

# STATUS REPORT - PINNIPED PREDATION AND DETERRENT ACTIVITIES AT BONNEVILLE DAM, 2013

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This is the eleventh weekly status report for 2013 and summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 1 through April 17, 2013 (unless otherwise noted). Regular daylight observations began January 4 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 applies at the end of the observation season and 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/2013/sea\\_lion\\_hazing2013.html](http://www.nwd-wc.usace.army.mil/tmt/documents/fish/2013/sea_lion_hazing2013.html)

## 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, so please use these estimates with appropriate caution. A final report summarizing the results of the 2013 evaluation will be available in the fall of this year.*

### PINNIPED ABUNDANCE

California sea lion (*Zalophus californianus* – CSL) numbers this year are lower than we have ever observed (Figure 1), however many new individuals showed up this past week. The maximum number of CSL seen on any one day so far this year is 12. We’ve identified about 24 so far, seven being repeat individuals from previous years. Steller sea lions (*Eumetopias jubatus* - SSL) numbers are the same as for the past two years at this point (figures 1 and 2). The maximum number of SSL seen any day so far this year was 28 (Figure 1). We have documented approximately 60 different SSL’s visiting the dam so far (including 29 with brands). All but 14 SSL are confirmed as seen in past years, although these figures are preliminary. These figures do not include pinniped numbers that are upstream of Bonneville Dam (at least 4 CSL likely).

## **PREDATION DATA**

Unexpanded numbers for fish observed taken in the Bonneville Dam tailrace for 2013 (through April 17) are:

<i>Prey</i>	<i>California Sea Lions</i>	<i>Steller Sea Lions</i>	<i>Total</i>
<b>Chinook</b>	13	167	180
<b>Steelhead</b>	2	78	80
<b>Sturgeon</b>	0	309	309
<b>Lamprey</b>	1	12	13
<b>Shad</b>	0	72	72
<b>Smolt</b>	0	1	1
<b>Other</b>	60	6	66
<b>Unknown</b>	3	94	97

Spring Chinook numbers passing Bonneville Dam are still low (2,019 Chinook and 2,393 steelhead from January 1 through April 17), very similar to four of the last five years (2010 being a high run year which skews the average) (Figure 6). Predation by SSL (primarily) and CSL on salmonids has increased, but still lags behind any previous year observed. Total salmonid catch through April 17 (355 expanded by interpolating for weekends) is the lowest we have ever documented (Figure 5). Salmonids have been caught almost equally between powerhouse one and powerhouse two tailrace, while somewhat less are caught at the spillway (Figure 3). Sturgeon catch (478 expanded by interpolating for weekends only) is the lowest rate since 2007 at this time of year (Figure 4), most being taken in the 2 to 4 foot range. The jump in “Other” prey is primarily due to small CSL’s eating small fish in the spillway that either could be smolts or small peamouth (we haven’t been able to ID for sure yet...the action is too fast).

## **DETERRENTS**

Hazing by USDA (land) began on March 4 and will continue until the end of May, seven days a week. CRITFC also began hazing from boats March 4. The states trapping information and results can be found at ODFW’s website (<http://www.dfw.state.or.us/fish/SeaLion/index.asp>). One CSL was trapped and euthanized by the states this week. The states will also be placing a trap in the Bonneville pool to attempt to trap the CSL upstream of Bonneville Dam.

## **OTHER ITEMS OF INTEREST**

One night observation was conducted this past week with more SSL activity seen and at least one CSL, but only one catch observed (by the CSL).

Figure 1. Daily pinniped abundance, by species, at Bonneville Dam, 2013.

