

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

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April 9, 2015

This is the third 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 April 7, 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 42 on March 12. We have documented 38 branded CSL in the tailrace thus far. Of these, 15 were brands seen in previous years, 10 were brands that had not previously been observed at Bonneville, and 13 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 51 on April 3. We have documented 43 unique individual SSL in the tailrace thus far. Of these, 32 were repeat individuals and 11 were previously unidentified and may be new to Bonneville. Of the 32 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, and 22 in March. There has been an average of 65 pinnipeds per day thus far in April.

Since March 28, the 2015 daily abundance of pinnipeds has been at least double the 2002-2014 daily average. For example, on April 3, there were 76 pinnipeds present in the tailrace. This is almost three times the 2002-2014 daily average of 26 pinnipeds present for April 3.

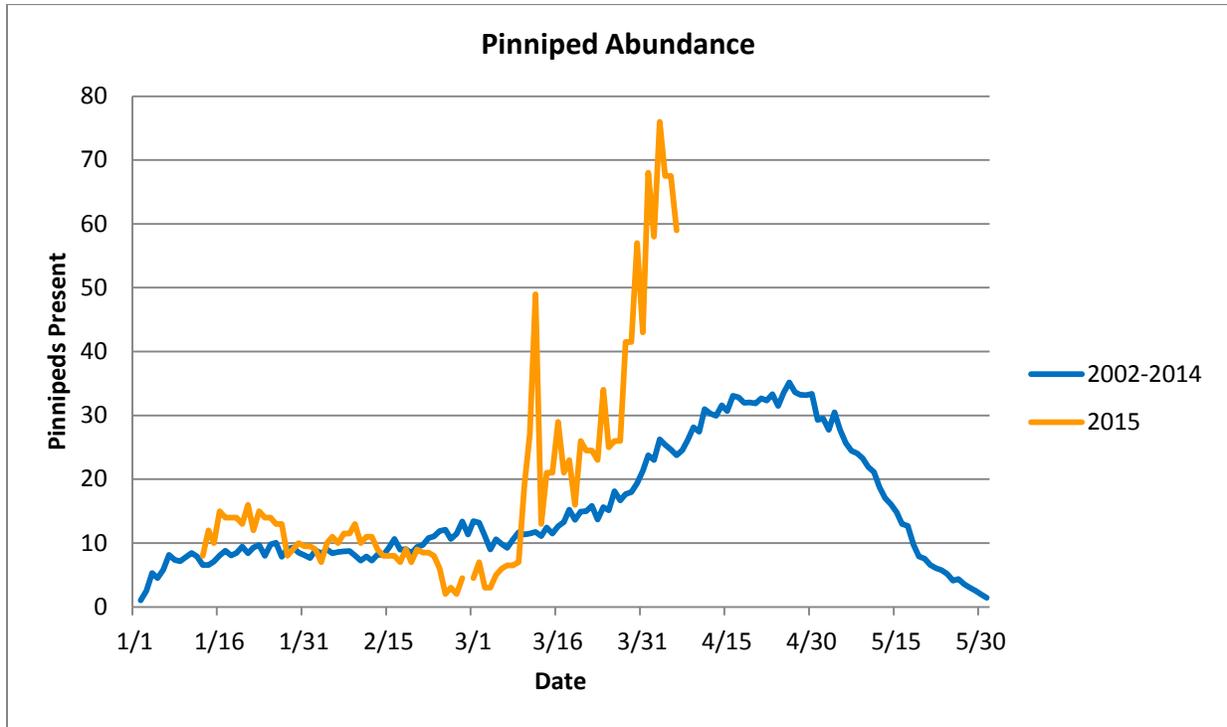


Figure 1. Pinniped abundance (California sea lion and Steller sea lion combined) at Bonneville Dam.

Predation Data

Unexpanded numbers for fish consumed by pinnipeds in the Bonneville Dam tailrace for 2015 through April 7 are listed in Table 1.

