

# STATUS REPORT - PINNIPED PREDATION AND DETERRENT ACTIVITIES AT BONNEVILLE DAM, 2012

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This is the seventh weekly status report for 2012 and summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 1 through April 11, 2012 (unless otherwise noted). Regular daylight observations began January 6 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/2012/>.

## 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 2012 evaluation will be available in the fall of this year.*

### PINNIPED ABUNDANCE

California sea lions (*Zalophus californianus* – CSL) numbers grew on average this past week (Figure 1), with up to 10 seen in one day. Steller sea lions (*Eumetopias jubatus* - SSL) are slightly less abundant as last year (figures 1 and 2). The maximum number of SSL seen any day so far this year was 20 and eight for CSL (Figure 1). SSL and CSL average numbers present per day this year is now lower for both than last year (Figures 2), which is the lowest for CSL since 2002. We have documented approximately 56 different SSL’s visiting the dam so far and 18 CSL. At least 26 of the SSL are confirmed as seen in past years, and 15 of the CSL.

## **PREDATION DATA**

Unexpanded numbers for fish observed taken in the Bonneville Dam tailrace for 2012 (through April 11) are:

<b><i>Prey</i></b>	<b><i>California Sea Lions</i></b>	<b><i>Steller Sea Lions</i></b>	<b><i>Total</i></b>
<b>Chinook</b>	38	24	62
<b>Steelhead</b>	37	89	126
<b>Sturgeon</b>	0	1327	1327
<b>Lamprey</b>	5	1	6
<b>Shad</b>	3	25	28
<b>Smolt</b>	0	0	0
<b>Other</b>	0	0	0
<b>Unknown</b>	9	191	200

It is likely that at least 90% of the unknown fish caught by Steller sea lions were sturgeon. The Steller sea lions are catching many of the fish at the downstream range of our viewing area, making fish identification very difficult. Most sturgeon have been caught in powerhouse 2 tailrace, followed closely by the spillway, while relatively few are caught at powerhouse 1 (Figure 3). Sturgeon catch (expanded for weekends only) is less than last years at this time (Figure 4), but still higher than previous years, most taken being in the 2 to 4 foot range. This year there seems to be more of the larger sturgeon taken than previous years, however there are also many more with no recorded size associated with them. Few fish are passing the count stations (3,478 steelhead and 181 Chinook) from January 1 through April 12. The low Chinook count is indicating a late run this year, with a lower cumulative count through April 12 than the last several years at least. Total salmonid catch by sea lions through April 11 (255 expanded by interpolating for weekends) is lower than any year since we began observing (2011 – 659, 2010 – 1479, 2009 – 1,289, 2008 – 1,463, 2007 - 877, 2006 – 732, 2005 – 276, 2004 – 1,478, 2003 - 959, 2002 - 447). Figure 5 shows just how few salmonids have been caught so far this year compared to previous years.

## **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 5th.

The states trapped eleven Steller sea lions last week, six already had brands and were released, two were too large for the squeeze cage used for branding, and the remaining three were branded (O31-O33) and released. Six California sea lions were also trapped this week, two were on the list for removal (C016 and C779), and were euthanized. Two were branded (one given a GPS tag) and released. The final two were already branded and they were fitted with GPS tags and released.

## OTHER ITEMS OF INTEREST

CRITFC conducted a survey from the I205 bridge to Tanner Creek earlier this week and spotted nine SSL in the water (one with a sturgeon kill) and three CSL in the water (one with a Chinook kill). They also spotted 22 SSL and one CSL on Phoca Rock. During the same time period, we had at least nine SSL and four CSL in the Bonneville Dam tailrace area and observed one sturgeon and six Chinook being preyed upon by the pinnipeds.

We conducted another night observation last week and documented growing numbers of SSL and CSL near resting areas as the night progressed, but at least one SSL and one CSL continued to hunt near the dams late into the night. No predation events were detected.

There was another reported sighting of possibly two CSL in the Ft. Rains area and Stevenson area upstream of Bonneville Dam on April 11. We continue to monitor when time and personnel permit.

Figure 1. Daily pinniped abundance, by species, at Bonneville Dam, 2012.

