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

March 4, 2011

This is the fifth weekly status report of 2011 and summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 1 through March 2, 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. 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 low numbers of California sea lions present at this point is evidence that the removal program of the past three years did remove most of the "regular" returning individuals that would typically show up early in the year and wait for the salmon to show up. The highest daily abundance estimate for pinnipeds at Bonneville dam was 21 on January 26, however, we have documented at least 40 different individual Steller sea lions since January 7, 21 of those being confirmed as seen in past years. Five individual California sea lions have been observed, 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, and the B2CC was operating March 3 and 4 for the balloon tag study.

PREDATION DATA

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

	California Sea Lions	Steller Sea Lions	Total
Chinook	9	7	16
Steelhead	3	72	75
Sturgeon	0	1231	1231
Lamprey	0	0	0
Shad	0	83	83
Other	0	1	1
Unknown	1	547	548

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 (1,090 steelhead, 14 Chinook) since January 1, less than last year. In fact, more Chinook have been observed taken than have past the dam so far, demonstrating the point that the early stocks of spring Chinook are at the greatest risk. Total salmonid catch to date (120 expanded by interpolating for weekends) is less than last year (182) but similar to 2009 (108), mostly by Steller sea lions.

DETERRENTS/TRAPPING

Hazing by CRITFC (boats) and USDA (land) began on February 28 primarily to chase pinnipeds away from special balloon tagged fish used for a kelt passage evaluation. One balloon tagged fish that had become lodged in a debris pile up against the PH1 dam face was seen to be taken by a California sea lion. This was reported to the evaluation crew. Total pinniped numbers were lower this week, likely because of this hazing. The study will conclude Saturday (March 5) but USDA will continue to be present for hazing 7 days per week until the end of May.

OTHER ITEMS OF INTEREST

Nothing special to report from this past week.

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

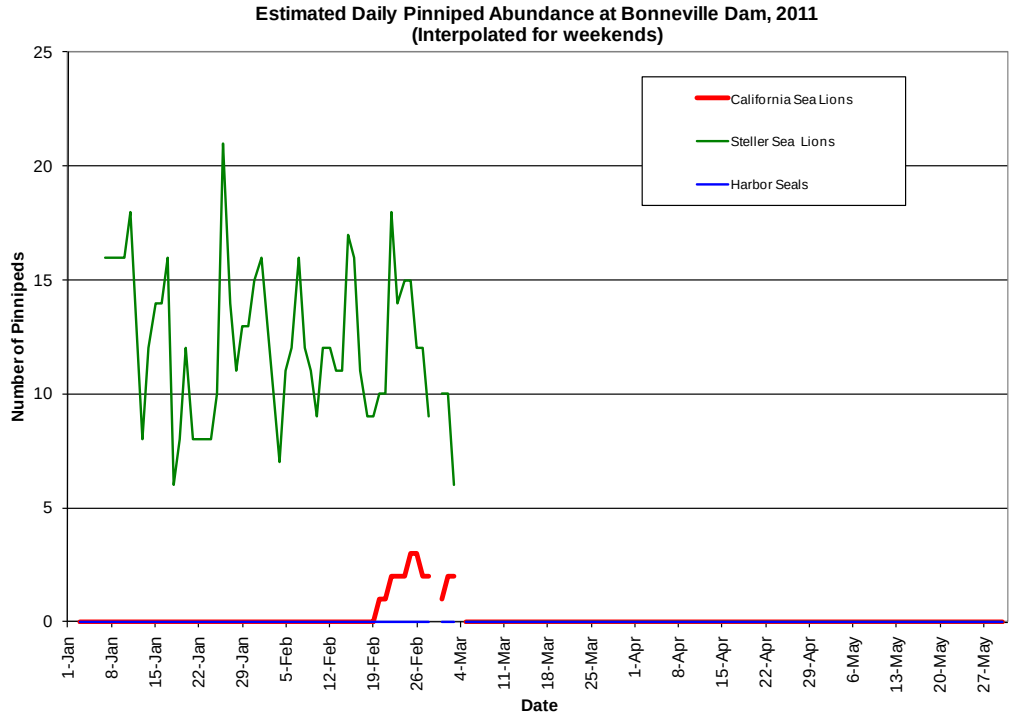

Figure 2. Average daily presence of pinnipeds, by species, to date (March 3) for each year at Bonneville Dam.