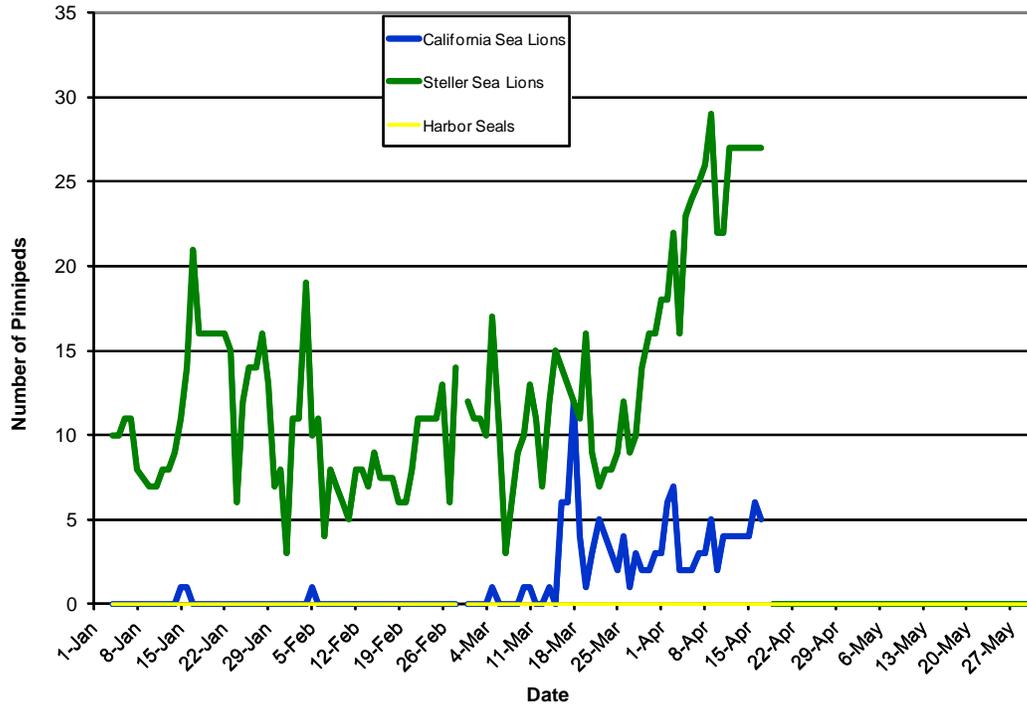


Figure 2. Average daily presence of pinnipeds, by species, to date (April 17) for each year at Bonneville Dam.

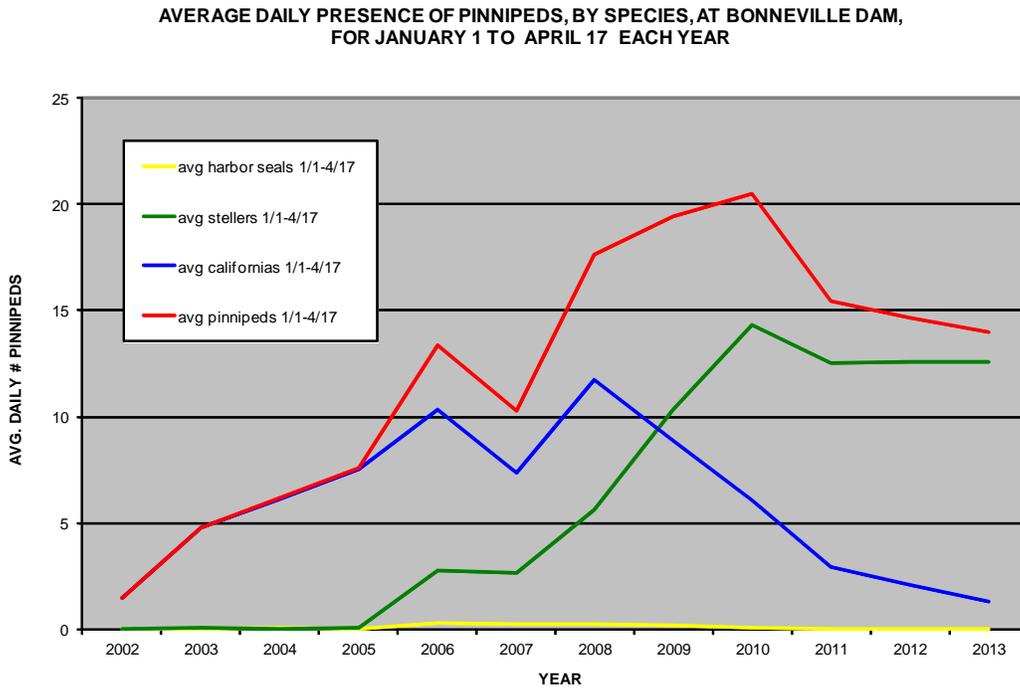


Figure 3. Distribution of prey taken by Pinnipeds by location at Bonneville Dam, through April 17, 2013.