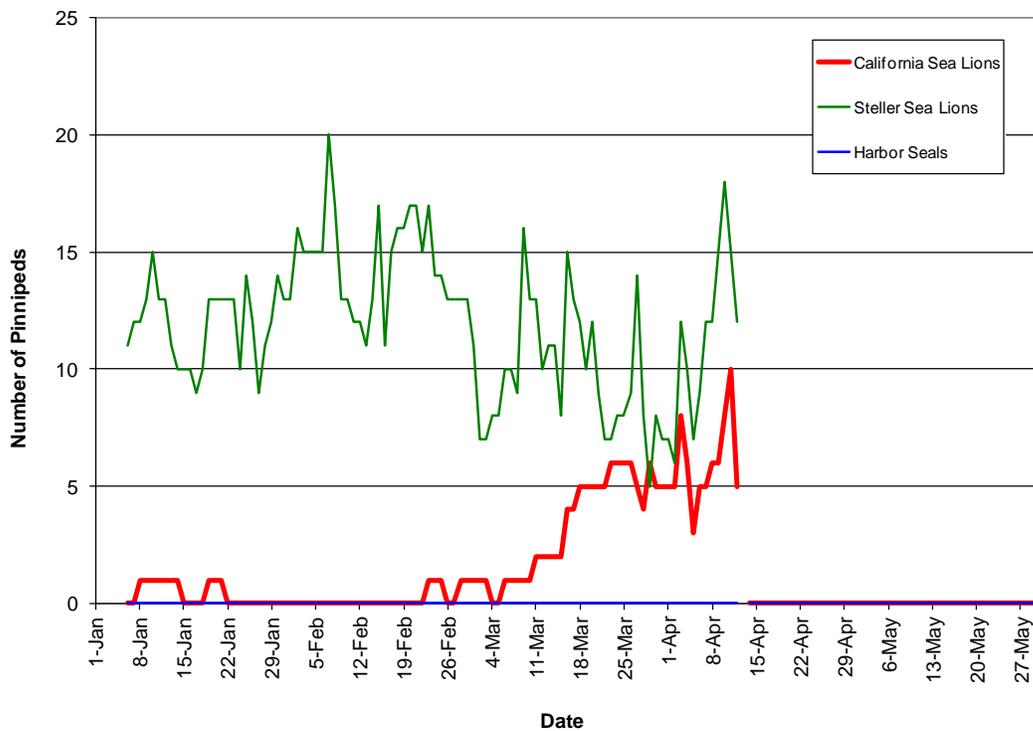


Figure 2. Average daily presence of pinnipeds, by species, to date (April 12) for each year at Bonneville Dam.

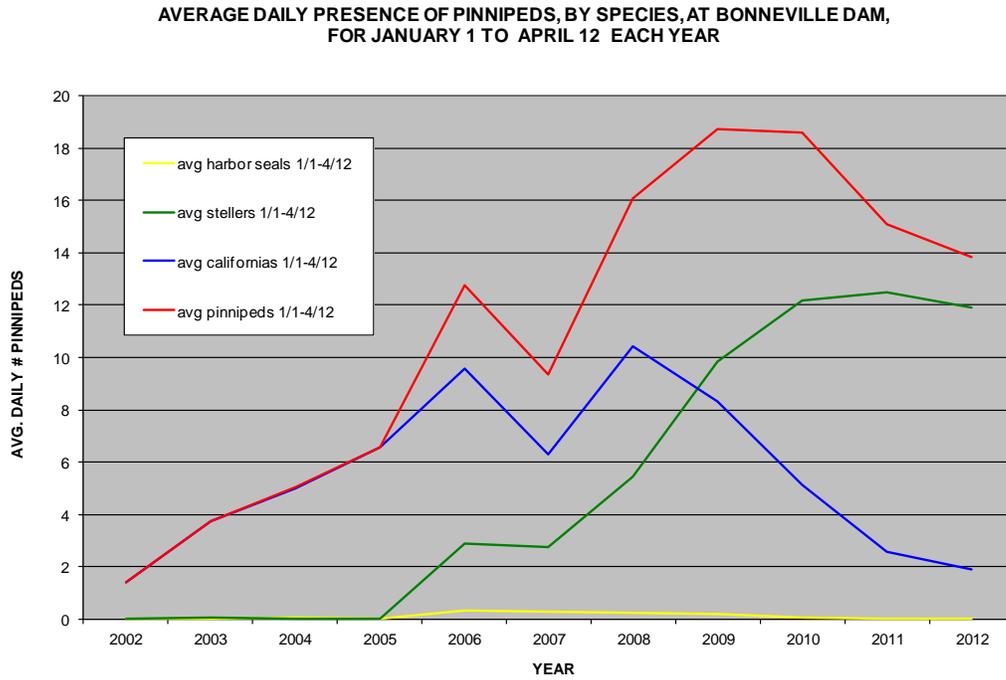


Figure 3. Distribution of prey taken by Pinnipeds by location at Bonneville Dam, through April 11, 2012.

