

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

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This is the second weekly status report for 2012 and summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 1 through March 1, 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) have remained scarce so far this year (Figure 1), with only two individuals seen but not during the same day. However, CSL were observed on January 9 of this year, more than a month earlier than last year, and by the same individual that arrived first last year. 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 1 for CSL (Figure 1). So far, there are slightly more SSL present per day on average this year compared to last year, but average CSL per day are as low as they were last year (Figures 2). The drop in SSL numbers coincided with the start of hazing, but as of this morning, we are back up to at least 16 SSL present at the dam. I could also have been that the dredging barge and survey boat activity in the spill basin all the past couple of weeks contributed to convince a few SSL to leave the project for awhile. We have documented approximately 40 different SSL’s visiting the dam so far and 2 CSL. At least 24 of the SSL are confirmed as seen in past years, and one 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.

PREDATION DATA

Unexpanded numbers for fish observed taken in the Bonneville Dam tailrace for 2012 (through February 22) are:

<u>Prey</u>	<u>California Sea Lions</u>	<u>Steller Sea Lions</u>	<u>Total</u>
Chinook	2	4	6
Steelhead	8	75	83
Sturgeon	0	1128	1128
Lamprey	0	1	1
Shad	2	21	23
Smolt	0	0	0
Other	0	0	0
Unknown	2	134	136

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 (1,219 steelhead and 8 Chinook) from January 1 through March 7, similar to the last couple of years. However, Chinook began to show up in small numbers each of the past three days. Total salmonid catch through March 7 (81 expanded by interpolating for weekends) is much less than any of the last six years (2011 – 152, 2010 – 223, 2009 – 143, 2008 – 190, 2007 - 264, 2006 - 164), primarily by Steller sea lions.

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 deployed their traps on February 6th and captured 6 SSL February 15. Two were already branded and released, while the other 4 were branded (O18-O21), GPS transmitters attached, and released. Three more SSL were trapped on February 28th. One was already branded and released while the other two were branded (O22 and O23), GPS transmitters attached, and released. There were no animals trapped last week.

The states applied to NOAA for a lethal removal permit targeting Bonneville Dam CSL's last year. NOAA re-convened the Pinniped-Fishery Interaction Task Force in October and has been

reviewing all the information through the winter and is expected to make a decision to grant or deny the permit early this month (March).

OTHER ITEMS OF INTEREST

We observed SSL predation on late fall salmon species and sturgeon (Figure 5) beginning on October 3rd last year. The observation schedule was less rigorous than we currently have in place for the January through May season, however, it should be sufficient to give us a good estimate of predation during the late fall/winter time frame. We have yet to proof that data, but should be able to summarize the results by next weeks' report.

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

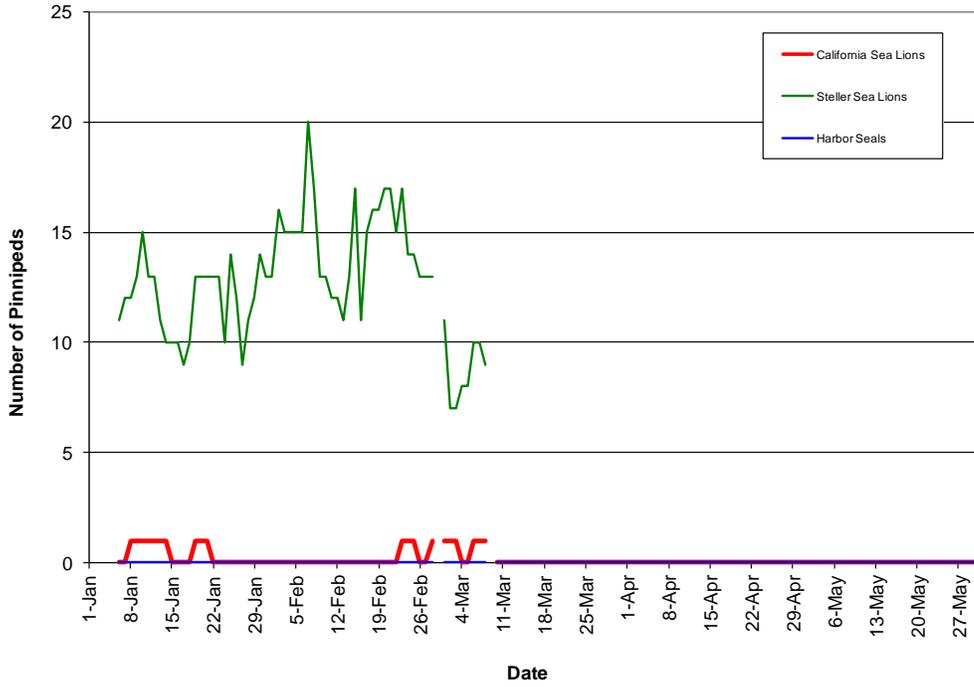


Figure 2. Average daily presence of pinnipeds, by species, to date (March 1) for each year at Bonneville Dam.

