

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

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### **April 23, 2015**

This is the fourth 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 22, 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 47 on April 22. We have documented 91 branded CSL in the tailrace thus far. Of these, 20 were brands seen in previous years, 15 were brands that had not previously been observed at Bonneville, and 56 were CSL that were trapped and branded at Bonneville this field season.

Stellar 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 52 unique individual SSL in the tailrace thus far. Of these, 33 were repeat individuals and 17 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, and 22 in March. There has been an average of 73 pinnipeds per day thus far in April.

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.

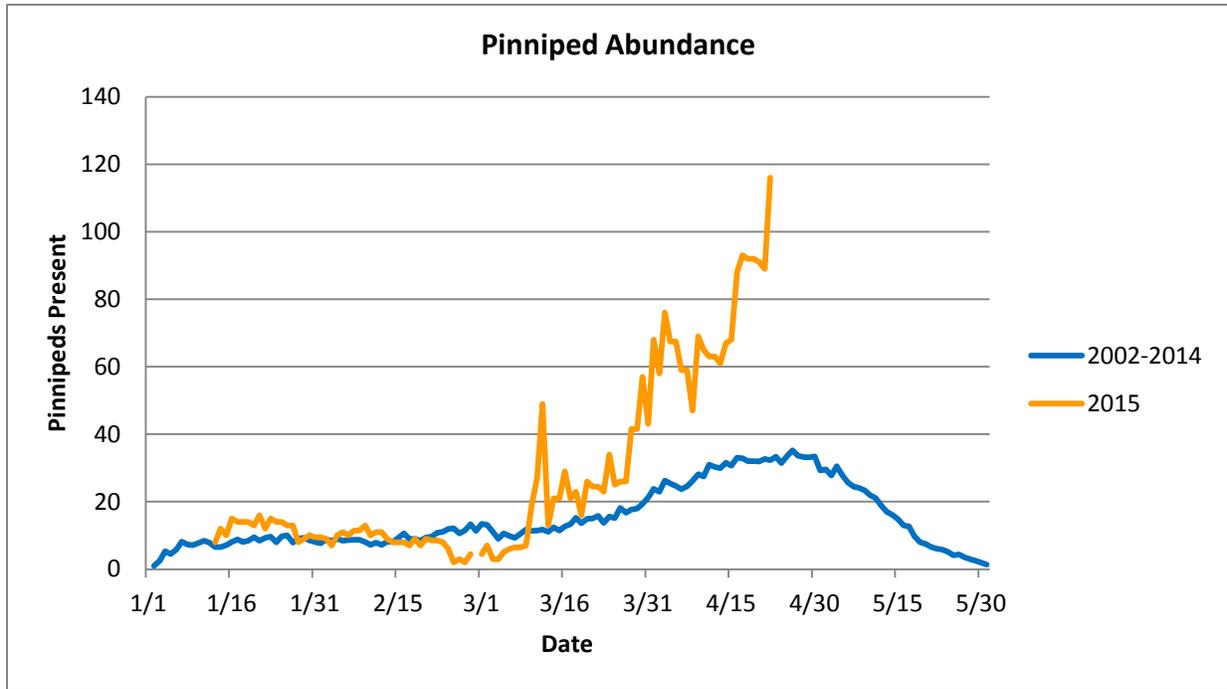


Figure 1. Pinniped abundance (California sea lion and Steller sea lion combined) at Bonneville Dam.

**Predation Data**

Unexpanded numbers for fish consumed by pinnipeds in the Bonneville Dam tailrace for 2015 through April 21 are listed in Table 1.

Table 1. Observed fish catches by fish species and pinniped species from January 13 to April 21, 2015 (70 days of observation).

Prey	California Sea Lion	Steller Sea Lion	Total
Chinook Salmon	999	667	1666
Steelhead	15	88	103
White Sturgeon	2	21	23
Pacific Lamprey	9	5	14
American Shad	0	4	4
Other Species	6	5	11
Unknown Species	101	144	245
<b>Total</b>	<b>1132</b>	<b>934</b>	<b>2066</b>

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 2,549 salmonids is greater than the 2002-2014 cumulative average of 1,517 salmonids consumed through April 21. We have observed 1,014 salmonid catches by CSL and 755 salmonid catches by SSL.

