

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

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This is the first 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, 5 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/sea_lion_hazing2012.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 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 one observed on 11 separate days (likely representing at least two different CSL). 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). We have documented approximately 35 different SSL’s visiting the dam so far and 2 CSL. At least 23 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:

<i>Prey</i>	<i>California Sea Lions</i>	<i>Steller Sea Lions</i>	<i>Total</i>
Chinook	0	1	1
Steelhead	1	67	68
Sturgeon	0	966	966
Lamprey	0	1	1
Shad	1	18	19
Smolt	0	0	0
Other	0	0	0
Unknown	1	111	112

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 (912 steelhead and 1 Chinook) from January 1 through February 29, a bit lower than the last couple of years. Total salmonid catch through February 22 (81 expanded by interpolating for weekends) is fewer than the past couple of years (2011 – 106, 2010 – 134, 2009 – 81, 2008 - 121), 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 will begin hazing from boats early next week.

The states deployed their traps on February 6th and captured 6 SSL. 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.

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 enter and proof that data, but will present it as soon as it becomes available.

One CSL, B325 (Figure 6), has been observed often in the pool above Bonneville Dam all summer, fall, and winter since traversing the navigation lock April 15 of last year. He has been seen in the forebay of Bonneville Dam, the locks area of Cascade Locks, mouth of the Wind River, a marina and docks at The Dalles, and frequently below The Dalles Dam itself. This is the longest known time any CSL has spent above Bonneville Dam without either passing downstream on his own or being trapped and released downstream by the states. Reported sightings include many predation events, although species of prey was not often given.

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

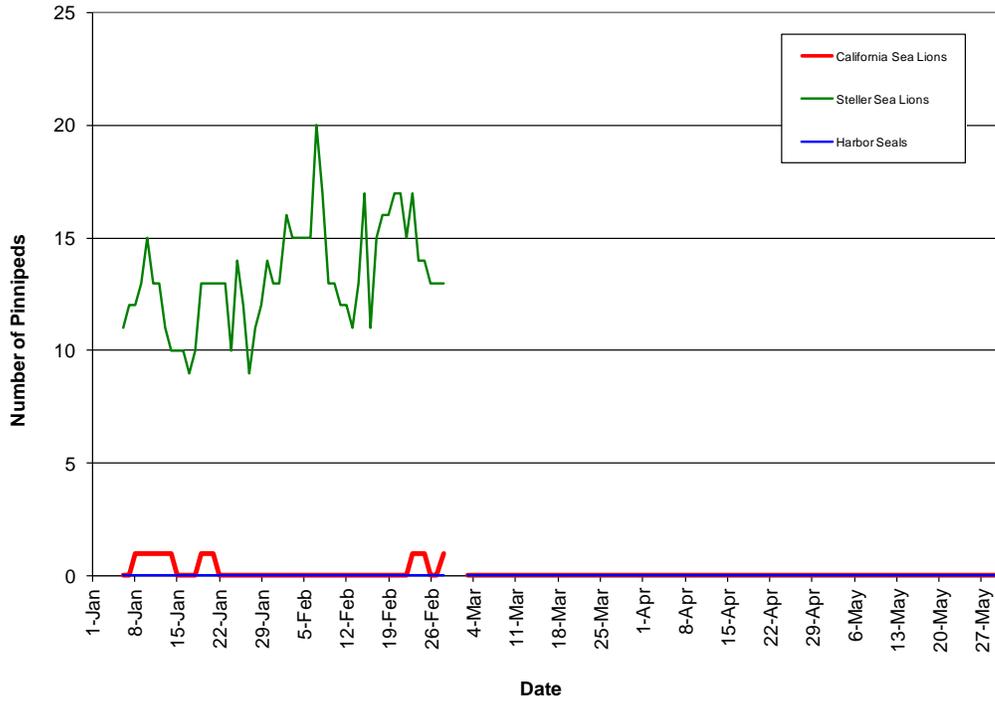


Figure 2. Average daily presence of pinnipeds, by species, to date (March 1) for each year at Bonneville Dam.