Table 1. Observed fish catches by fish species and pinniped species from January 13 to April 7, 2015 (60 days of observation).

| Prey | California Sea Lion | Steller Sea Lion | Total |
|-----------------|---------------------|------------------|------------|
| Chinook Salmon | 259 | 215 | 474 |
| Steelhead | 6 | 81 | 87 |
| White Sturgeon | 1 | 19 | 20 |
| Pacific Lamprey | 2 | 1 | 3 |
| American Shad | 0 | 4 | 4 |
| Other Species | 0 | 4 | 4 |
| Unknown Species | 34 | 70 | 104 |
| Total | 302 | 394 | 696 |

Adult salmonid (Chinook Salmon and Steelhead combined) predation has been near the 2002-2014 cumulative average for this time period (Figure 2). The predation estimate (expanded for weekends only) of 681 salmonids is similar to the 2002-2014 cumulative average of 669 salmonids consumed through April 6. We have observed 265 salmonid catches by CSL and 296 salmonid catches by SSL.

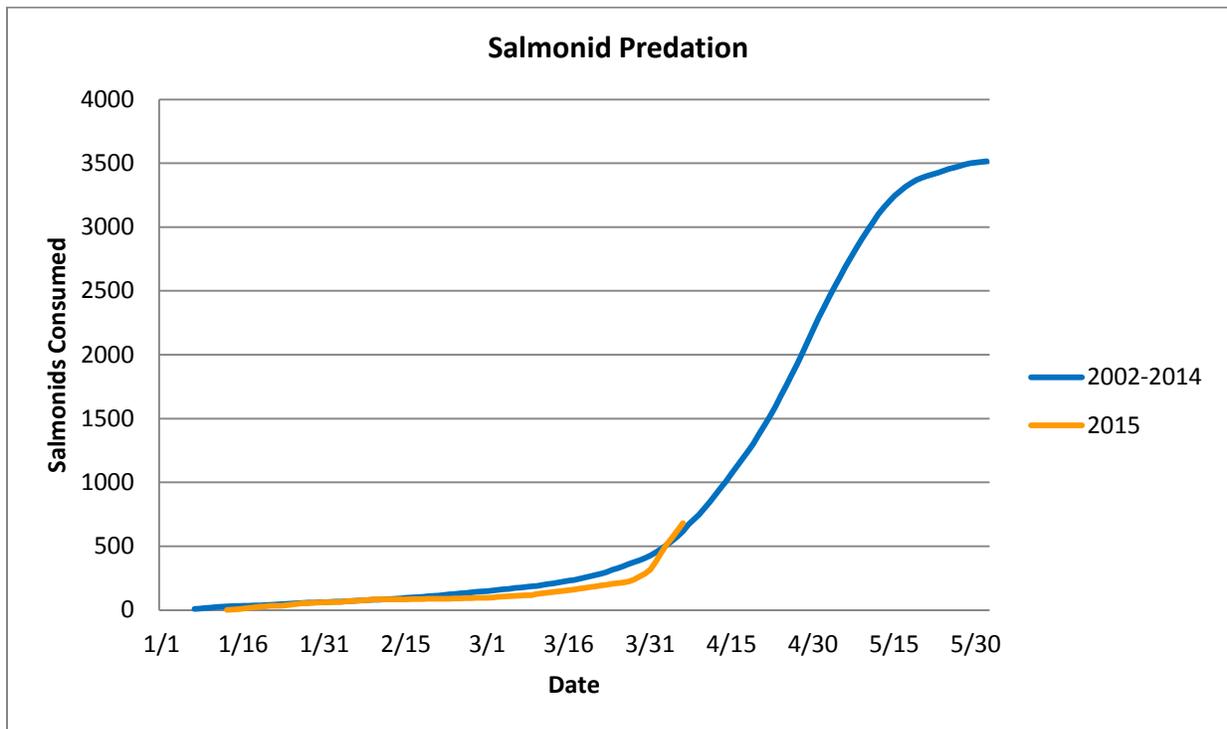


Figure 2. Adult salmonid predation by pinnipeds at Bonneville Dam.

