

# STATUS REPORT - PINNIPED PREDATION AND DETERRENT ACTIVITIES AT BONNEVILLE DAM, 2011

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This is the fourth weekly status report for 2012 and summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 1 through March 21, 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 began to pick up this week (Figure 1), with up to five seen in one day. Steller sea lions (*Eumetopias jubatus* - SSL) are as abundant as last year (figures 1 and 2). The maximum number of SSL seen any day so far this year was 20 and only five for CSL (Figure 1). SSL and CSL average numbers present per day this year is virtually identical to last year (Figures 2), which is a high for SSL and the lowest for CSL since 2002. We have documented approximately 45 different SSL's visiting the dam so far and seven CSL. At least 24 of the SSL are confirmed as seen in past years, and five of the CSL.

Several SSL have been observed hauling out inside the end of the corner collector outfall most mornings, and a few have been using the traps as well, but not in the past couple of weeks.

### PREDATION DATA

Unexpanded numbers for fish observed taken in the Bonneville Dam tailrace for 2012 (through March 21) are:

<u>Prey</u>	<u>California Sea Lions</u>	<u>Steller Sea Lions</u>	<u>Total</u>
<b>Chinook</b>	15	8	23
<b>Steelhead</b>	23	79	102
<b>Sturgeon</b>	0	1256	1256
<b>Lamprey</b>	0	1	1
<b>Shad</b>	2	24	26
<b>Smolt</b>	0	0	0
<b>Other</b>	0	0	0
<b>Unknown</b>	5	163	168

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. Few fish are passing the count stations (2,125 steelhead and 31 Chinook) from January 1 through March 21, more than last year but less than 2010 and about average for the past several years. Total salmonid catch (primarily by Steller sea lions) through March 21 (161 expanded by interpolating for weekends) is lower than any year since 2003, excluding 2005 in which we did not begin observations until late in the season (2011 – 269, 2010 – 390, 2009 – 361, 2008 – 371, 2007 - 367, 2006 – 288, 2005 – 17, 2004 – 338, 2003 143, 2002 - 8).

### **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 five Steller sea lions on March 20, three already had brands and were released, the other two were branded (O24 and O25). A GPS tag was also affixed to O24. No California sea lions were trapped this week.

NOAA Fisheries authorized the states of Oregon, Washington, and Idaho to permanently remove specific California sea lions eating endangered salmon below Bonneville Dam last week, to become effective March 20, 2012 and in effect through May 2016. The HSUS tried to get a temporary restraining order this week against the states preventing them from removing any California sea lions, however, the judge denied the order and the full case will be heard later.

### **OTHER ITEMS OF INTEREST**

CRITFC conducted a boat survey of pinniped presence and predation observations between Tanner Creek (just below the Bonneville Dam tailrace boat restricted zone) to the I205 bridge between 1100h and 1430h on March 16th. At least 13 Steller sea lions were observed in the

river, five of those in the process of eating sturgeon, plus 38 Steller sea lions hauled out on Phoca Rock, for a total of 51 Steller sea lions. Two California sea lions were also observed in the river. During that same time period, there were at least 6 Stellers and 4 California sea lion present in the Bonneville Dam tailrace, and combined they took 6 sturgeon, 7 salmonid, and 2 unidentified fish.

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

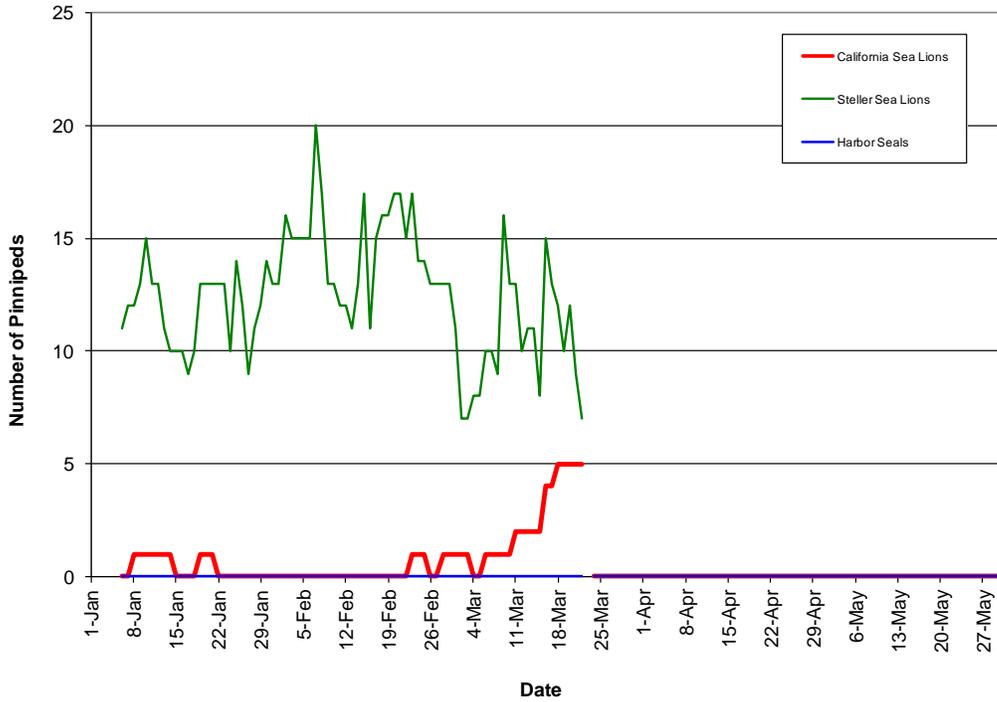


Figure 2. Average daily presence of pinnipeds, by species, to date (March 22) for each year at Bonneville Dam.