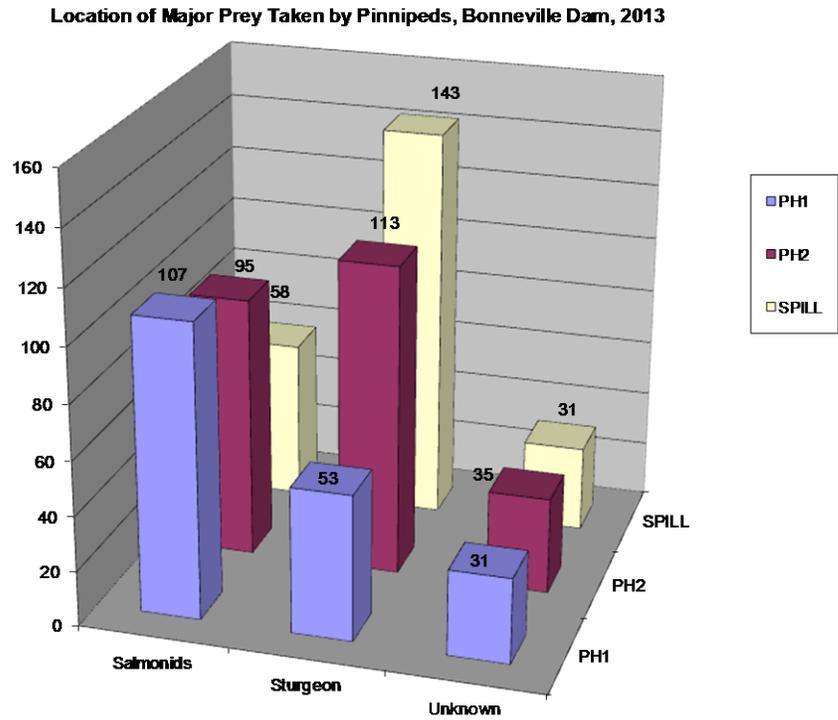


Figure 4. Daily cumulative sturgeon catch (interpolated for weekends) at Bonneville Dam, 2006-2013.

