

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

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This is the seventh weekly status report for 2013 and summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 1 through March 20, 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 lions (*Zalophus californianus* – CSL) finally showed up in numbers on March 18 with at least 12 being seen at one time. We were only able to identify three as repeat individuals through video review as they were primarily small, young, and moving very quickly (Figure 1). Only four CSL were seen on the 19th, and one on the 20th. Steller sea lions (*Eumetopias jubatus* - SSL) are slightly less abundant than the past two years (figures 1 and 2). The maximum number of SSL seen any day so far this year was 21 and for CSL it is now 12 (Figure 1). We have documented approximately 37 different SSL’s visiting the dam so far (including 23 with brands). All but three of the SSL are confirmed as seen in past years, although there may be some new individuals we have not adequately documented yet.

PREDATION DATA

Unexpanded numbers for fish observed taken in the Bonneville Dam tailrace for 2013 (through March 20) are:

<i>Prey</i>	<i>California Sea Lions</i>	<i>Steller Sea Lions</i>	<i>Total</i>
Chinook	0	17	17
Steelhead	1	36	37
Sturgeon	0	277	277
Lamprey	0	8	8
Shad	0	72	72
Smolt	0	0	0
Other	0	0	0
Unknown	0	68	68

Our first predation by CSL for the year was observed March 18. It is likely that most 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 the spillway tailrace, followed by the powerhouse 2 tailrace, while relatively few are caught at powerhouse 1 (Figure 3). Sturgeon catch (446 expanded for weekends only) is the lowest rate since 2006 at this time of year (Figure 4), most taken being in the 2 to 4 foot range. Few fish are passing the count stations (1,053 steelhead and 100 Chinook) from January 1 through March 20, lower than the last three years and less than half the 10 year average (Figure 6). Total salmonid catch through March 20 (81 expanded by interpolating for weekends) is fewer than any previous year (Figure 5) excluding the earliest years when sea lions were just now arriving.

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. No trapping has been conducted at Bonneville to date.

OTHER ITEMS OF INTEREST

WDFW and CRITFC have been sharing their observations of Pinnipeds seen at Phoca Rock with us. A tandem boat survey by CRITFC on March 19 from Bonneville Dam to the East Mooring Basin in Astoria resulted in 62 SSL being observed, 198 CSL, and at least 30 harbor seals (Figure 7). These are raw counts and not expanded but points to the fact that many pinnipeds are far up the Columbia River following the smelt run this year.

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

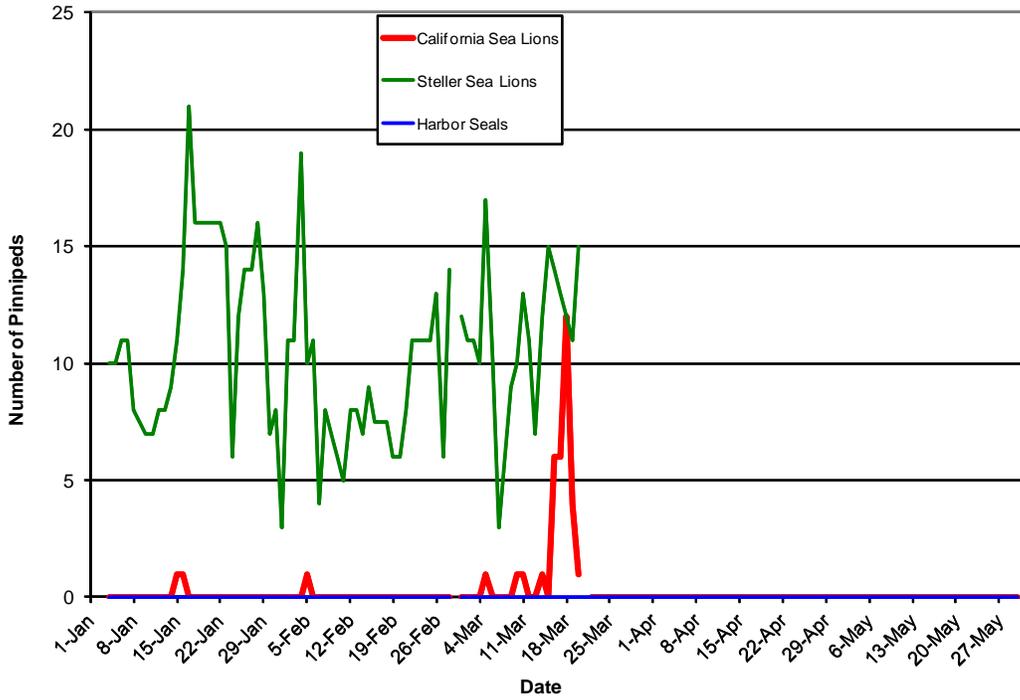


Figure 2. Average daily presence of pinnipeds, by species, to date (March 20) for each year at Bonneville Dam.

