

# STATUS REPORT - PINNIPED PREDATION AND DETERRENT ACTIVITIES AT BONNEVILLE DAM, 2011

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

February 25, 2011

This is the third weekly status report of 2011 and summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 1 through February 23, 2011 (unless otherwise noted). This report and earlier reports can be found at:

[http://www.nwd-wc.usace.army.mil/tmt/documents/fish/2011/sea\\_lion\\_hazing2011.html](http://www.nwd-wc.usace.army.mil/tmt/documents/fish/2011/sea_lion_hazing2011.html).

Regular daylight observations began on January 7 and will continue to the end of May, five days per week. Weekends will not be regularly monitored this year, as was the case in 2009/2010. Final predation estimates will be expanded for hours and days not observed at the end of the observation season and these updated figures will be presented in our annual field report.

## 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 2011 evaluation will be available in the fall of this year.*

### PINNIPED ABUNDANCE

We have seen as many as 21 Steller sea lions (*Eumetopias jubatus*) and 2 California sea lions (*Zalophus californianus*) at the dam so far this year (Figures 1). There are more Steller sea lions present per day on average this year, but less California sea lions than previous years (Figure 2). The highest daily abundance estimate for pinnipeds at Bonneville dam was 21 on January 26, however, we have documented at least 34 different individual Steller sea lions since January 7, 21 of those being confirmed as seen in past years. Of the 2 California sea lions, one has been seen for the past three years. February 21 was the first day this year we observed a California sea lion (we do not monitor the weekends), and this is the latest first arrival for California sea lions at the dam since 2004.

A few Steller sea lions continue to be observed hauled out inside the powerhouse two (PH2) corner collector (B2CC) outfall at times, but none have been seen to use the traps as yet.

## **PREDATION DATA**

Unexpanded numbers for fish observed taken in the Bonneville Dam tailrace for 2011 are:

	<u>California Sea Lions</u>	<u>Steller Sea Lions</u>	<u>Total</u>
Chinook	5	2	7
Steelhead	2	66	68
Sturgeon	0	1136	1136
Lamprey	0	0	0
Shad	0	83	83
Other	0	1	1
Unknown	1	508	509

It is likely that at least 90% 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 powerhouse 2 tailrace, but the spillway and powerhouse 1 are almost even (Figure 3). Observed sturgeon catch is almost twice that of last years at this time (Figure 4) with a record high of 122 being observed caught on January 11. Most sturgeon caught are in the 2 to 4 foot range. Few fish are passing the count stations (1,024 steelhead, 8 Chinook) since January 1, slightly less than last year. Total salmonid catch to date (96 expanded by interpolating for weekends) is less than last year (138) but similar to 2009 (82), mostly by Steller sea lions.

## **DETERRENTS/TRAPPING**

Nothing new to report from this past week.

## **OTHER ITEMS OF INTEREST**

Nothing special to report from this past week.

Figure 1. Daily pinniped abundance, by species, at Bonneville Dam, 2011.

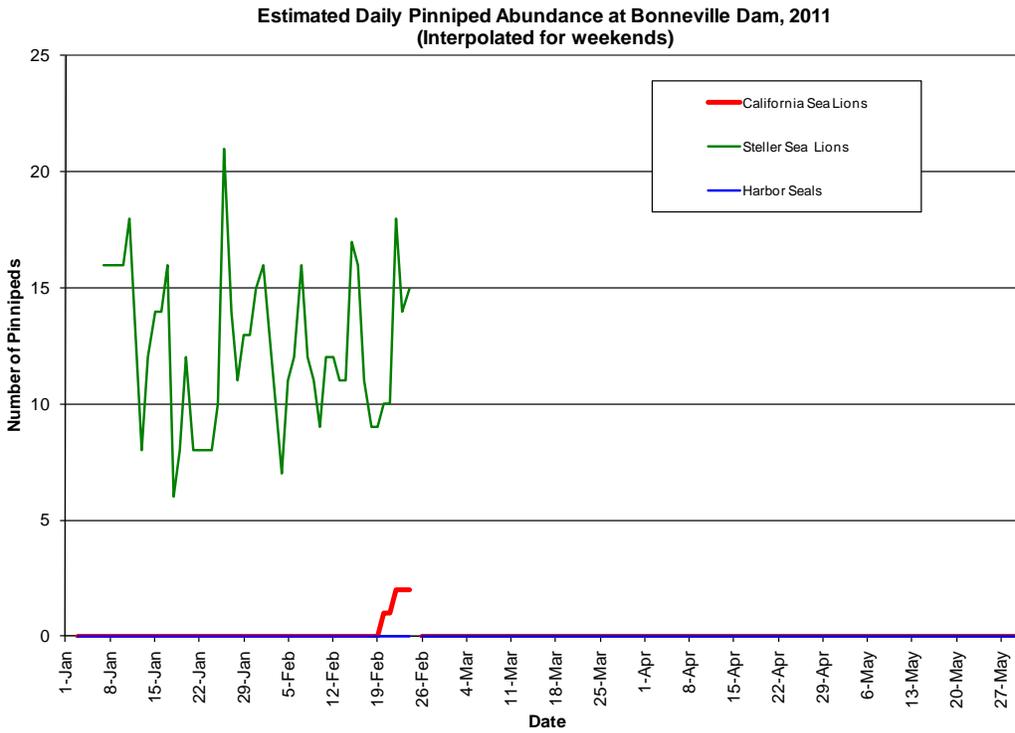


Figure 2. Average daily presence of pinnipeds, by species, to date (February 24) for each year at Bonneville Dam.