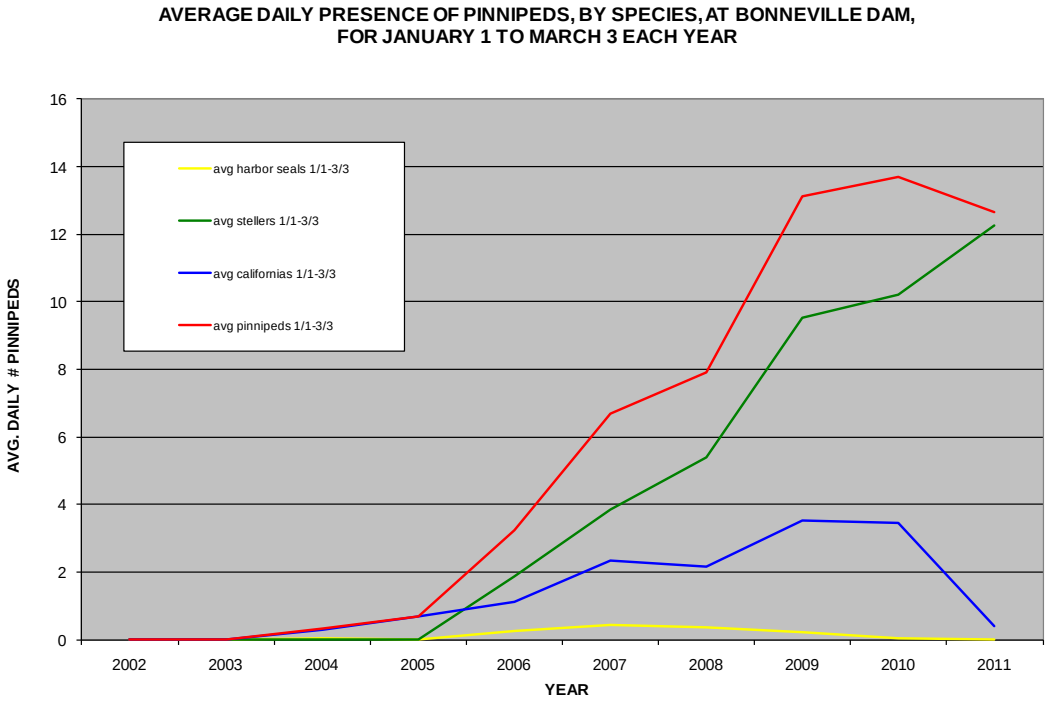

Figure 3. Major prey species taken by Pinnipeds by location, 2011.

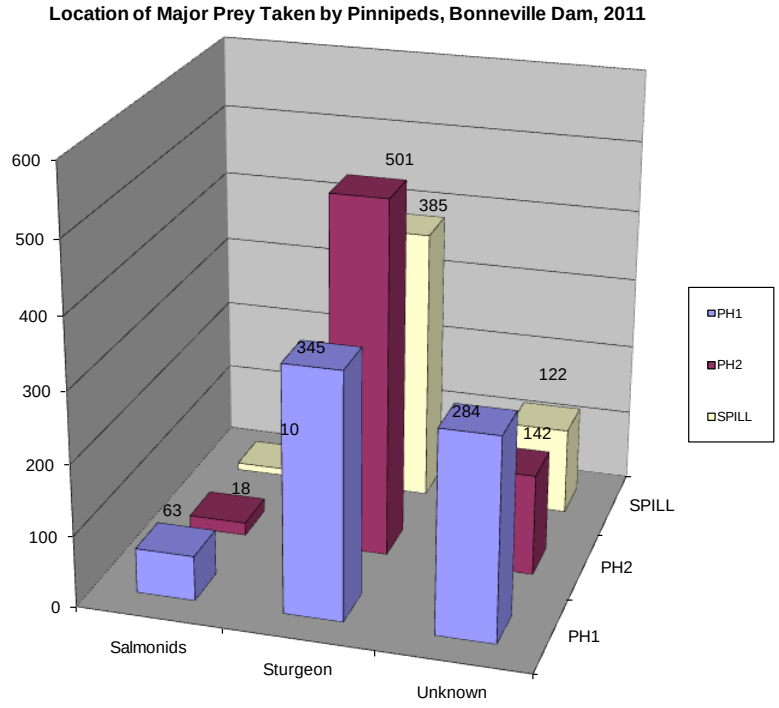

Figure 4. Daily cumulative sturgeon catch (interpolated for weekends) at Bonneville Dam, 2006-2011.