AVERAGE DAILY PRESENCE OF PINNIPEDS, BY SPECIES, AT BONNEVILLE DAM, FOR JANUARY 1 TO MARCH 20 EACH YEAR

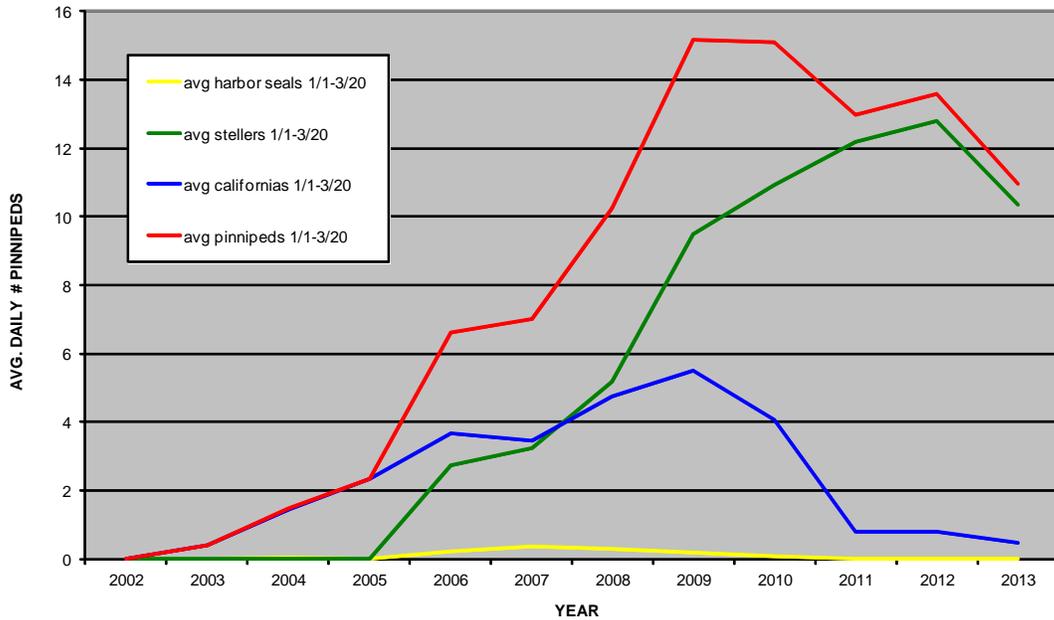


Figure 3. Distribution of prey taken by Pinnipeds by location at Bonneville Dam, through March 20, 2013.

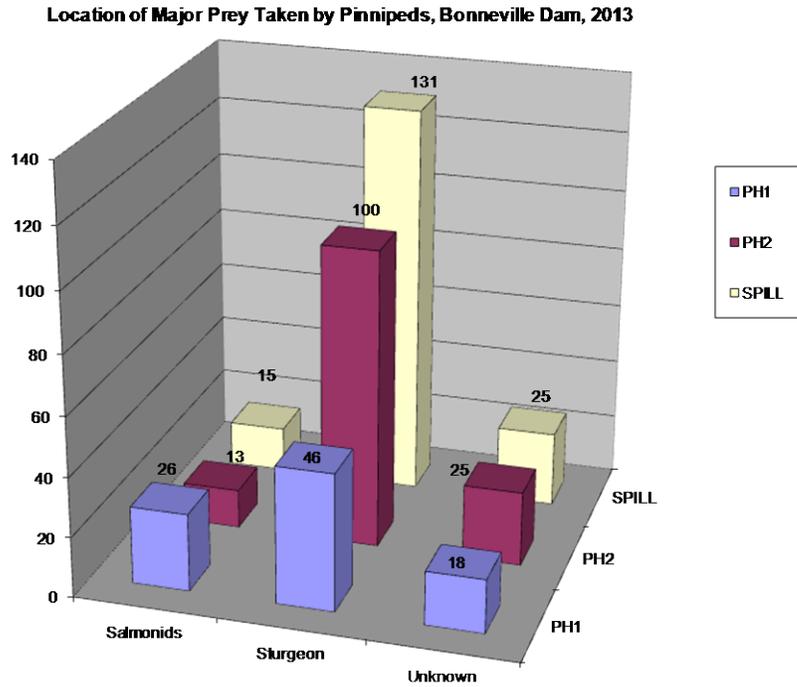


Figure 4. Daily cumulative sturgeon catch (interpolated for weekends) at Bonneville Dam, 2006-2013.

