

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

Robert Stansell, Bjorn van der Leeuw, and Karrie Gibbons - (541) 374-8801

Fisheries Field Unit
U.S. Army Corps of Engineers
Bonneville Lock and Dam
Cascade Locks, OR 97014

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This is the fourteenth weekly status report for 2013 and summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 1 through May 8, 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 are now about the same as last year (Figure 1), due to a large number of new individuals showing up this past week. The maximum number of CSL seen on any one day so far this year is 21. We’ve identified about 60 individual CSL so far, at least 13 being repeat individuals from previous years. Steller sea lions (*Eumetopias jubatus* - SSL) numbers are slightly higher than past two years at this point (figures 1 and 2) but daily numbers have been dropping lately and they may be on their way out. The maximum number of SSL seen on any one day so far this year was 40 (Figure 1). We have documented about 80 different SSL’s visiting the dam so far (including 34 with brands) and confirmed that 53 are repeats from 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 May 8) are:

| <i>Prey</i> | <i>California Sea Lions</i> | <i>Steller Sea Lions</i> | <i>Total</i> |
|------------------|-----------------------------|--------------------------|--------------|
| Chinook | 612 | 633 | 1245 |
| Steelhead | 16 | 91 | 107 |
| Sturgeon | 0 | 314 | 314 |
| Lamprey | 6 | 13 | 19 |
| Shad | 2 | 73 | 75 |
| Smolt | 16 | 13 | 29 |
| Other | 76 | 9 | 85 |
| Unknown | 52 | 128 | 180 |

Spring Chinook numbers passing Bonneville Dam have reached 73,994 Chinook to date and for steelhead, 2,785. This is higher than four of the past 11 years count at this point (Figure 6). Predation by CSL on salmonids was strong this past week and is total salmonid predation is now higher than last year at this point and similar to 2005 and 2006 estimates with about three more weeks to go in the typical foraging season. Total salmonid catch through May 8 (1,927 expanded by interpolating for weekends) increased mostly for CSL since last week (Figure 5). CSL consumed more salmonids this past week than SSL and may pass SSL take (Figure 7). Salmonid catch has been predominantly at the spillway, followed by powerhouse two and powerhouse one, a drastic change over the past three weeks (Figure 3). Sturgeon catch (489 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.

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 trapped and branded 3CSL this week. 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

There have been 27 days so far in 2013 where a CSL was observed at The Dalles Dam by project staff. That compares to 2012 in which a CSL was observed on 26 days for the entire year. The number of CSL in the Bonneville pool has likely remained the same (3-4) but shows that the CSL are becoming more familiar/comfortable with The Dalles Dam as a convenient place to catch fish. The project actually hazed one CSL away from the west fishway entrance early this month. Most sightings are of just 1 CSL, but there have been 3 times when at least 2 CSL were observed. Bonneville forebay, Stevenson, Drano Lake, and tribal net fisheries have also reported frequent sightings of CSL over the years.

