

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

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This is the twelfth weekly status report for 2013 and summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 1 through April 24, 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

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 31 so far, nine 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 29 (Figure 1). We have documented approximately 64 different SSL’s visiting the dam so far (including 29 with brands). All but 17 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 24) are:

<i>Prey</i>	<i>California Sea Lions</i>	<i>Steller Sea Lions</i>	<i>Total</i>
Chinook	109	318	427
Steelhead	4	80	84
Sturgeon	0	312	312
Lamprey	1	12	13
Shad	1	72	73
Smolt	3	1	4
Other	75	8	83
Unknown	13	101	114

Spring Chinook numbers passing Bonneville Dam have finally started to rise (7,858 Chinook and 2,496 steelhead from January 1 through April 24), though still behind all but two of the past 11 years (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 24 (707 expanded by interpolating for weekends) is the lowest since 2002 (Figure 5). Salmonids have been caught almost equally between powerhouse one and the spillway, while the most have been caught at powerhouse two, which is a switch from the previous weeks (Figure 3). Most abundance and predation has switched to the powerhouse two tailrace with the arrival of the spring Chinook. Sturgeon catch (481 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. SSL continue to consume the most prey this year, including salmonids (Figure 7).

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>).

OTHER ITEMS OF INTEREST

Two night observation were conducted this past week. Night-time activity seems to have dropped off with the increase in Chinook passage. Perhaps they are able to catch enough during the daylight hours and do not need to conduct additional hunting at night. Also, we have conducted some observations at the mouth of Tanner Creek (16 hours over 8 separate days) and observed at SSL take1 sturgeon, 3 Chinook, and 1 unknown while CSL took 1 lamprey, 1 steelhead, and 4 Chinook.

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

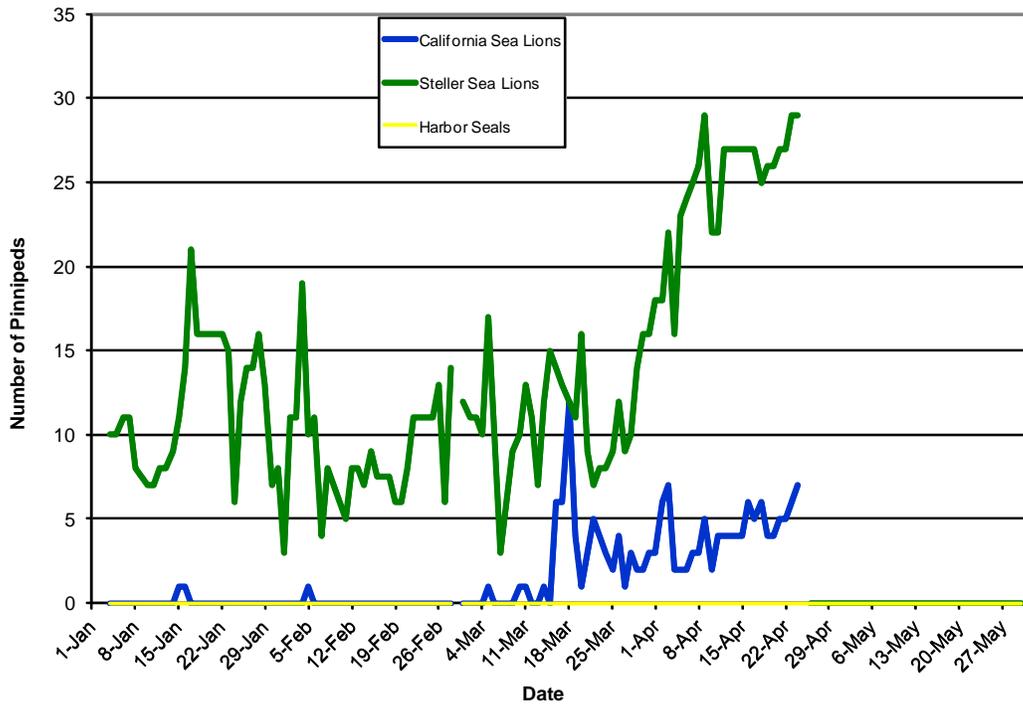


Figure 2. Average daily presence of pinnipeds, by species, to date (April 24) for each year at Bonneville Dam.

