

STATUS REPORT - PINNIPED PREDATION AND DETERRENT ACTIVITIES AT BONNEVILLE DAM, 2009

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This thirteenth weekly status report of 2009 summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 1 through May 6, 2009.

Regular daylight observations began on January 19 and will continue to the end of May, five days per week. Weekends were only monitored twice this year. 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.

Boat-based crews from Oregon Department of Fish and Wildlife (ODFW), Washington Department of Fish and Wildlife (WDFW), and Columbia River Inter-Tribal Fish Commission (CRITFC) began hazing sea lions within the Bonneville dam boat restricted zone (BRZ) and in downriver areas in January, and plan to continue through the end of May. The U.S. Department of Agriculture (USDA) Wildlife Services, contracted by the Corps, began to haze sea lions from dam structures and adjacent lands the first week of March and will continue seven days per week, eight hours per day, during daylight hours through the end of May.

PRELIMINARY RESULTS

All data presented here are preliminary as of the status report date. Predation figures are unexpanded 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 of the 2009 evaluation will be available later this year.

PINNIPED ABUNDANCE

California sea lions numbers continue to be lower than previous years (Figure 6 and 11), likely due to the remove of 11 animals this year and 11 last year, while Steller sea lion numbers are higher than previous years (Figure 6 and 12). Average daily number of California sea lions present from January to the present is the same as for Steller sea lions at this point. We have seen as many as 26 California sea lions and 26 Steller sea lions at the dam on any given day (Figures 1 and 2). The highest daily abundance estimate for all pinnipeds at Bonneville dam was 47 on April 21. We have seen at least 49 different California sea lions, 26 Steller sea lions, and 2 harbor seals since full-time monitoring began. Up to 15 of the California sea lions appear to be new visitors to Bonneville Dam, with the remainder repeats from previous years.

PREDATION DATA

Unexpanded numbers for fish observed taken in the Bonneville Dam tailrace for 2009 are:

	California Sea Lions	Steller Sea Lions	Total
Chinook	2077	219	2296
Steelhead	268	39	307
Sturgeon	37	721	758
Lamprey	33	5	38
Shad	7	12	19
Other	3	1	4
Unknown	206	366	572

Previously, before the last few weeks, you could count on most unknown catch's by Steller sea lions to be sturgeon. But from now to the end of May, unknown catches by Stellers are more likely to be Chinook (Figure 3). Daily unexpanded salmonid catch has been over 100 on nine days in the past three weeks, but has dropped for the last three days. Observed sturgeon catch has exceeded the catch of previous years (Figure 4) with a record 50 being observed caught on February 23. Size distribution of sturgeon seen caught has been similar to the past few years (Figure 10). Only two sturgeon were seen caught last week. Chinook salmon are now the primary prey caught by both California and Steller sea lions, however, the cumulative salmonid catch to date continues to be lower than it has been for the past two years (Figure 7) and daily catch figures are slightly lower (Figure 13). This is likely due to the removal of 11 California sea lions from this year (and 11 last year) from the population that frequented Bonneville Dam to feed on salmon in the spring. However, keep in mind 2009 figures are unexpanded for weekends not observed. More salmonids have been observed caught in PH1 this year (Figure 5). We will try to do some additional analysis for next week or so regarding the impact the animals removed may be having.

C287 has now been observed to take 157 salmonids this season since he was first seen in early April, but he is now in Astoria. Four more animals have also exceeded 100 fish taken. Steller sea lions continued to steal prey from California sea lions regularly this week.

Salmonid passage so far peaked at 8049 on May 2, but has been in the 6000's the past couple of days. This is now only the fourth lowest to date total since we have been observing sea lions back in 2002 (Figures 8 and 9) and very close to last years total at this point. .

DETERRENTS/TRAPPING

Trapping by the states began March 10, and to date, a total of 11 animals have been trapped and removed. This week, no animals were trapped as none were using the traps, but rather hauling out on the concrete pad along the corner collector (none were hauled out anywhere this morning) or rafting nearby. The states will be looking into making the concrete pad less appealing for the sea lions in the coming weeks and the Corps may examine a longer term solution for next year.

Hazing by the states and CRITFC from boats began in January has been conducted on most days (excluding weekends) up through April 8. Hazing continues to have some limited, local, short term impact in reducing predation in the tailrace, but less so now that the spring Chinook run has begun and the number of California sea lions has increased.

OTHER ITEMS OF INTEREST

Night Observations

No night observations were made this past week.

Acoustic Tracking

Only one acoustic tagged animal remains at Bonneville, with two know to be in Astoria and the third likely on it's way.

Figure 1. Daily minimum pinniped abundance (weekends interpolated) at Bonneville Dam, 2002-2009.

