

Status Report – Pinniped Monitoring Program at Bonneville Lock & Dam, 2015

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This is the fifth biweekly status report of the 2015 field season. This report summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 13 through May 6, 2015. Regular daylight observations began on January 13 and will continue through the end of May. As in past years, observations will be conducted Monday through Friday during daylight hours, but will not be conducted on weekends and federal holidays.

Final predation estimates will be expanded for hours and days not observed and adjusted for “unknown” prey species consumed. These adjustments will be performed at the end of the field season and will be presented in our annual report. This report can be found at: <http://www.nwd-wc.usace.army.mil/tmt/documents/fish>.

All data presented here are preliminary as of the status report date. Predation figures are unexpanded (unless otherwise noted) and pinniped abundance estimates will likely change as the season progresses and data are proofed and analyzed. A final report summarizing the results of the 2015 Pinniped Monitoring Program will be available in the fall of this year.

Preliminary Pinniped Abundance Data

The first California sea lion (CSL) of the 2015 field season was observed on February 9. The maximum number of CSL observed on one day was 62 on April 29. This is a new record for Bonneville. The former single day record was 52 CSL set in 2007. We have documented 129 branded CSL in the tailrace thus far. Of these, 24 were brands seen in previous years, 26 were brands that had not previously been observed at Bonneville, and 79 were CSL that were trapped and branded at Bonneville this field season.

Steller sea lions (SSL) have been present since observations began on January 13. The maximum number of SSL observed on one day was 69 on April 22. This is a new record for Bonneville. The former single day record was 53 SSL set in 2010. We have documented 53 unique individual SSL in the tailrace thus far. Of these, 33 were repeat individuals and 20 were previously unidentified and may be new to Bonneville. Of the 33 repeat SSL, 15 were branded animals.

Pinniped abundance has been variable in 2015. The daily abundance of pinnipeds (species combined) in 2015 versus the 2002-2014 average daily abundance is shown in Figure 1. There was an average of 12

pinnipeds per day in January, 8 in February, 22 in March, and 78 in April. There has been an average of 76 pinnipeds per day thus far in May. The daily average presence of pinnipeds by species (for January 1 to May 6) for all years of monitoring is shown in Figure 2.

The maximum number of pinnipeds present on one day was 116 on April 22. This is a new record for Bonneville. The former single day record was 71 pinnipeds set in 2010.