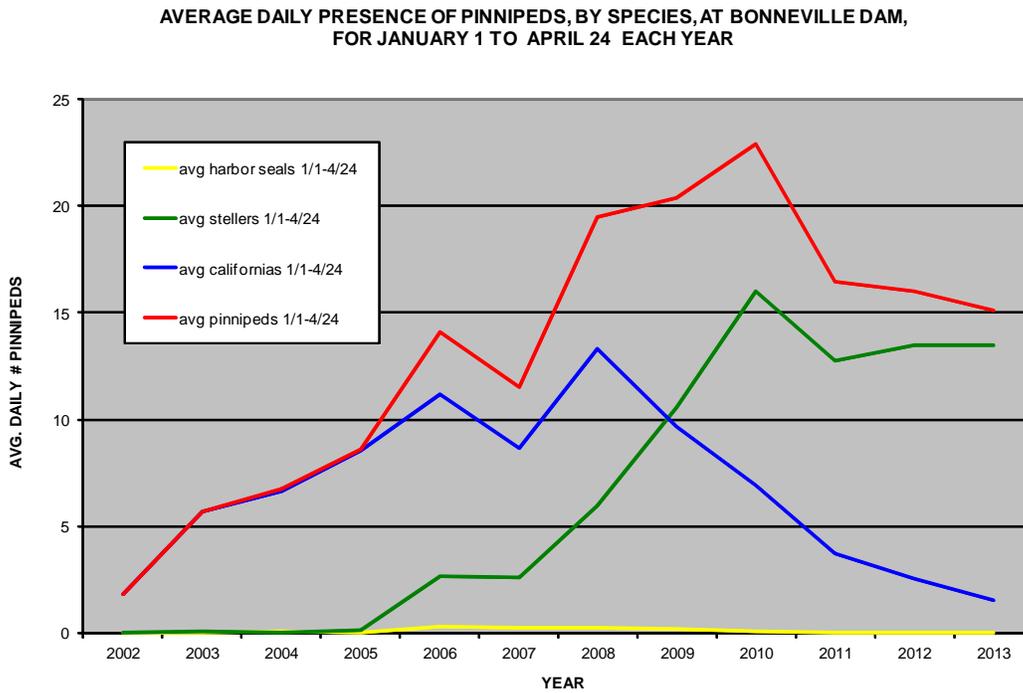


Figure 3. Distribution of prey taken by Pinnipeds by location at Bonneville Dam, through April 24, 2013.

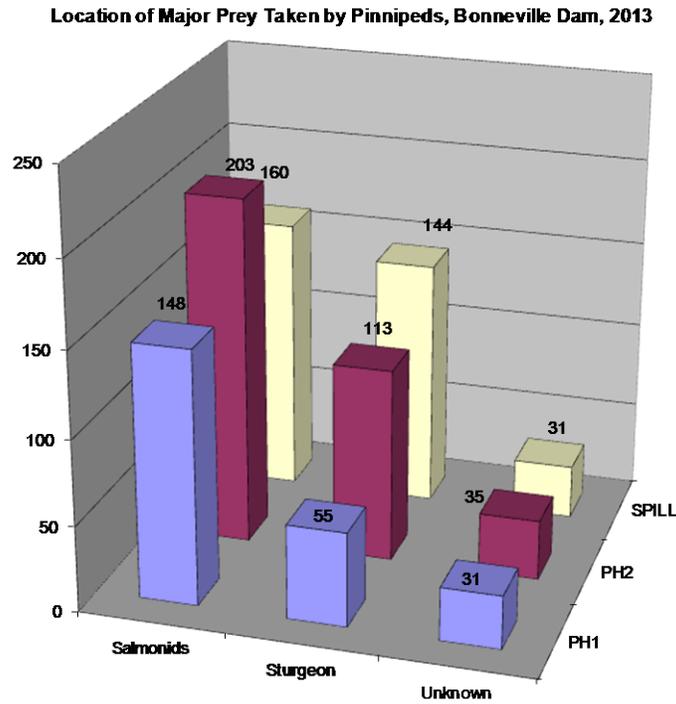


Figure 4. Daily cumulative sturgeon catch (interpolated for weekends) at Bonneville Dam, 2006-2013.