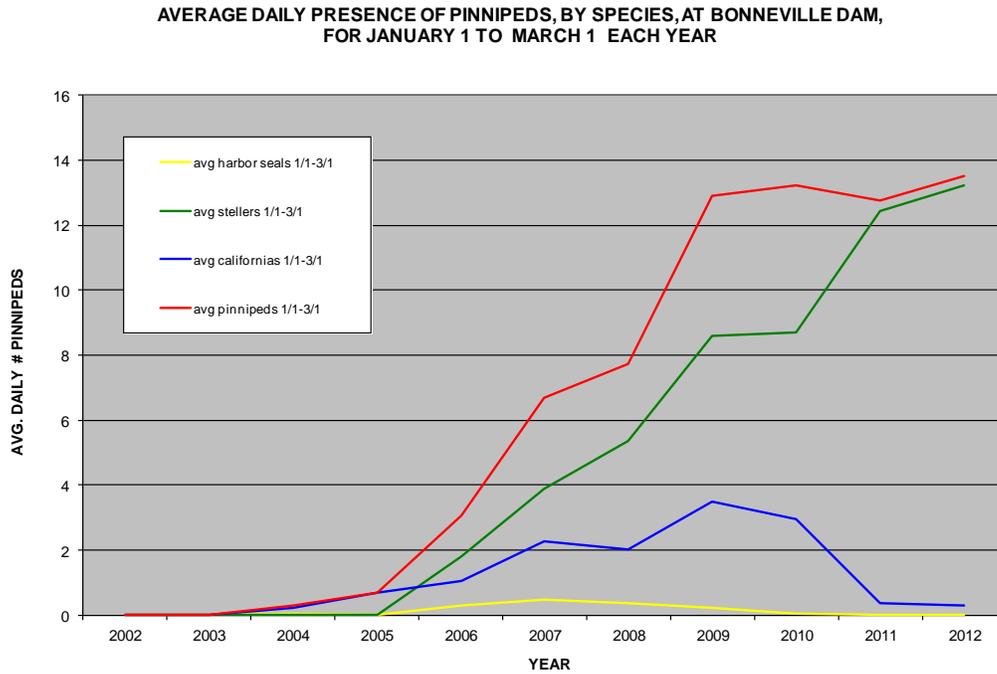


Figure 3. Distribution of prey taken by Pinnipeds by location at Bonneville Dam, through February 22, 2012.

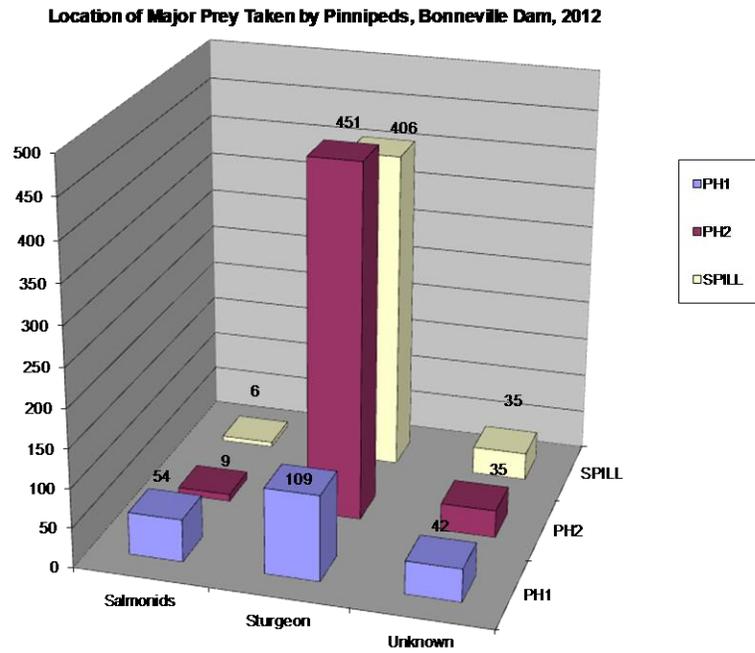


Figure 4. Daily cumulative sturgeon catch (interpolated for weekends) at Bonneville Dam, 2006-2012.

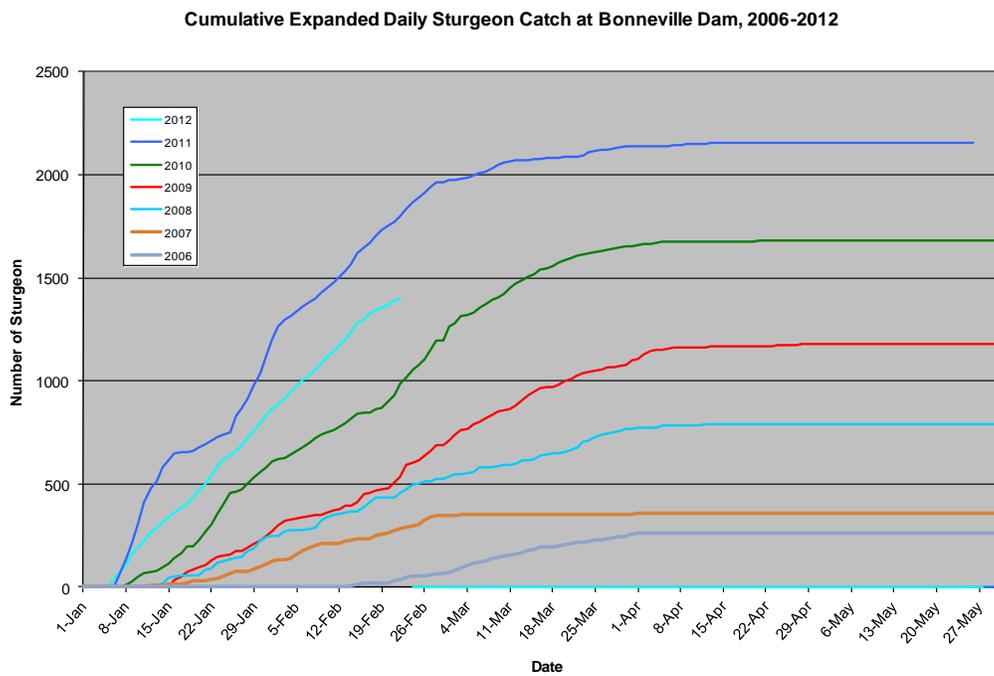


Figure 5. Sturgeon predation at Bonneville Dam in 2012.



Figure 6. B365 resting on trash log booms in forebay of Powerhouse 1 upstream of Bonneville Dam in 2011.