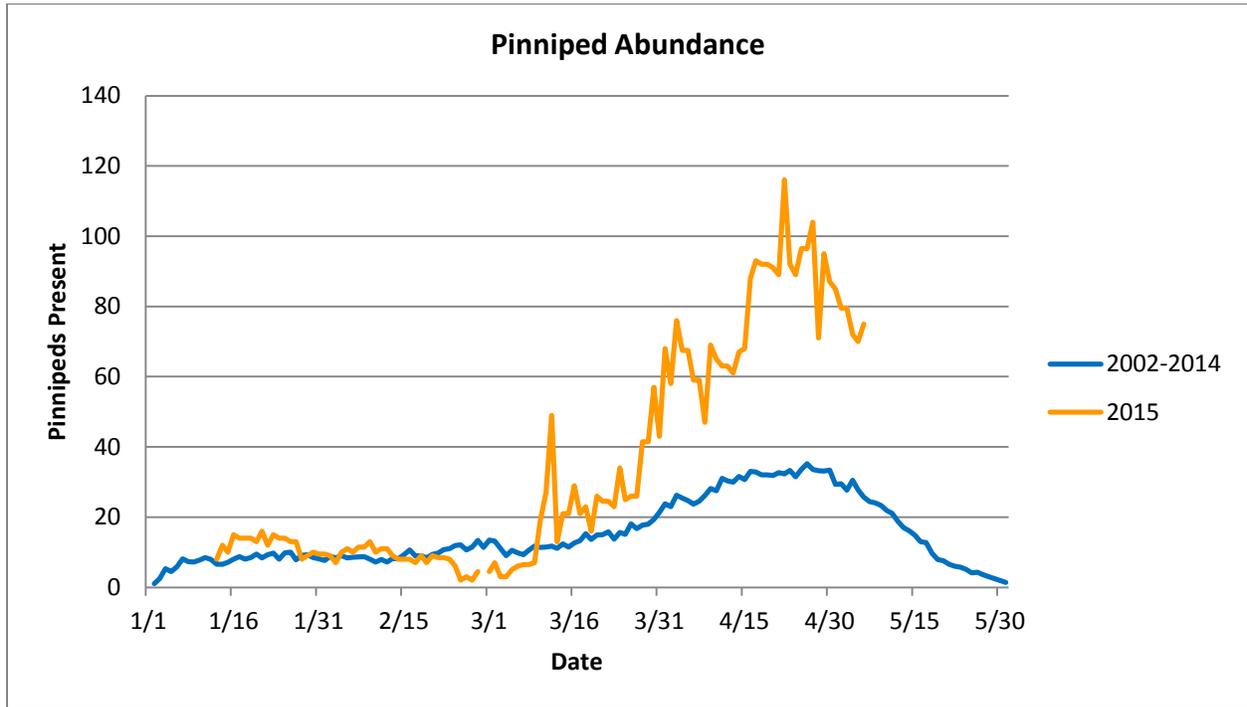


Figure 1. Pinniped abundance (California sea lion and Steller sea lion combined) at Bonneville Dam.

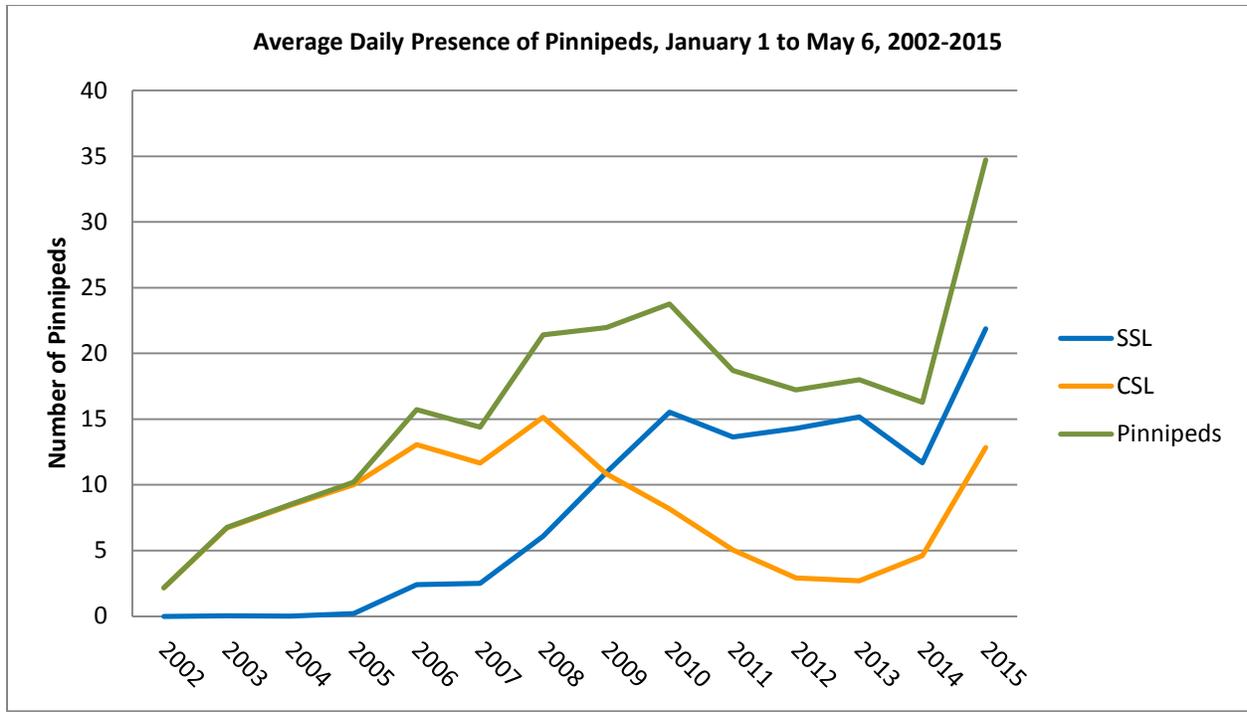


Figure 2. Average daily presence of California sea lions (CSL), Steller sea lions (SSL), and pinniped species combined (Pinnipeds) for January 1 to May 6, 2002-2015.

Predation Data

Unexpanded numbers for fish consumed by pinnipeds in the Bonneville Dam tailrace for 2015 through May 6 are listed in Table 1.

Table 1. Observed fish catches by fish species and pinniped species from January 13 to May 6, 2015 (81 days of observation).