Estimated White Sturgeon predation has been low for the 2015 field season (Figure 3). The predation estimate (expanded for weekends only) of 30 sturgeon is below the 2006-2014 cumulative average of 1271 sturgeon consumed through April 6.

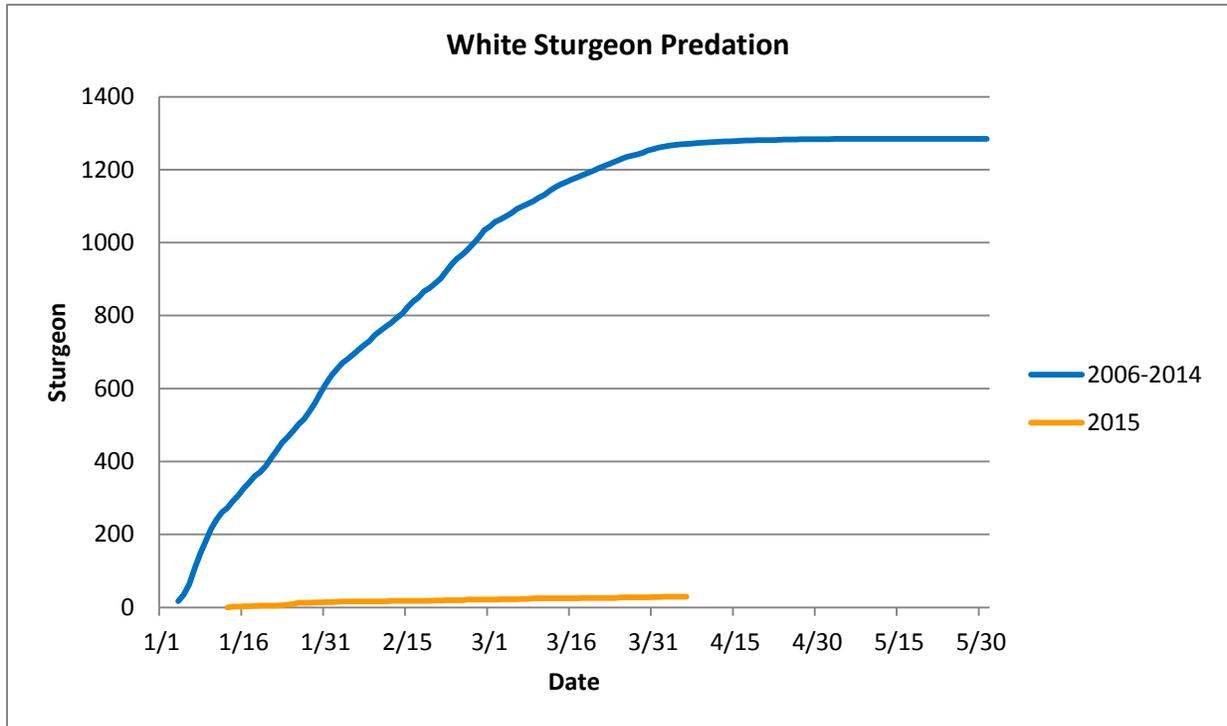


Figure 3. White sturgeon predation by pinnipeds at Bonneville Dam.

Pinniped Deterrents

Sea lion exclusion devices (SLEDs) were installed at all fishway entrances by March 4. Specifically, the SLEDs at Powerhouse Two were installed on February 24; Cascades Island entrance on March 1; B-branch entrance on March 4; and Powerhouse One on 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

Information on all pinniped management activities conducted by the states of Oregon and Washington that occur at Bonneville Dam can be found at Oregon Department of Fish & Wildlife’s California sea lion management website. This website is located at: <http://www.dfw.state.or.us/fish/SeaLion/>.