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

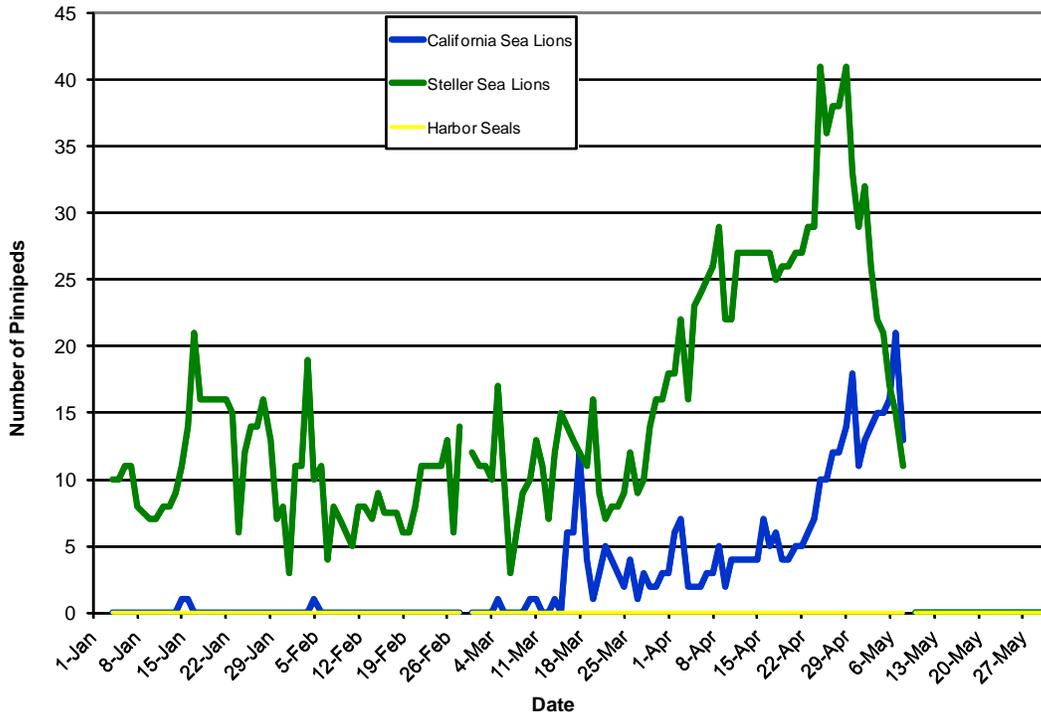


Figure 2. Average daily presence of pinnipeds, by species, to date (May 8) for each year at Bonneville Dam.

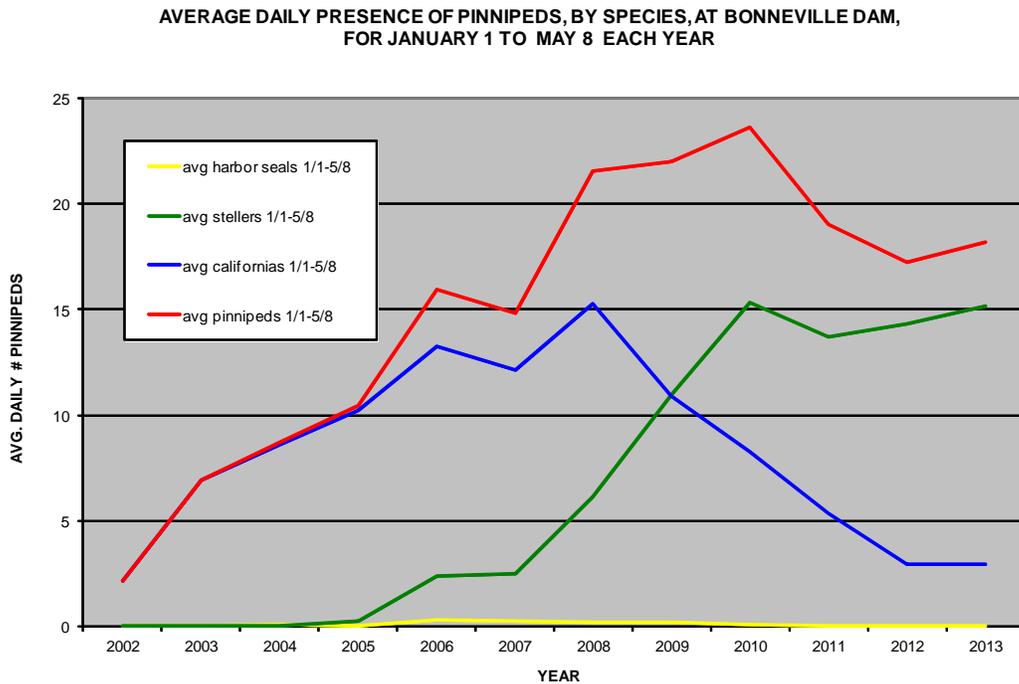


Figure 3. Distribution of prey taken by Pinnipeds by location at Bonneville Dam, through May 8, 2013.

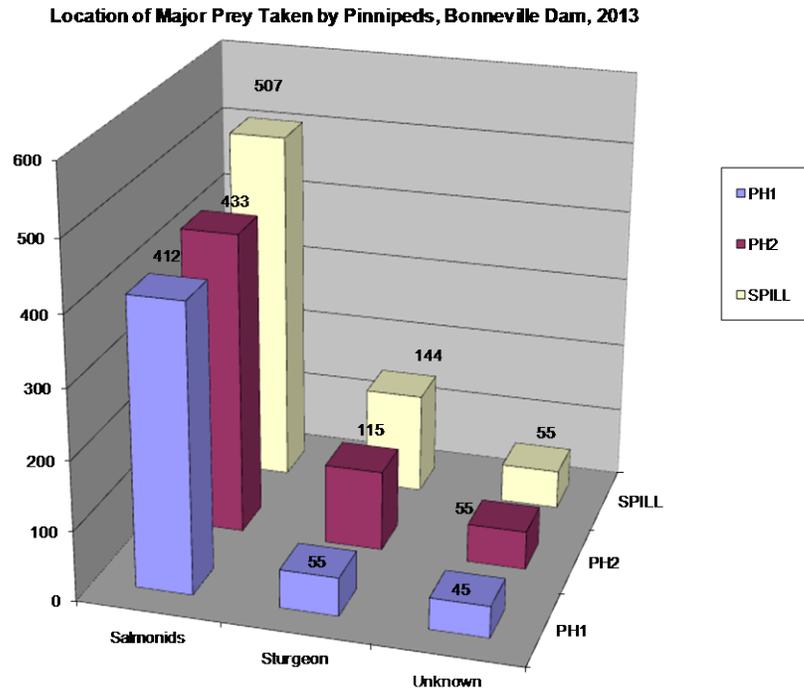


Figure 4. Daily cumulative sturgeon catch (interpolated for weekends) at Bonneville Dam, 2006-2013.

