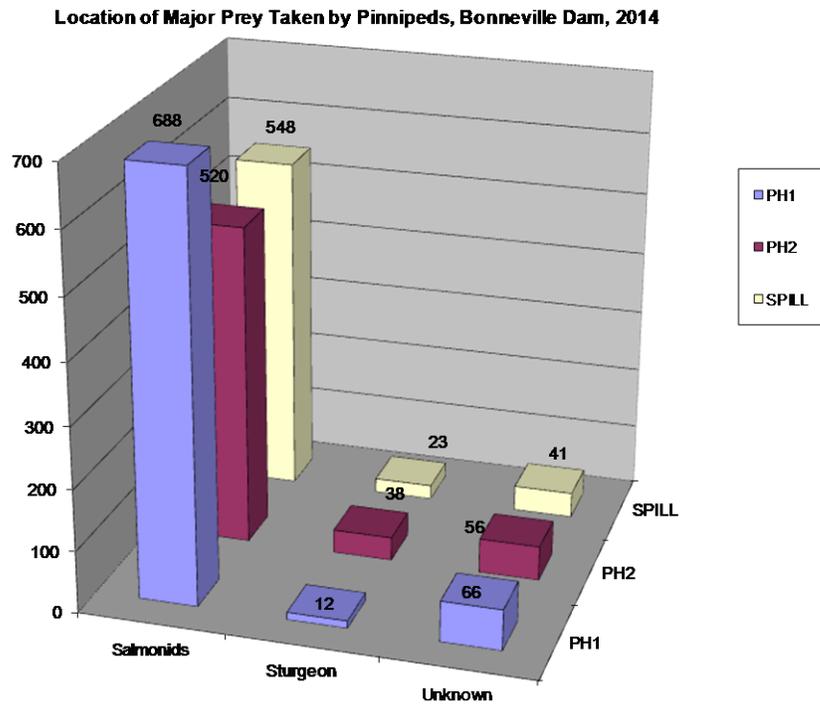


Figure 4. Daily cumulative salmonid catch (interpolated for weekends) at Bonneville Dam, 2002-2014.

Cumulative Expanded Estimates for Salmonid Predation by Pinnipeds at Bonneville Dam, 2002-2014

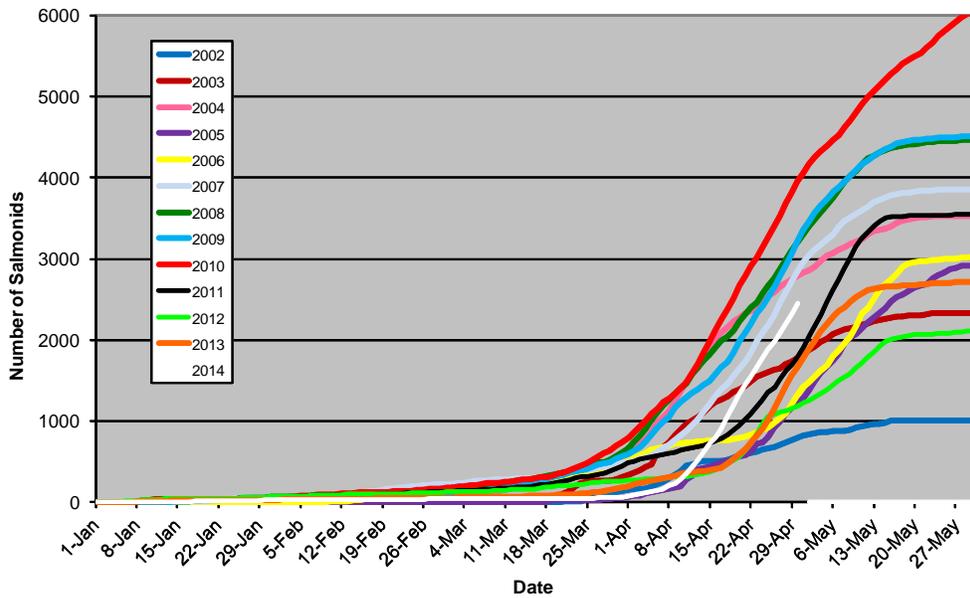


Figure 5. Daily cumulative salmonid catch (interpolated for weekends) at Bonneville Dam, 2002-2014. (White is 2014 catch; data collection started later than normal for 2005.)

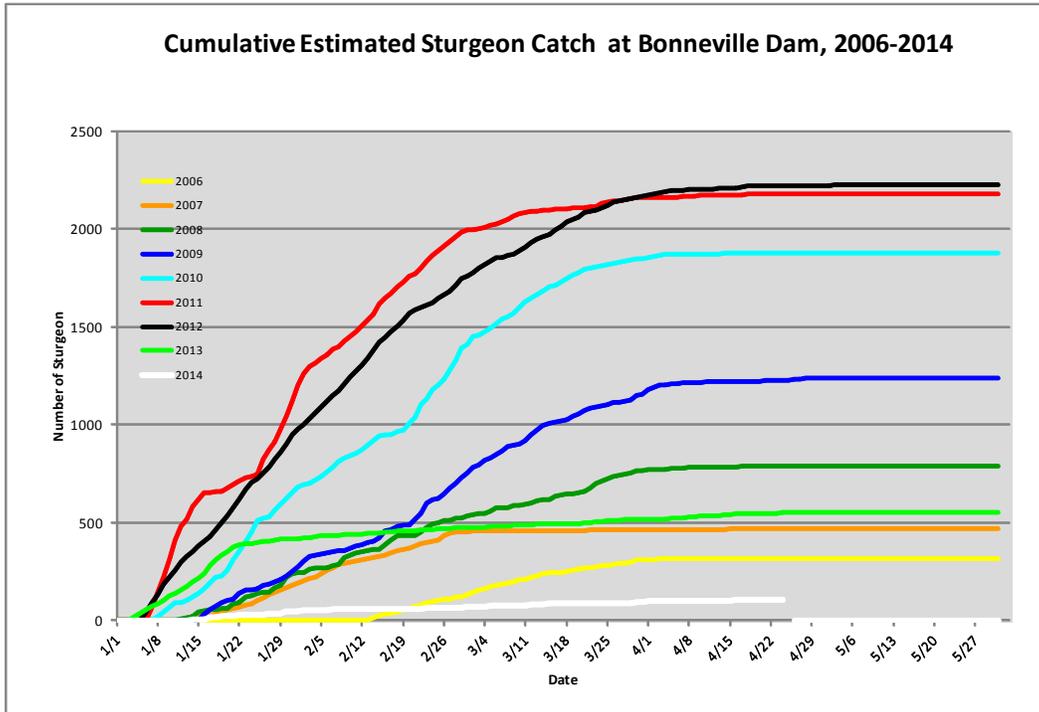


Figure 6. Daily cumulative salmonid passage at Bonneville Dam, 2002-2014. (White is 2014 run).