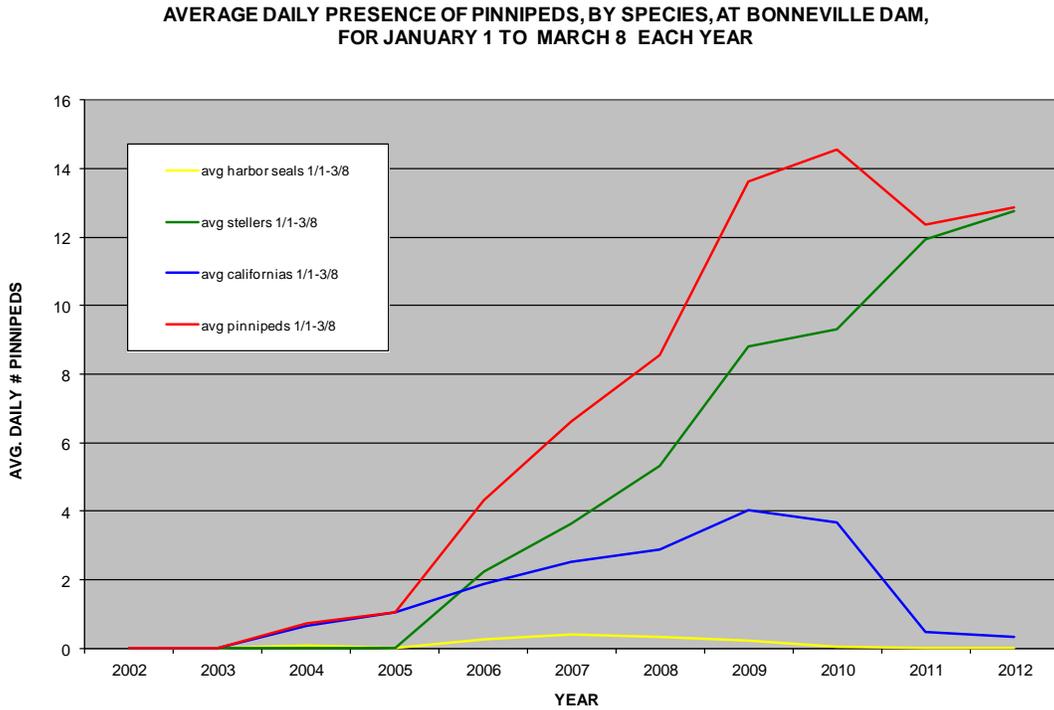


Figure 3. Distribution of prey taken by Pinnipeds by location at Bonneville Dam, through February 22, 2012.

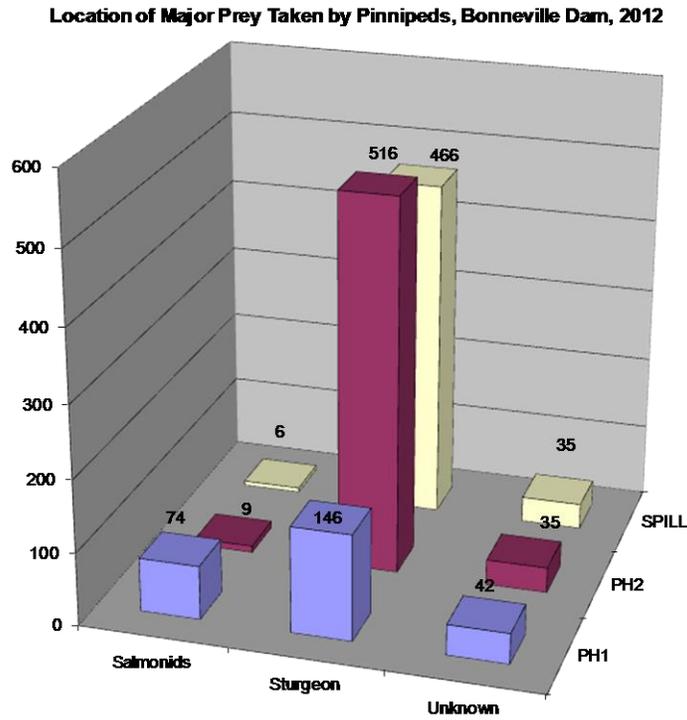


Figure 4. Daily cumulative sturgeon catch (interpolated for weekends) at Bonneville Dam, 2006-2012.