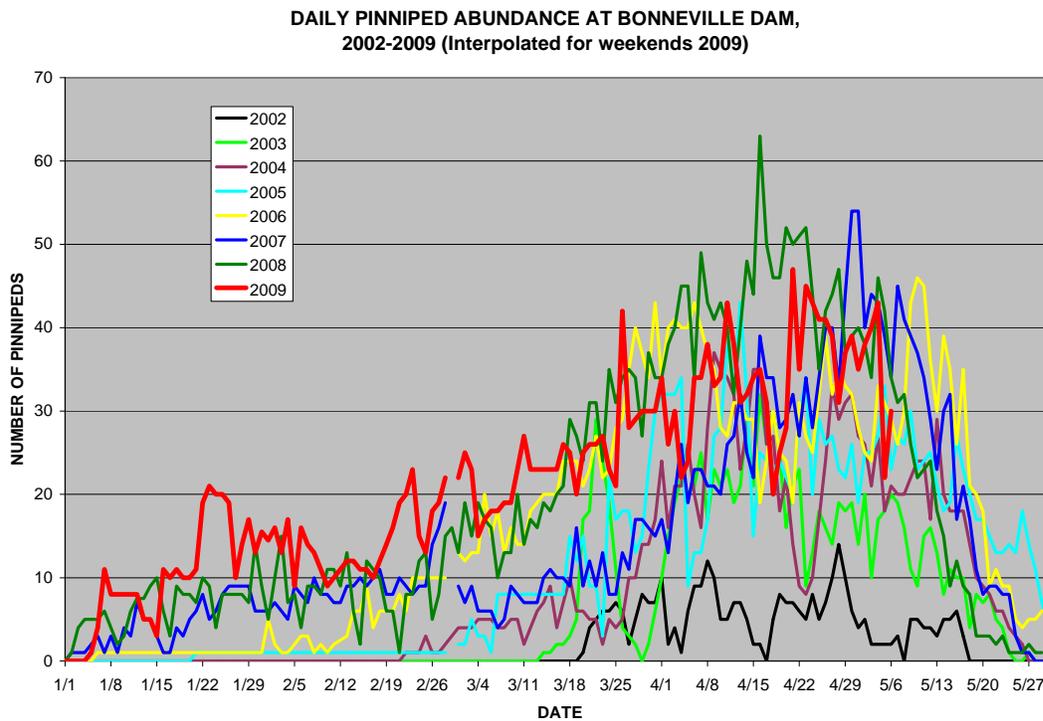


Figure 2. Daily pinniped abundance, by species, at Bonneville Dam, 2009.

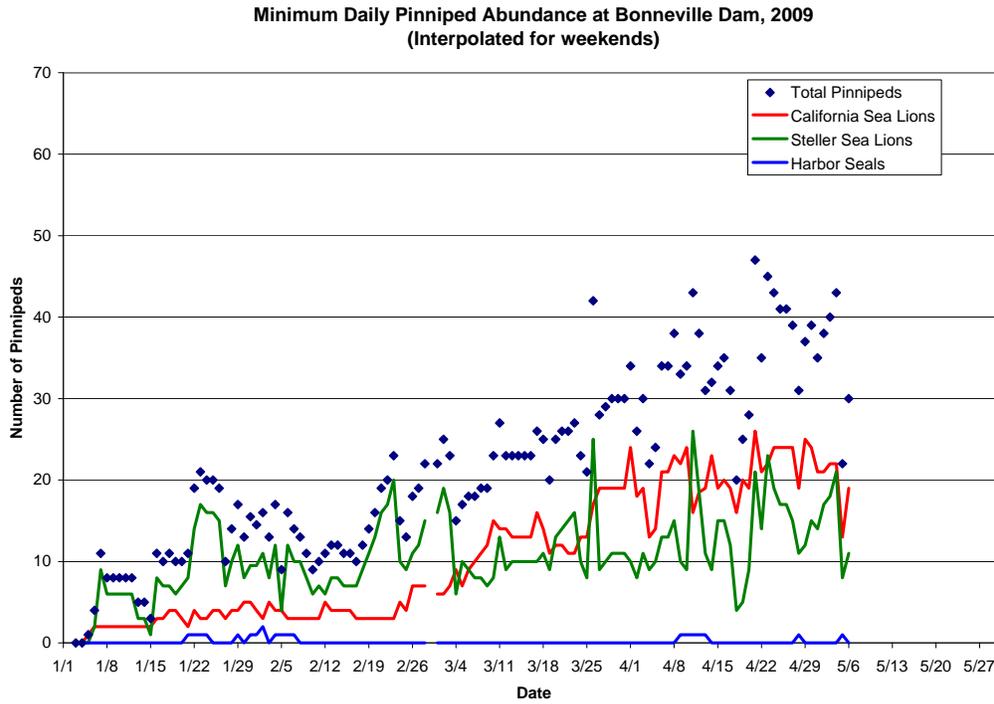


Figure 3. Major prey species taken by Pinniped species at Bonneville Dam, 2009.