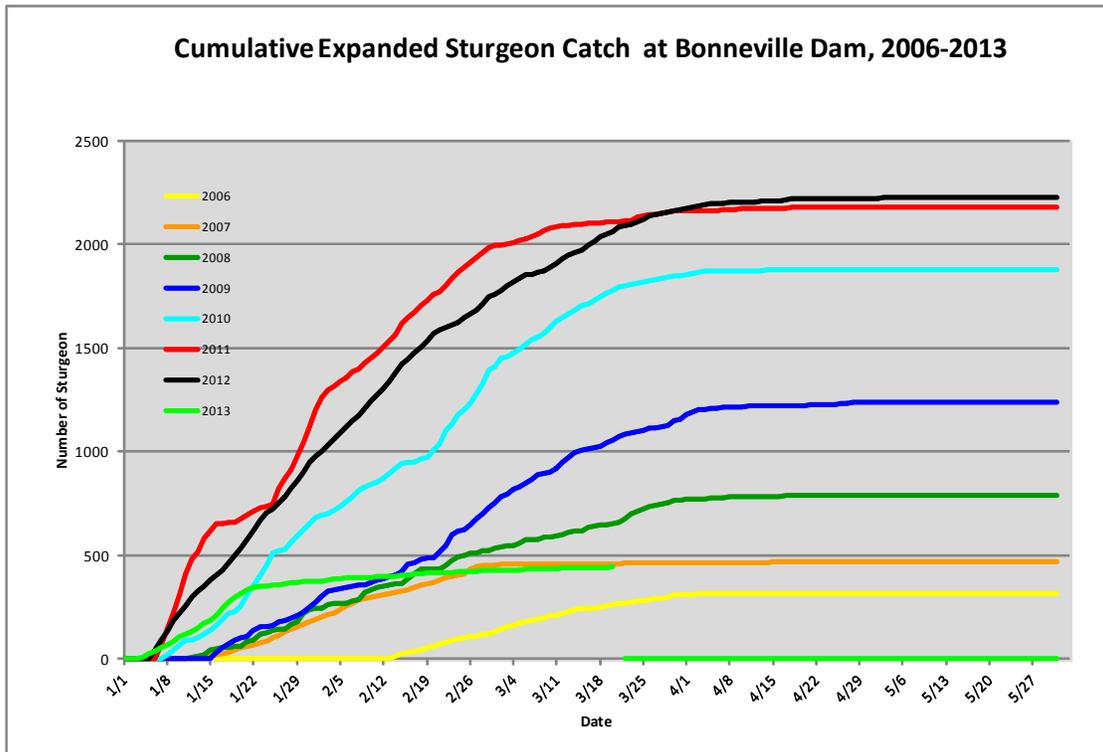


Figure 5. Daily cumulative salmonid catch (interpolated for weekends) at Bonneville Dam, through March 20 for 2002-2013.