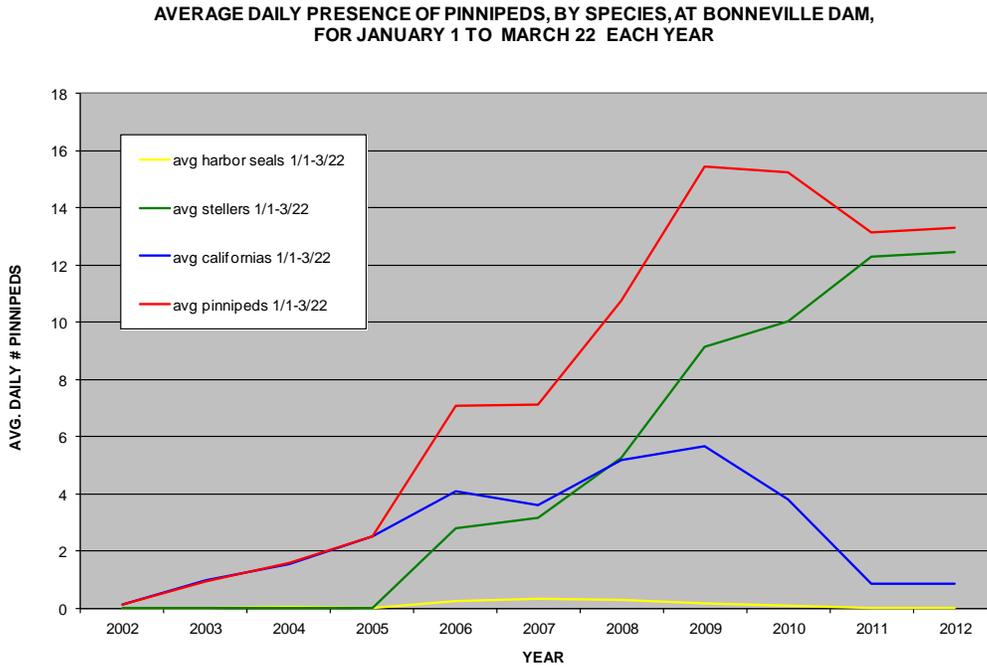


Figure 3. Distribution of prey taken by Pinnipeds by location at Bonneville Dam, through February 22, 2012.

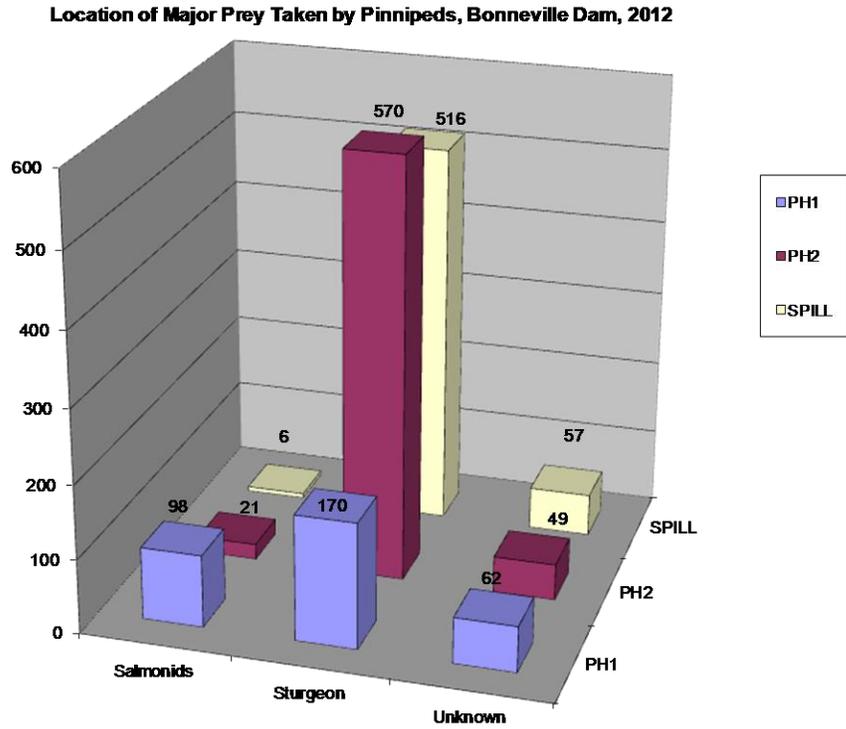


Figure 4. Daily cumulative sturgeon catch (interpolated for weekends) at Bonneville Dam, 2006-2012.