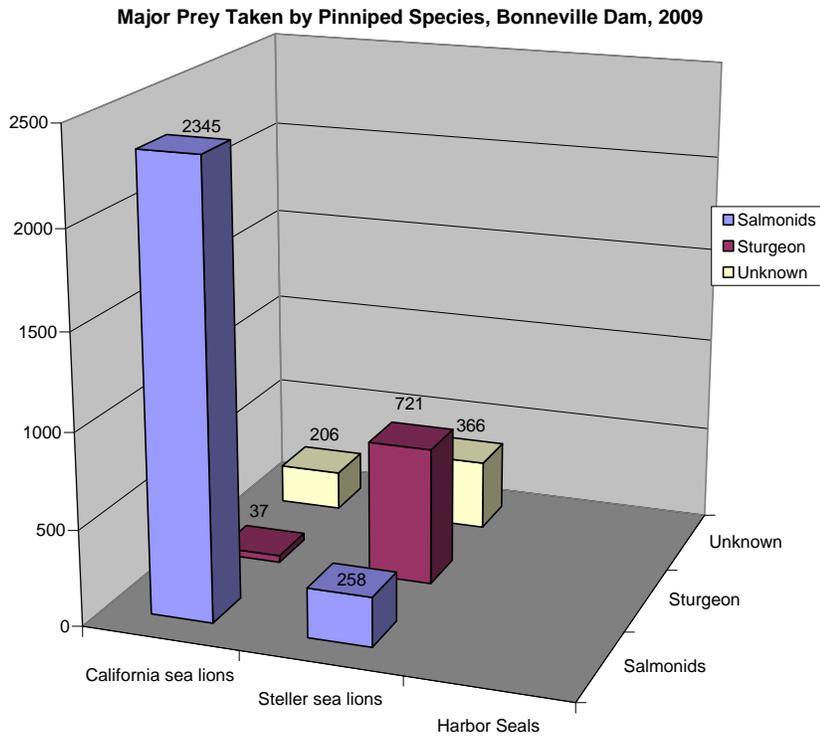


Figure 4. Daily cumulative sturgeon catch at Bonneville Dam, 2006-2009. All data unexpanded.

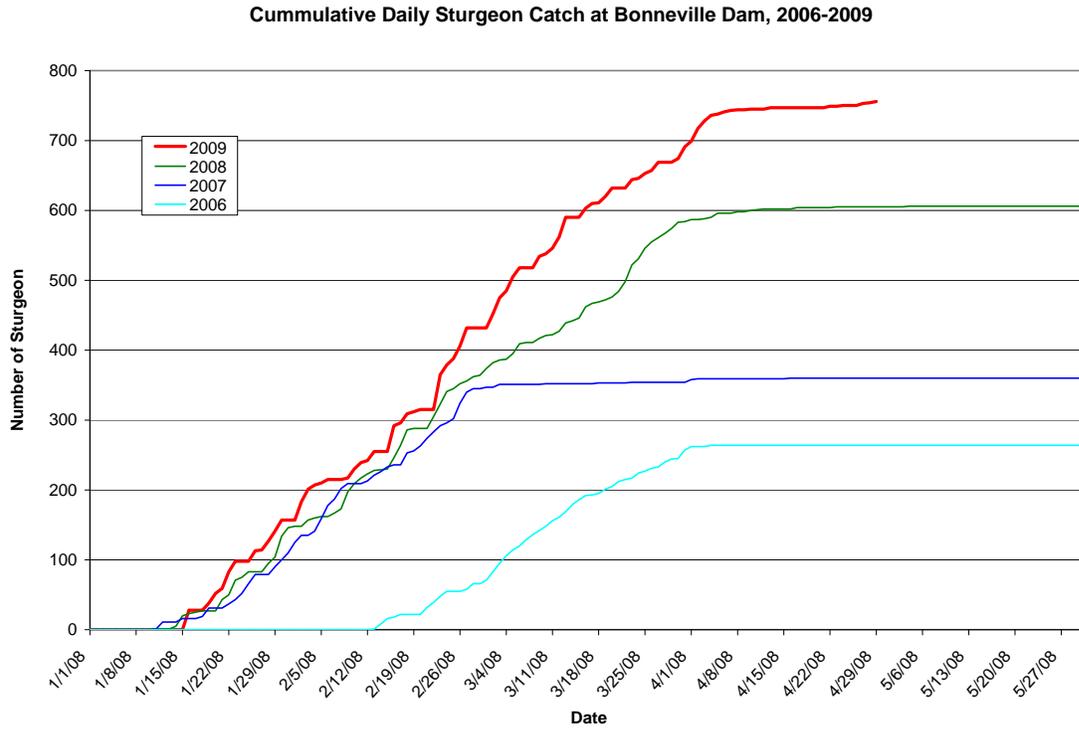


Figure 5. Major prey species taken by Pinnipeds by location, 2009.

