

April 17, 2014

Folks,

Huge increase in number of CSL and SSL present as well as Chinook predation the past 2 weeks, not surprisingly, as Chinook passage has increased rapidly. The States have trapped and branded 6 CSL the past 2 weeks and euthanized 6 CSL that were on the removal list here at Bonneville. Also, a tour for congressional representatives from both Washington and Oregon state toured the project April 16 and got briefings on the pinniped monitoring program and branding/removal program.

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

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This is the fourth bi-weekly status report for 2014 and summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 1 through April 16, 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 slowly increase. At least 38 California sea lions (*Zalophus californianus* – CSL) have been seen at Bonneville so far this year (Figure 1), and 21 of those are returning individuals. So far, we have been able to identify a maximum of 21 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 33 (Figure 1). We have documented approximately 44 different SSL’s visiting the dam so far. All but 12 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 16) are:

<i>Prey</i>	<i>California Sea Lions</i>	<i>Steller Sea Lions</i>	<i>Total</i>
<b>Chinook</b>	221	320	541
<b>Steelhead</b>	1	39	40
<b>Sturgeon</b>	1	70	71
<b>Lamprey</b>	0	0	0
<b>Shad</b>	2	2	4
<b>Smolt</b>	4	0	4
<b>Other</b>	0	2	2
<b>Unknown</b>	21	59	80

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 seen since we began recording in 2006 (Figure 4). Most sturgeon taken were in the 2 to 4 foot range. Steelhead and Chinook passage began to pick up the past two weeks (9,277 Chinook and 3,310 steelhead total) from January 1 through April 16. Total salmonid passage is now higher than the past three years, but about average for the past 10 years to date (Figure 6). Total salmonid catch through April 16 (803 expanded by interpolating for weekends) has jumped from one of the lowest on record to about average for all the years (Figure 5). This fits with the significant increase in Chinook catches seen the past two weeks and the influx of many pinnipeds.

## **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 one CSL last week and five CSL this week at Bonneville Dam. They also captured six CSL that were on the removal list this week.

## **OTHER ITEMS OF INTEREST**

CRITFC has been doing regular surveys of Phoca Rock (Rm 132) and reported between 2 and 18 SSL most weekdays and 0 to 3 CSL. The sightings have dropped lately, again, corresponding to the influx we have seen at Bonneville recently.

Matt Tennis of PSMFC reported several days of 400, 700, 800 and 1,000 CSL in the east mooring basin in Astoria the past week, however it has recently dropped to only about 100.

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

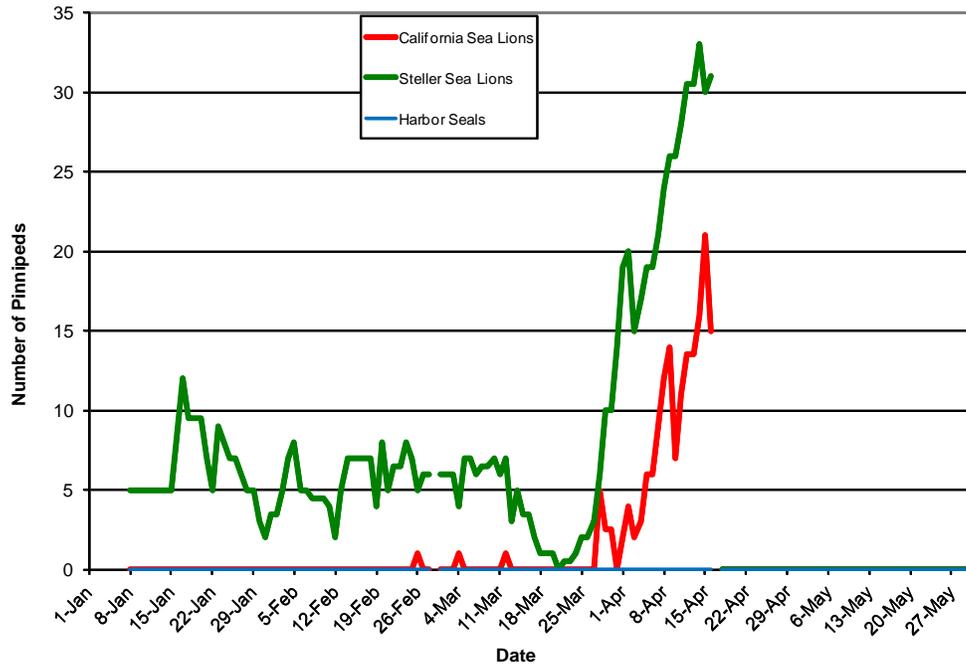


Figure 2. Average daily presence of pinnipeds, by species, to date (April 16) for each year at Bonneville Dam.