Prey	California Sea Lion	Steller Sea Lion	Total
Chinook Salmon	2968	1140	4108
Steelhead	20	90	110
White Sturgeon	2	21	23
Pacific Lamprey	16	6	22
American Shad	9	4	13
Other Species	10	8	18
Unknown Species	181	193	374
Total	3206	1462	4669

Adult salmonid (Chinook Salmon and Steelhead combined) predation has been greater than the 2002-2014 cumulative average for this time period (Figure 2). The predation estimate (expanded for weekends only) of 5,878 salmonids is greater than the 2002-2014 cumulative average of 2,766

salmonids consumed through May 6. We have observed 2,988 salmonid catches by CSL and 1,230 salmonid catches by SSL.

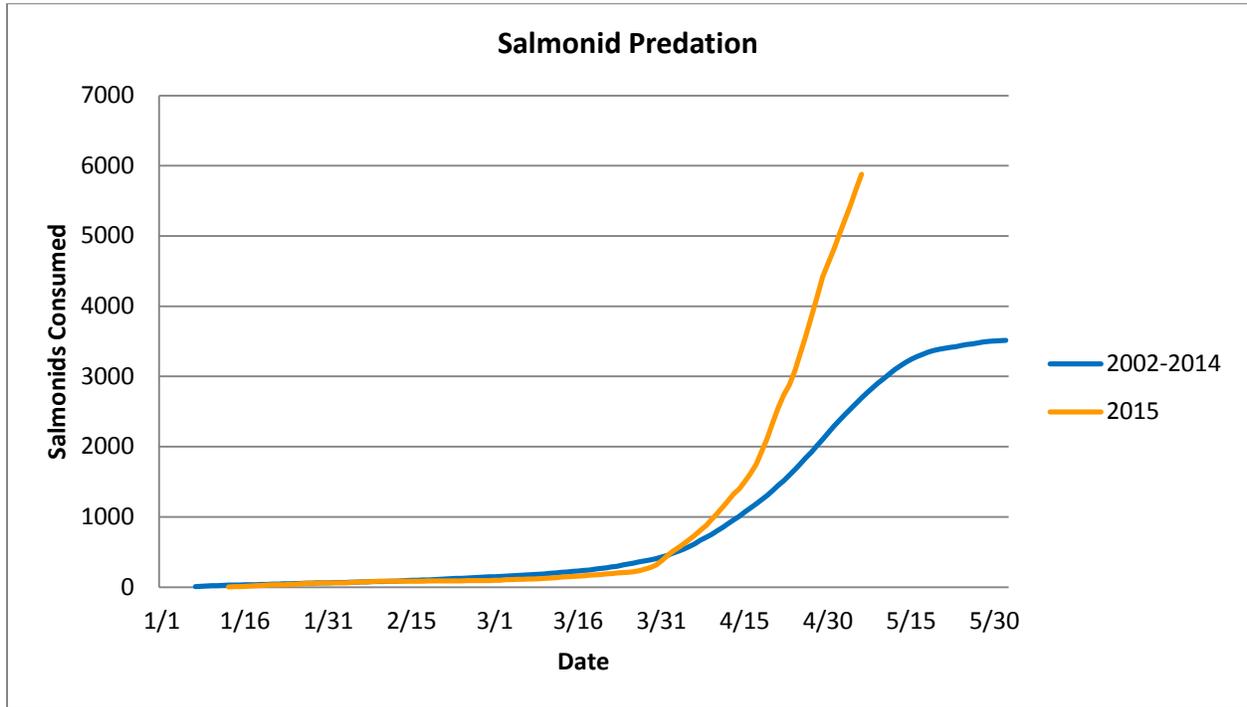


Figure 3. Adult salmonid predation by pinnipeds at Bonneville Dam.

Estimated White Sturgeon predation has been low for the 2015 field season (Figure 3). The predation estimate (expanded for weekends only) of 34 sturgeon is below the 2006-2014 cumulative average of 1,284 sturgeon consumed through May 6.