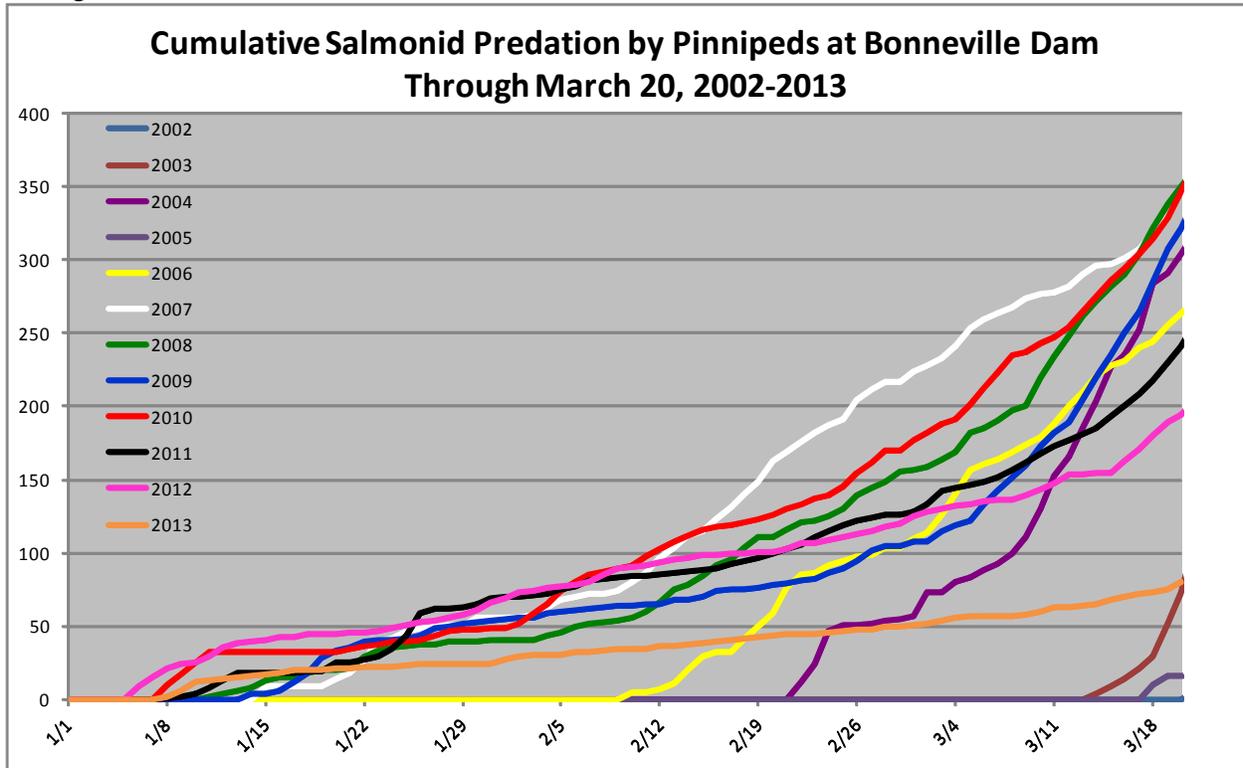


Figure 6. Cumulative salmonid passage at Bonneville Dam for 2013 and the 10 year average to date.

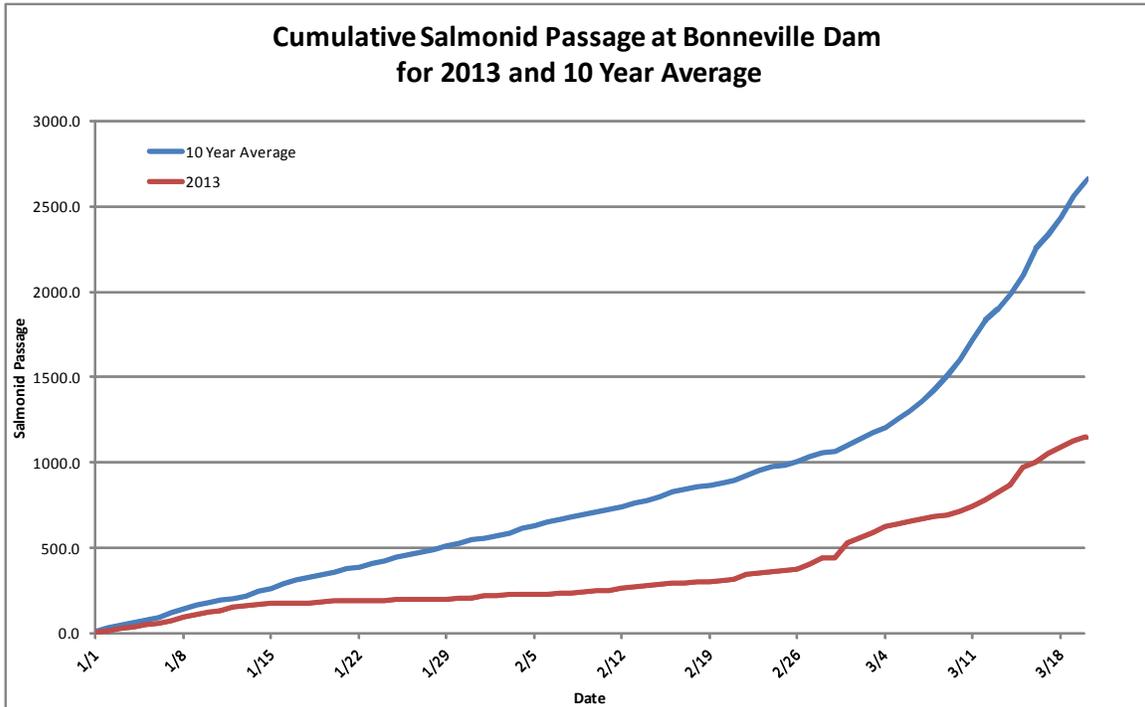


Figure 7. Sightings of Pinnipeds by CRITFC tandem boat survey March 19 (courtesy Doug Hatch).