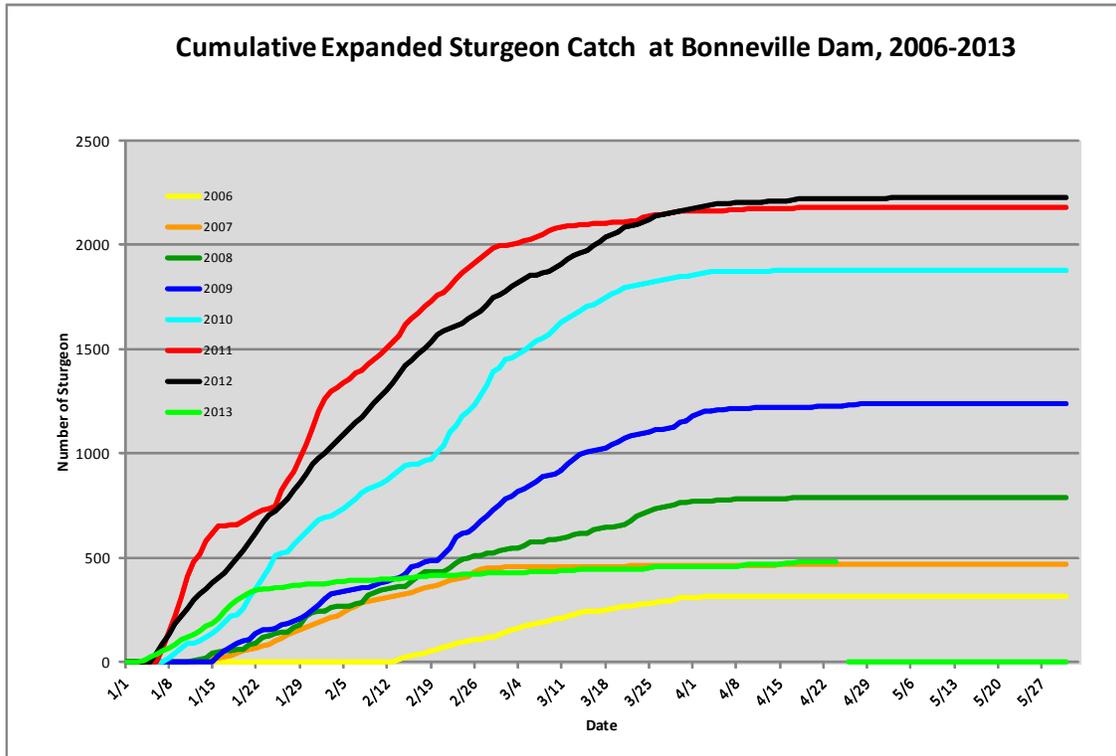


Figure 5. Daily cumulative salmonid catch (interpolated for weekends) at Bonneville Dam, through April 24 for 2002-2013.