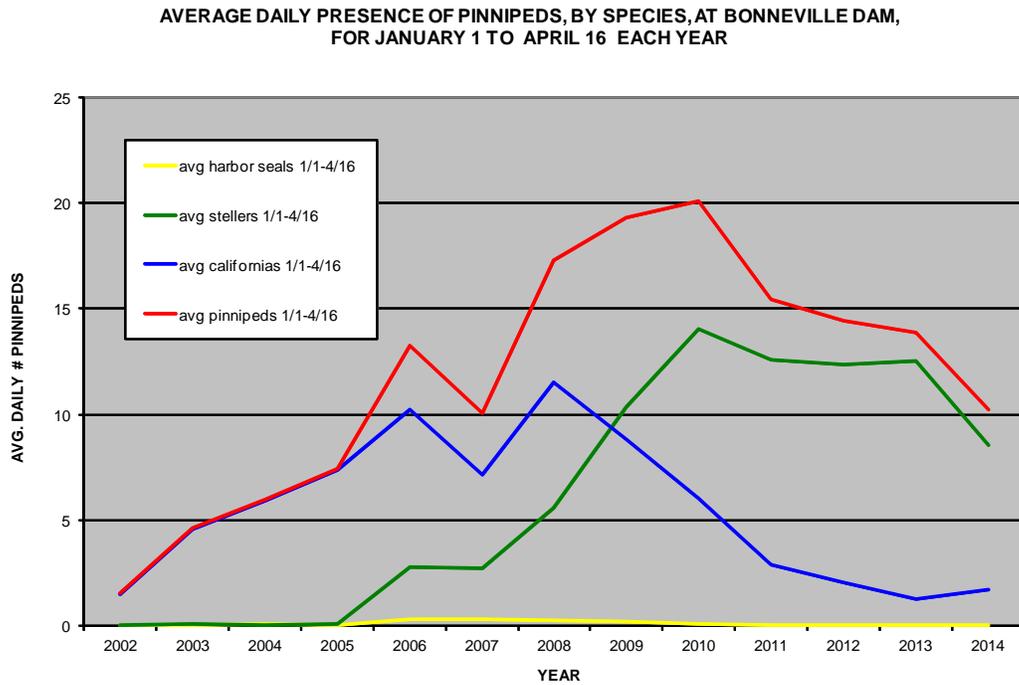


Figure 3. Distribution of prey taken by Pinnipeds by location at Bonneville Dam, through April 16, 2014.