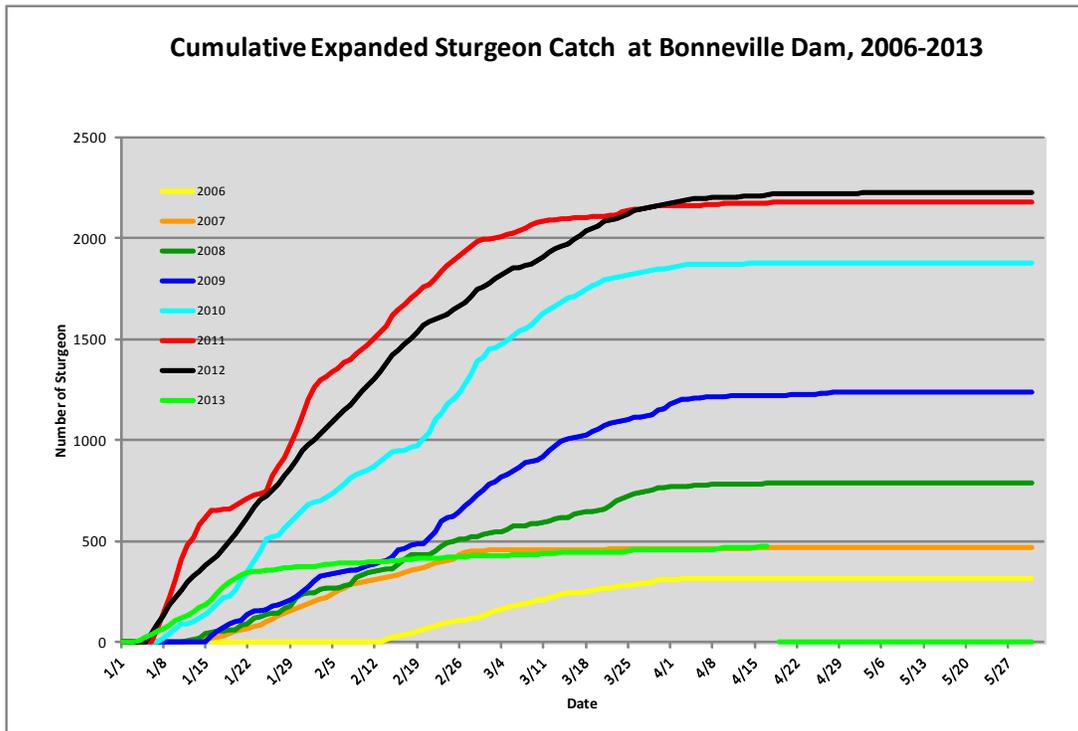


Figure 5. Daily cumulative salmonid catch (interpolated for weekends) at Bonneville Dam, through April 17 for 2002-2013.

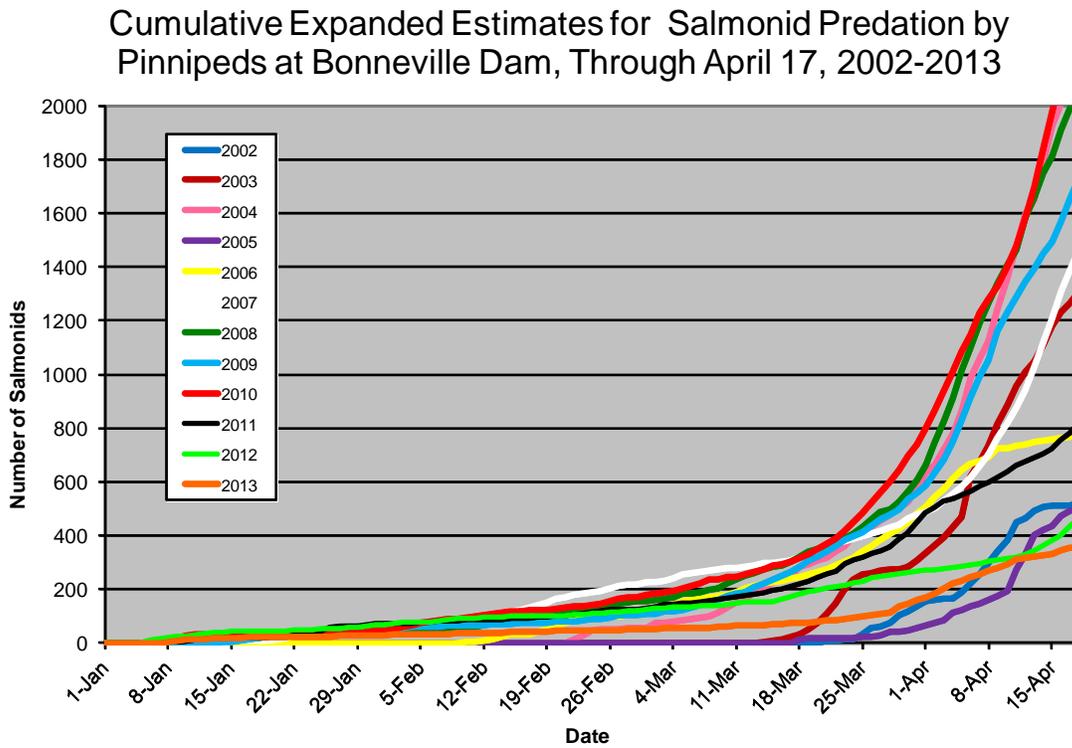


Figure 6. Cumulative salmonid passage at Bonneville Dam for 2013 and the 5 and 10 year averages to date.