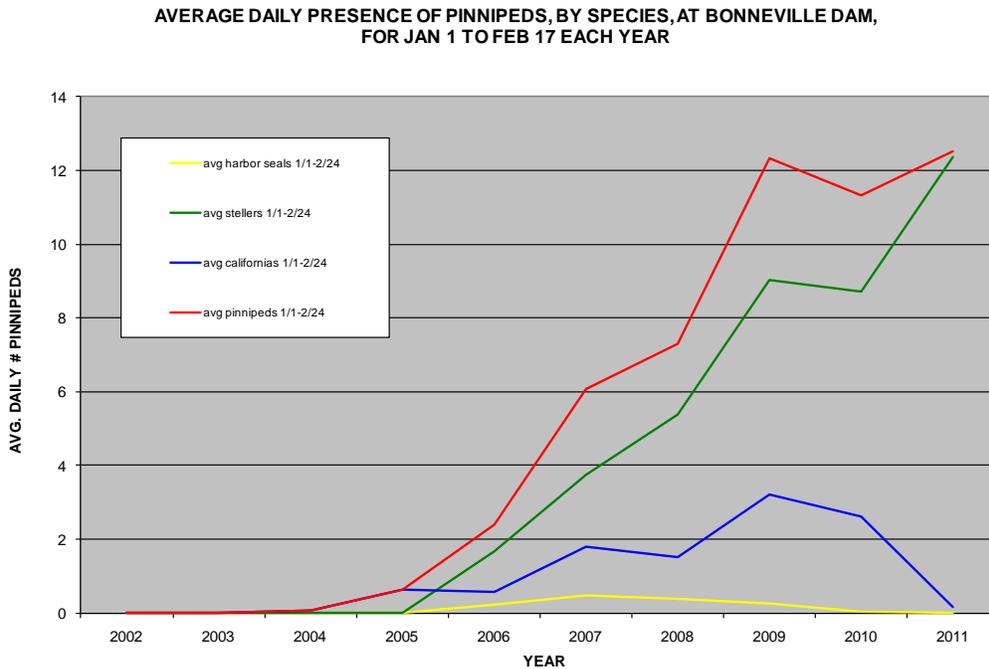


Figure 3. Major prey species taken by Pinnipeds by location, 2011.

Location of Major Prey Taken by Pinnipeds, Bonneville Dam, 2011

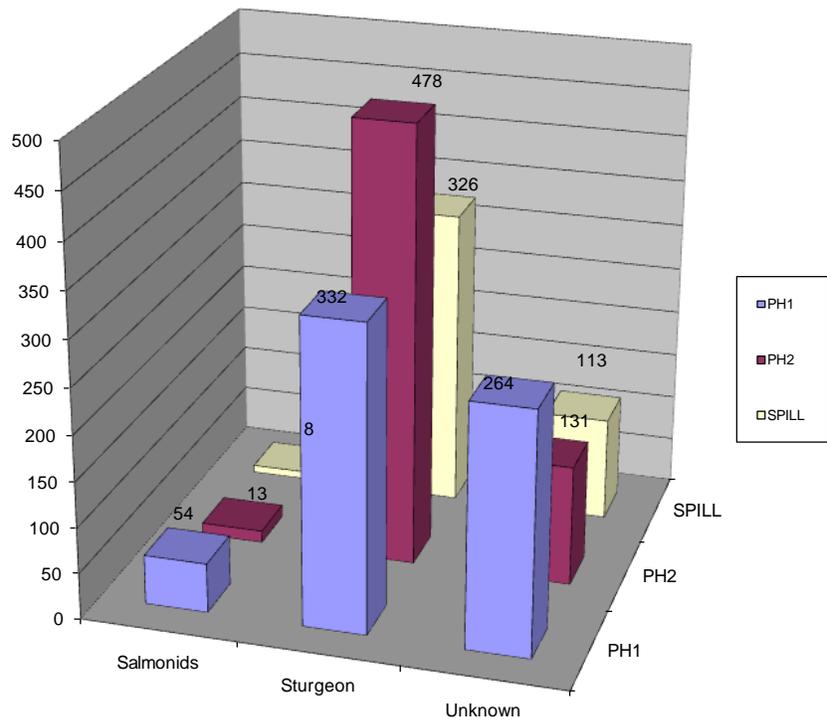


Figure 4. Daily cumulative sturgeon catch (interpolated for weekends) at Bonneville Dam, 2006-2011.

Cumulative Observed Daily Sturgeon Catch at Bonneville Dam, 2006-2011