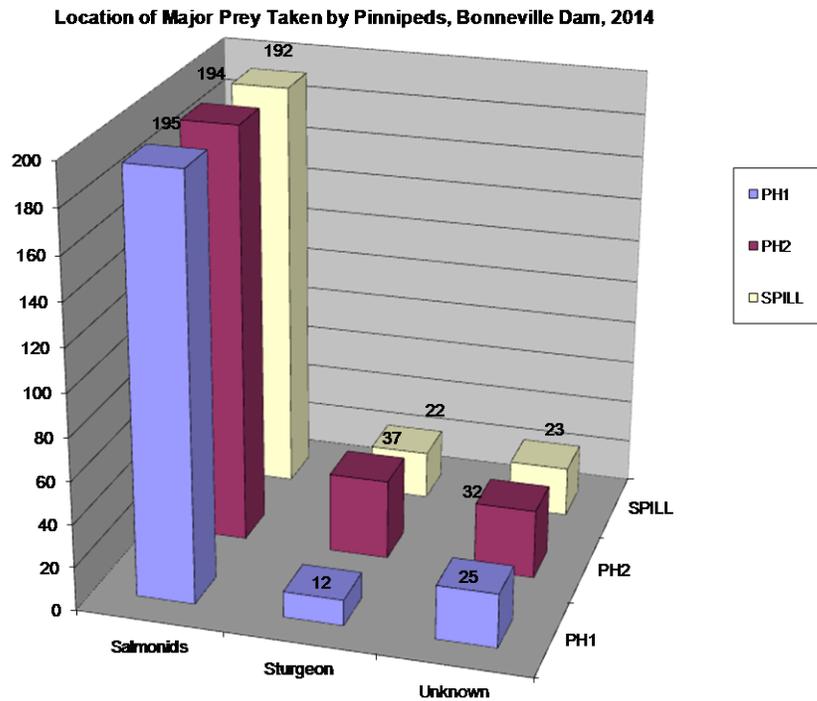
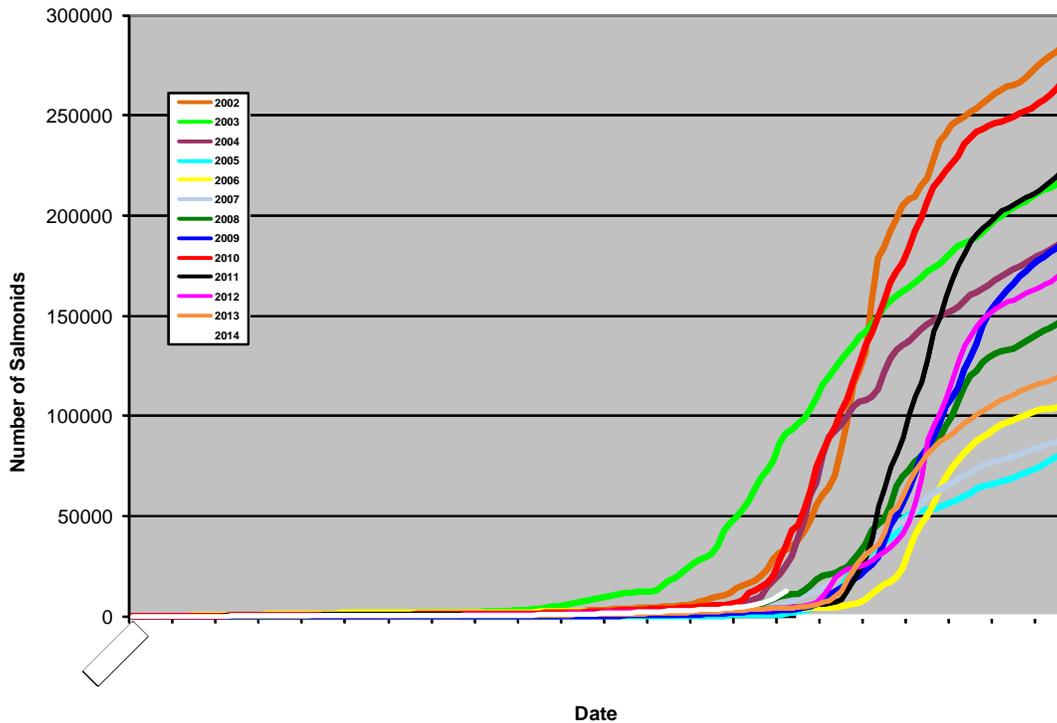


Figure 4. Daily cumulative sturgeon catch (interpolated for weekends) at Bonneville Dam, 2006-2014.