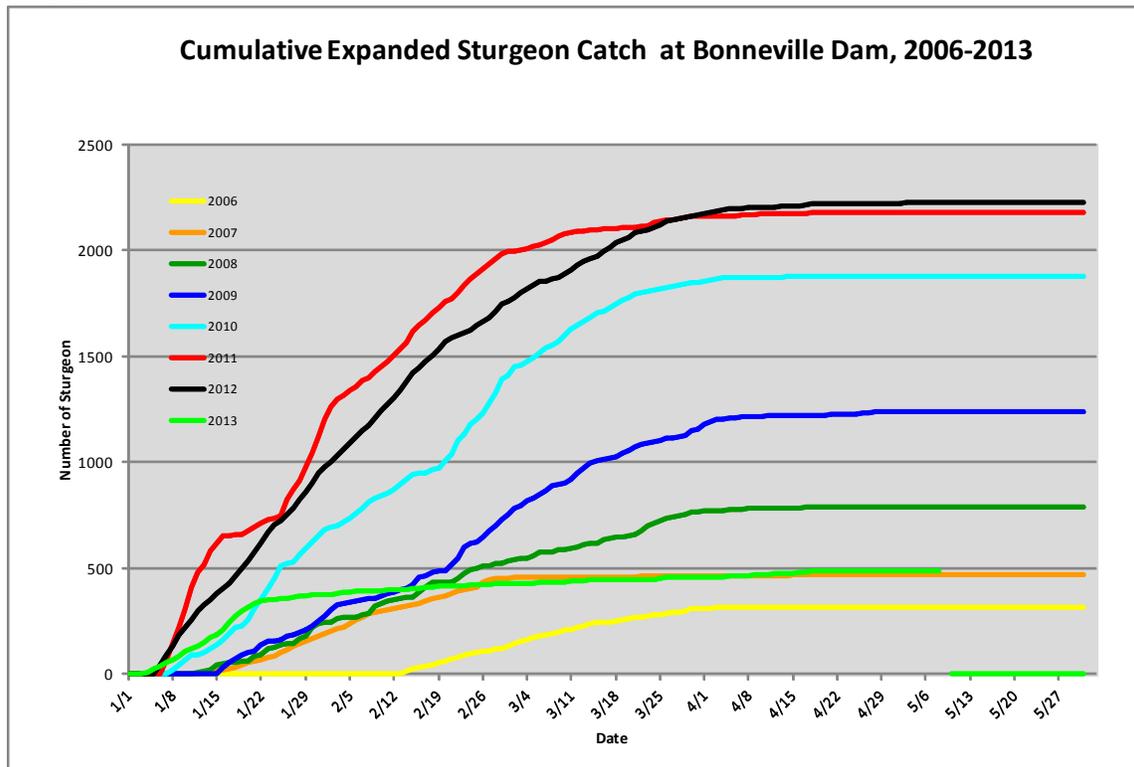


Figure 5. Daily cumulative salmonid catch (interpolated for weekends) at Bonneville Dam, through May 8 for 2002-2013.