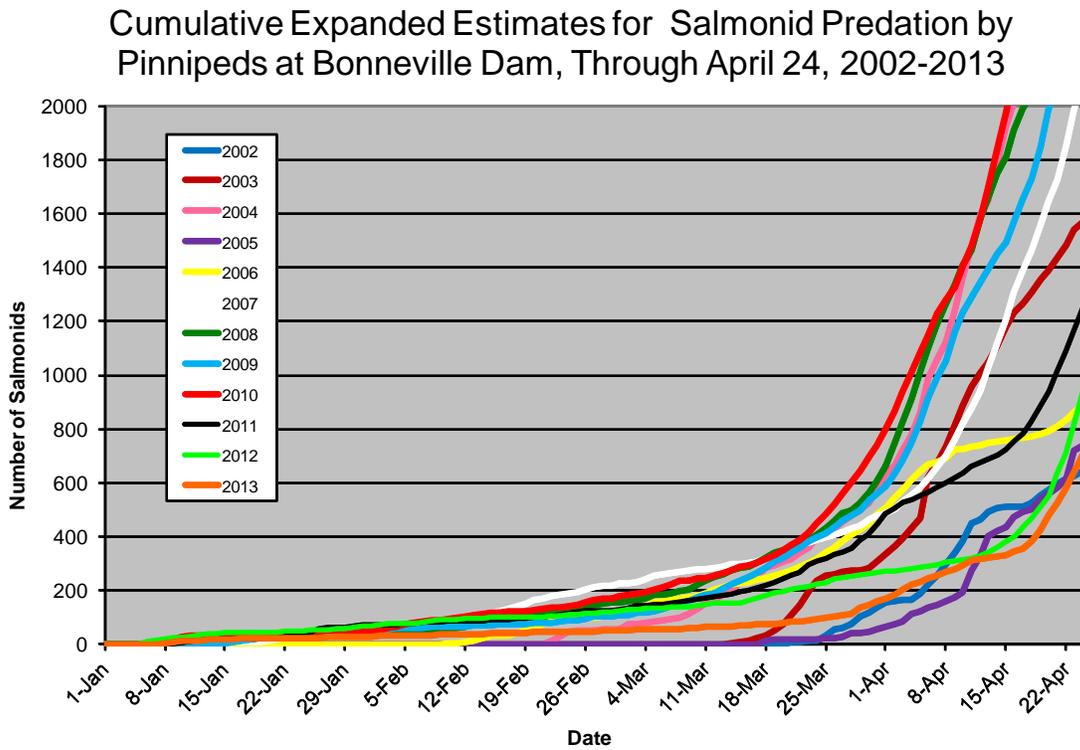


Figure 6. Cumulative salmonid passage at Bonneville Dam for 2013 and the 5 and 10 year averages to date.

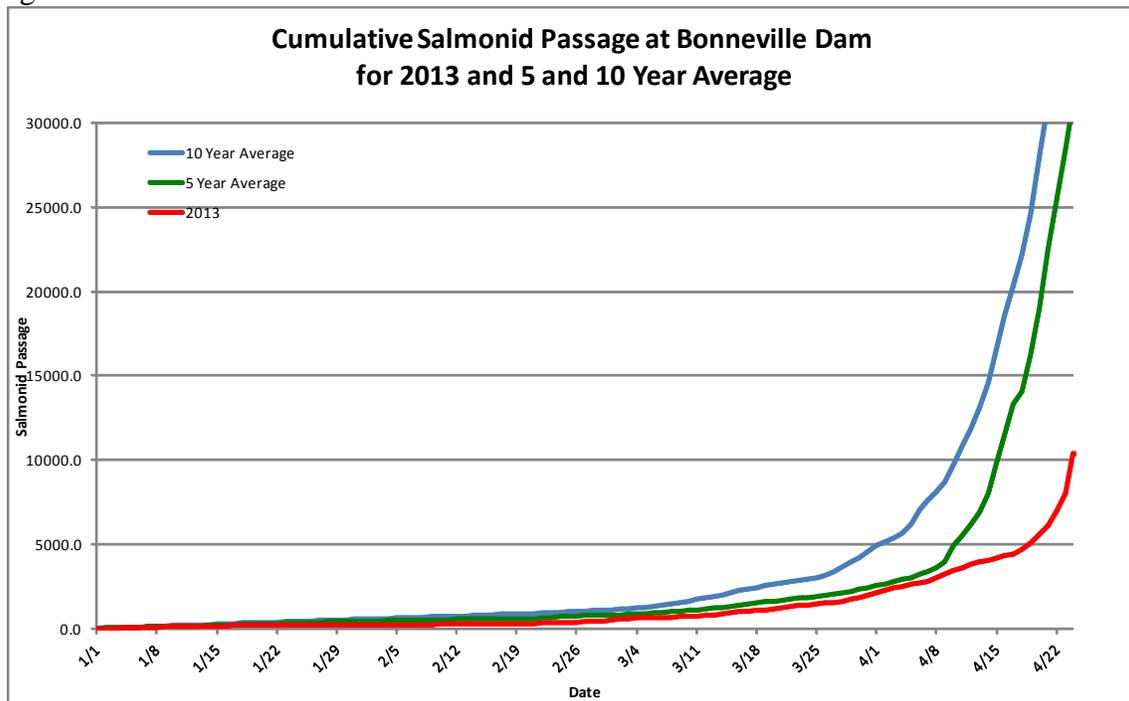


Figure 7. Prey distribution by Pinniped species at Bonneville Dam, through April 24, 2013.