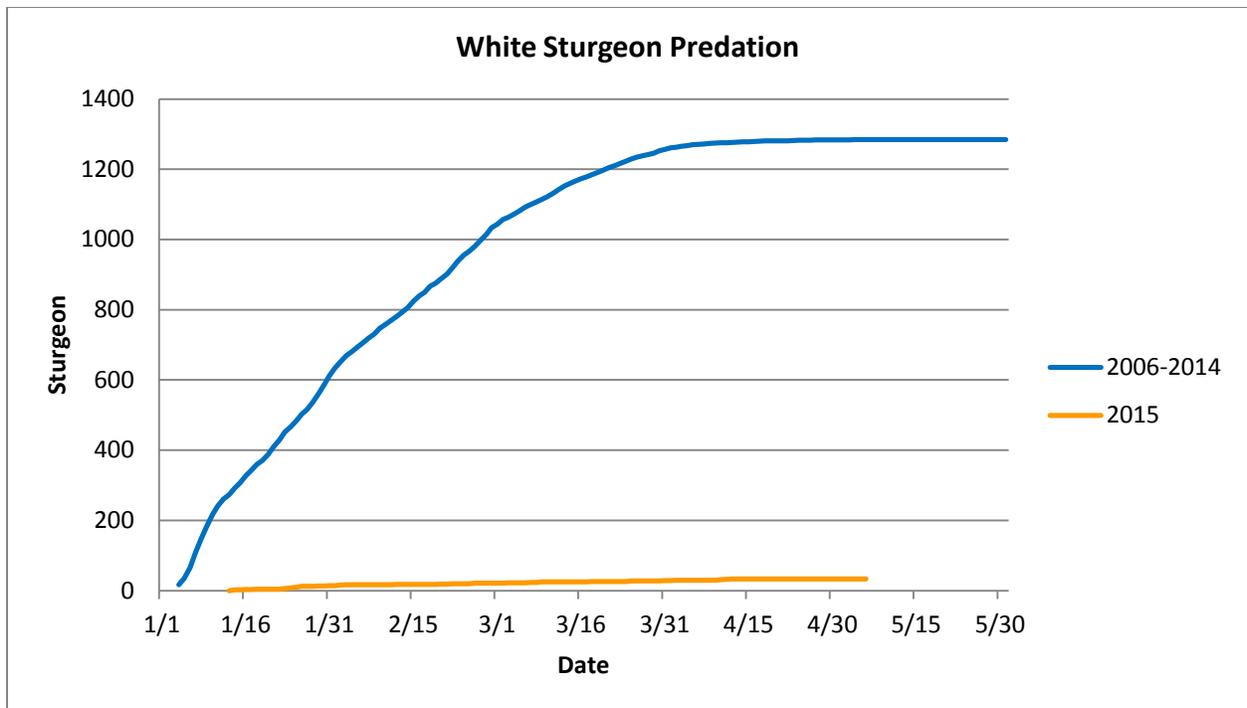


Figure 4. White sturgeon predation by pinnipeds at Bonneville Dam.

Pinniped Deterrents

Sea lion exclusion devices (SLEDs) were installed at all fishway entrances by March 4.

Boat-based harassment by Columbia River Inter-Tribal Fish Commission (CRITFC) began on March 6 and will continue until the end of May.

Dam-based harassment by U.S. Department of Agriculture (USDA) began on March 18 and will be conducted 7 days a week until the end of May.

Pinniped Trapping, Branding & Removals

Pinniped management activities are conducted at Bonneville Dam by Oregon Department of Fish & Wildlife (ODFW) and Washington Department of Fish & Wildlife (WDFW).

During the 2015 field season (through May 6) ODFW and WDFW have euthanized 14 CSL and trapped, branded and released 79 CSL. In addition to the 14 CSL that were euthanized, 2 CSL died accidentally in one incident on a trap during the week of April 27. One SSL died accidentally when it was caught between two traps during the week of May 4.

Pinniped management activities are listed by week below.

Week of May 4 - Trapping and removal operations at the dam remain suspended due to the accidental death of a Steller sea lion on May 4. Additional information on this mortality can be found at: <http://www.dfw.state.or.us/news/2015/may/050515b.asp>. ODFW staff spent the remainder of the week inspecting and modifying the traps to prevent a similar incident in the future.

Week of April 27 - Two California sea lions on the list for removal were trapped and euthanized. Twenty-three California sea lions, not on the list for removal, were trapped, branded and released. A trap malfunction sometime between the night of April 28 and the morning of April 29 resulted in the accidental death of two California sea lions (not on the list for removal). Additional information on these mortalities can be found at: <http://www.dfw.state.or.us/news/2015/may/050115.asp>.

Week of April 20 - Five California sea lions on the list for removal were trapped and euthanized. Twenty-seven California sea lions, not on the list for removal, were trapped, branded and released.

Week of April 13 - One California sea lion on the list for removal was trapped and euthanized. Sixteen California sea lions, not on the list for removal, were trapped, branded and released.

Week of April 6 - Six California sea lions on the list for removal were trapped and euthanized. Thirteen California sea lions, not on the list for removal, were trapped, branded and released.