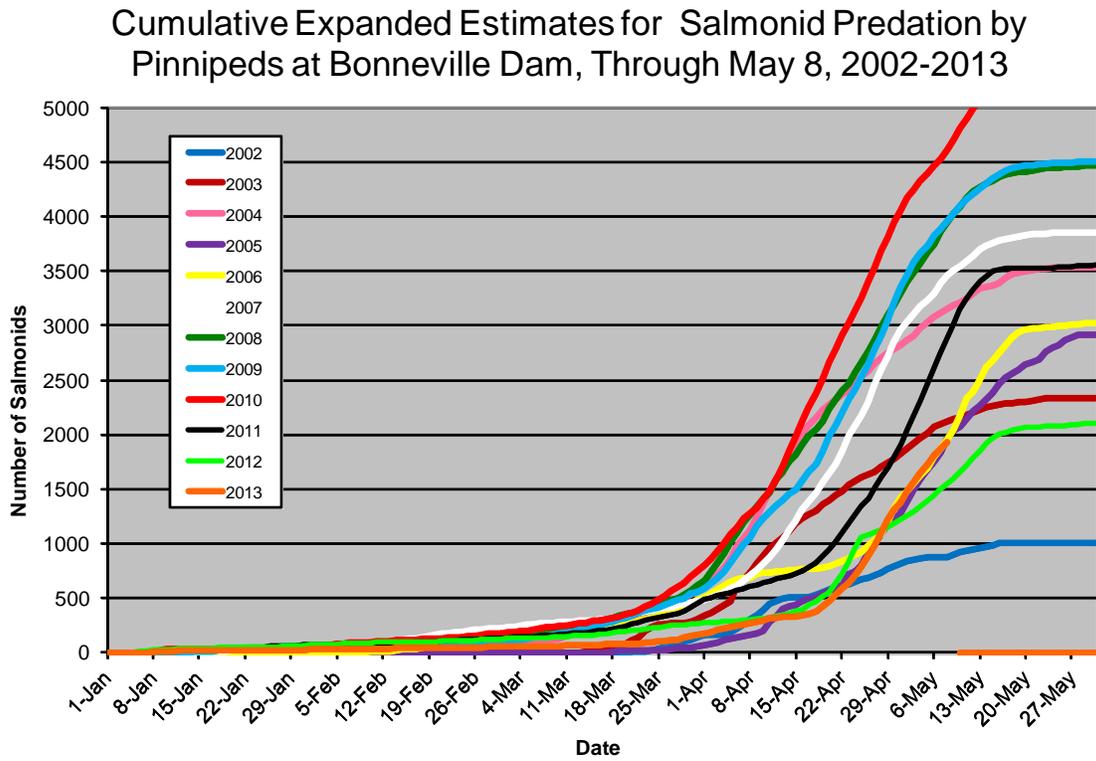


Figure 6. Cumulative salmonid passage at Bonneville Dam for 2013 and the 5 and 10 year averages to date.

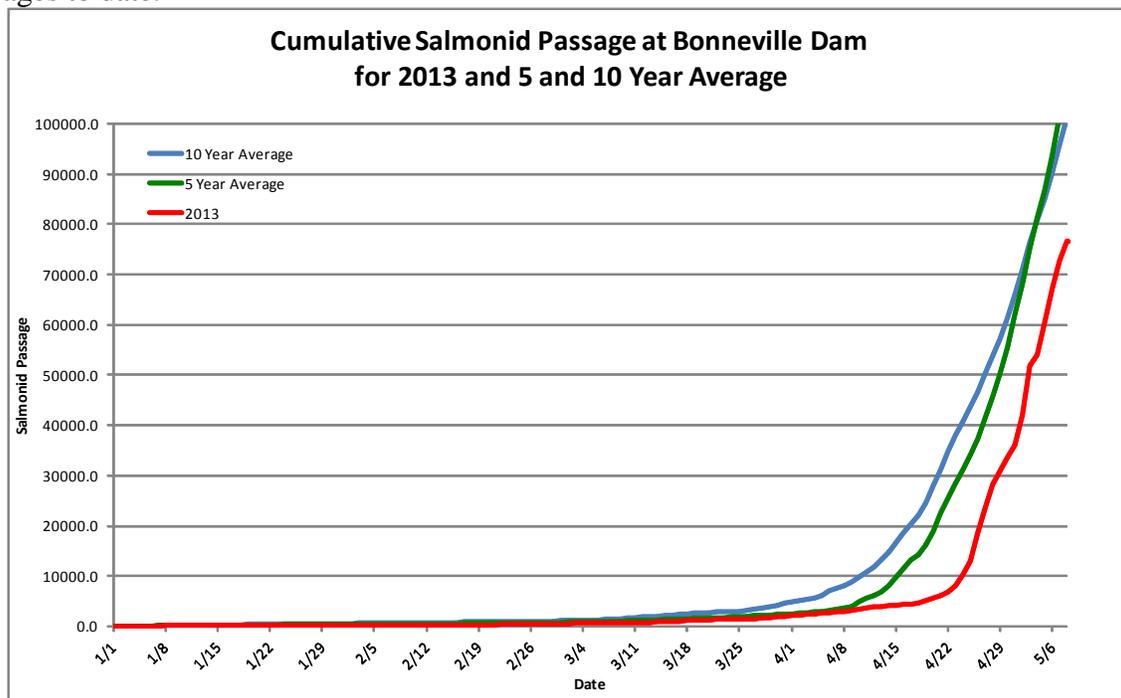


Figure 7. Prey distribution by Pinniped species at Bonneville Dam, through May 8, 2013.