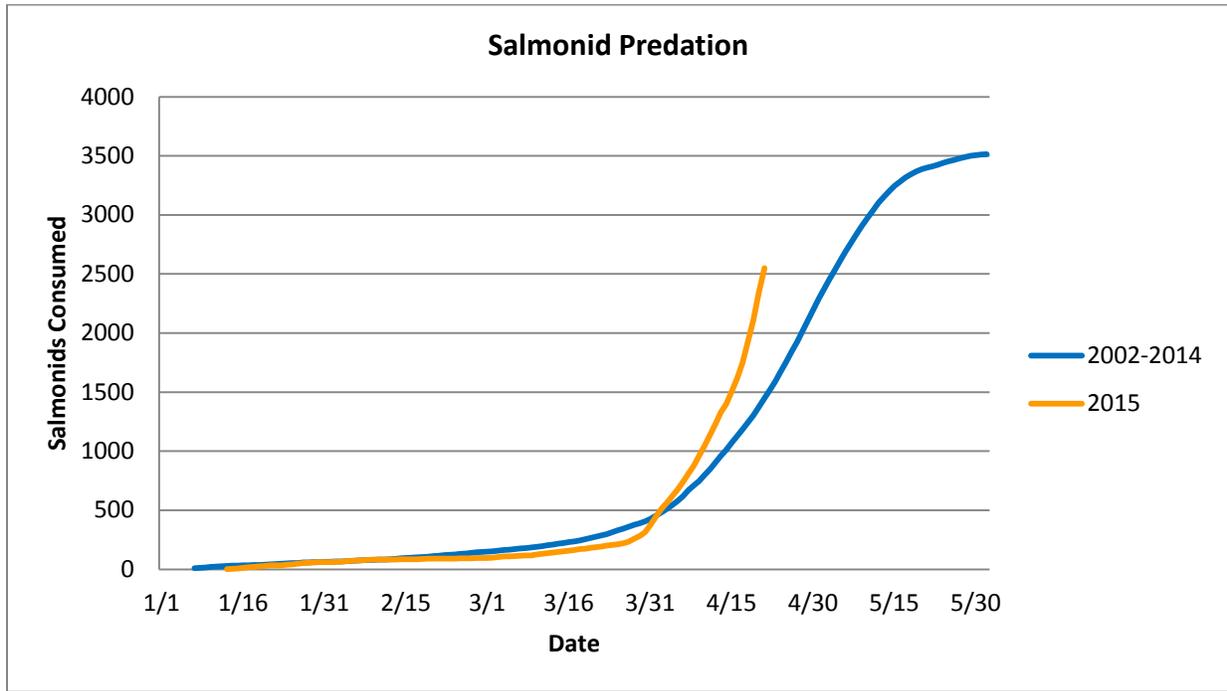


Figure 2. Adult salmonid predation by pinnipeds at Bonneville Dam.

Estimated White Sturgeon predation has been low for the 2015 field season (Figure 3). The predation estimate (expanded for weekends only) of 34 sturgeon is below the 2006-2014 cumulative average of 1,281 sturgeon consumed through April 21.

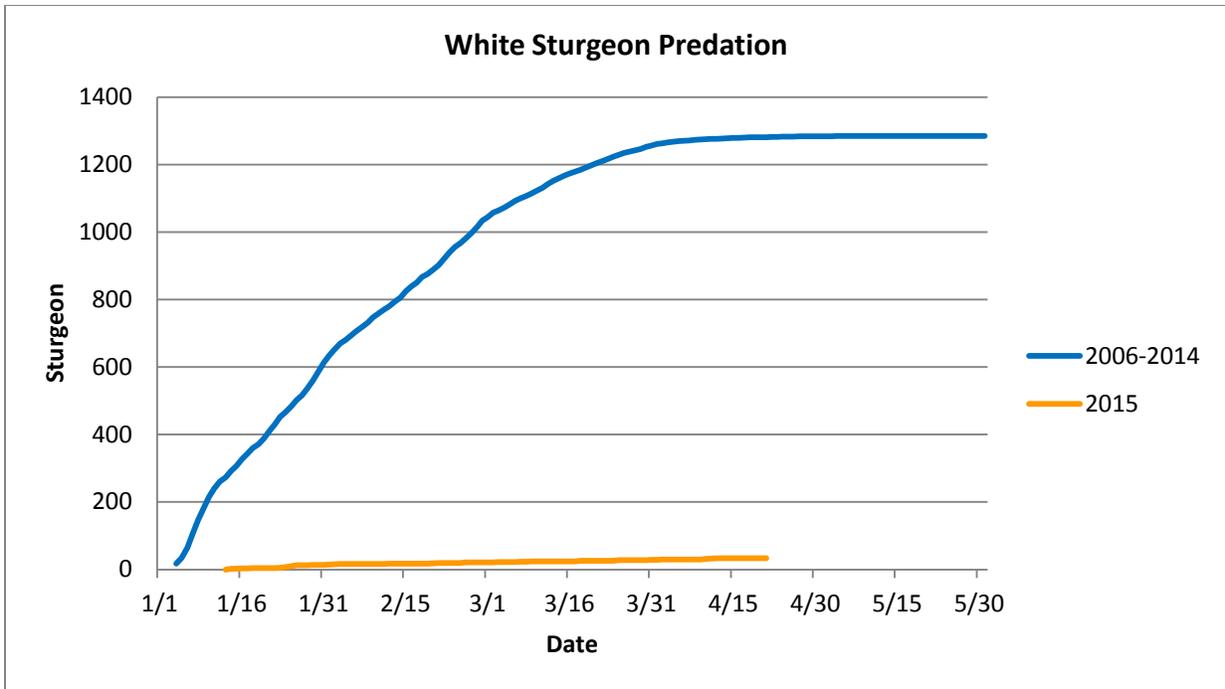


Figure 3. White sturgeon predation by pinnipeds at Bonneville Dam.

### **Pinniped Deterrents**

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

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/>.