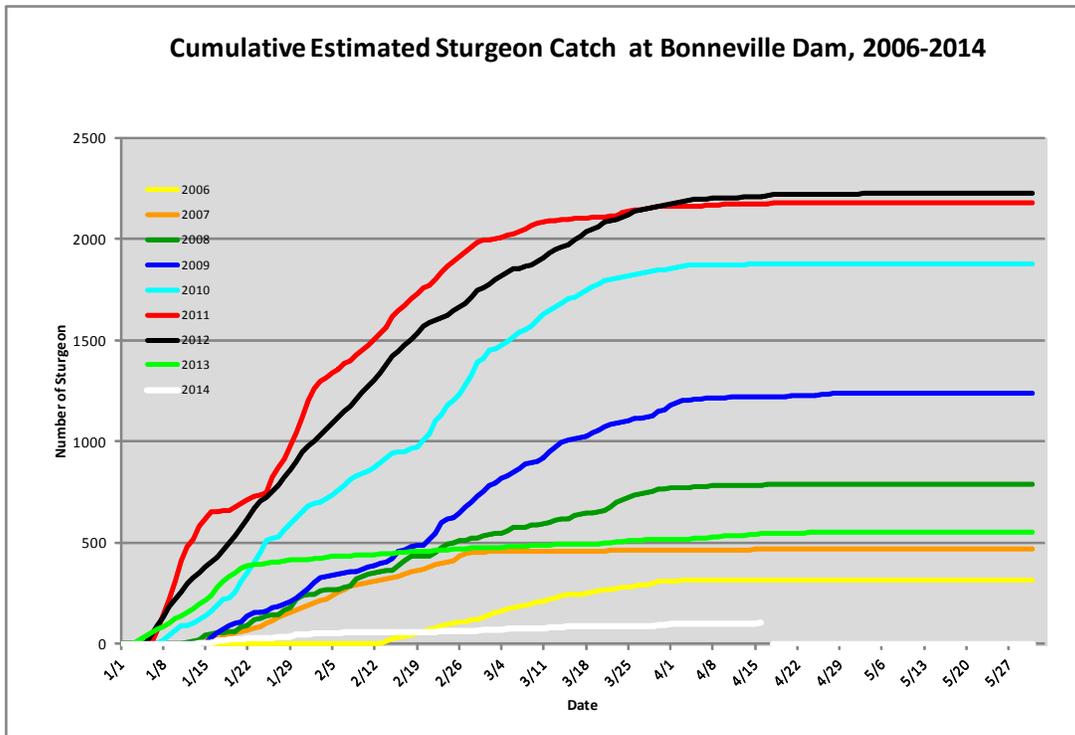


Figure 5. Daily cumulative salmonid catch (interpolated for weekends) at Bonneville Dam, 2002-2014. (White is 2014 catch; data collection started later than normal for 2005.)

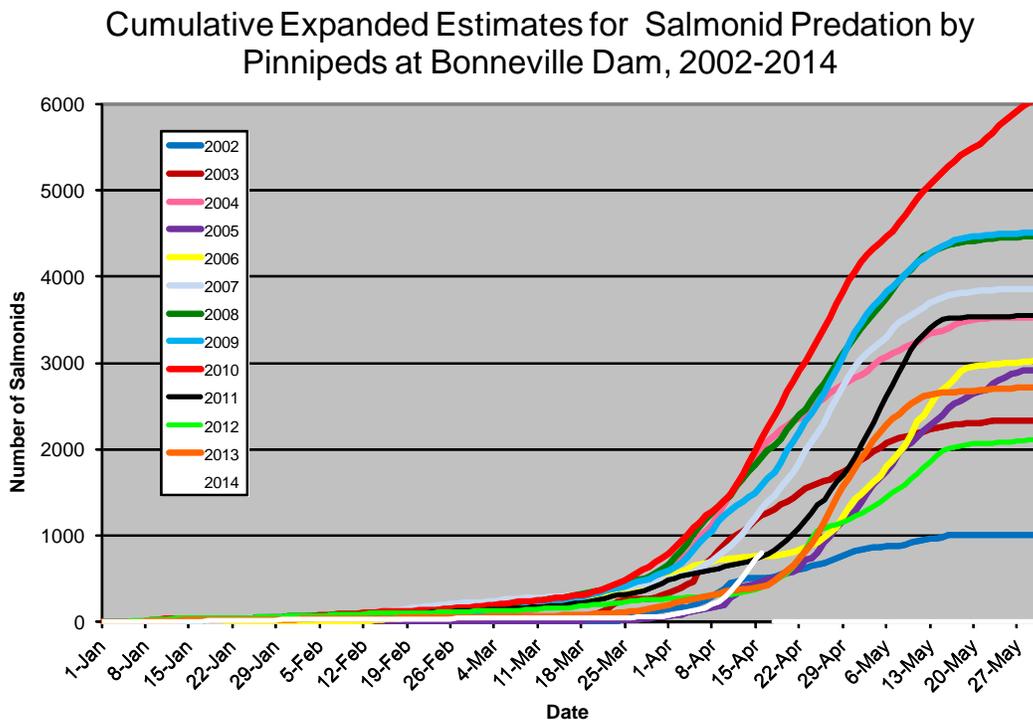


Figure 6. Daily cumulative salmonid passage at Bonneville Dam, 2002-2014. (White is 2014 run).