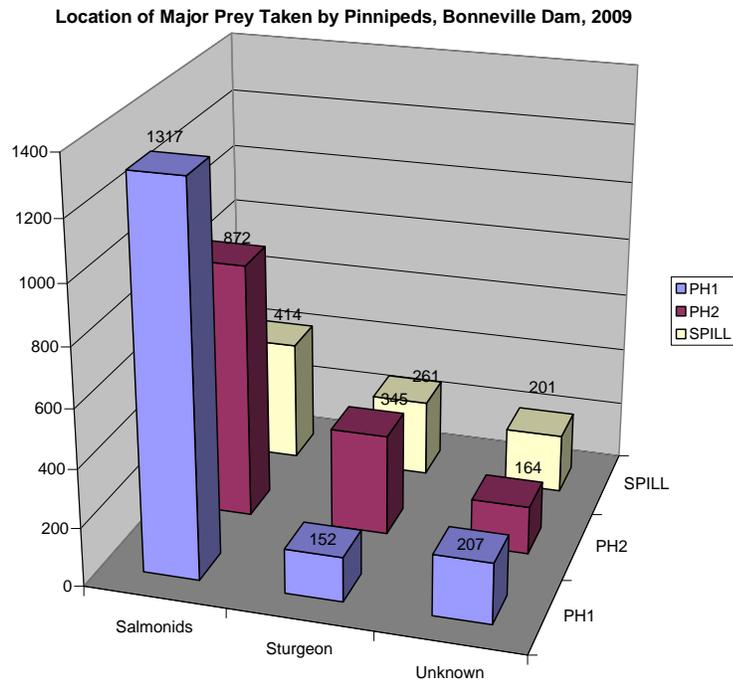


Figure 6. Average daily presence of pinnipeds, by species, to date (May 6) for each year at Bonneville Dam.

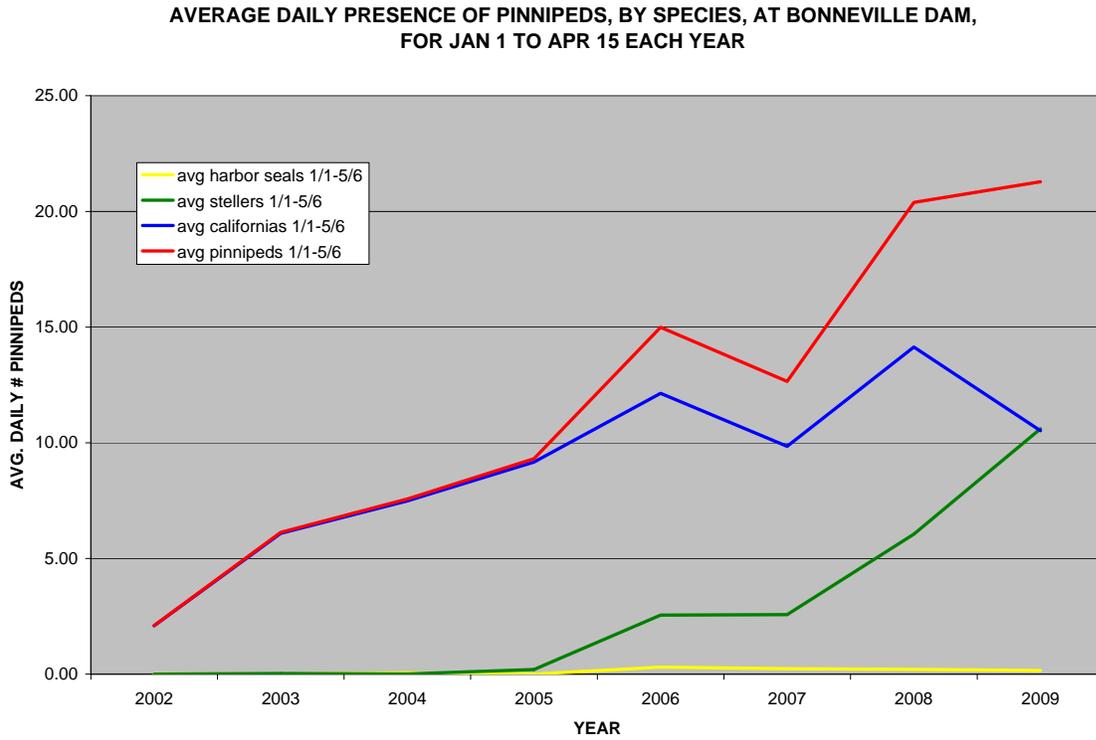


Figure 7. Daily cumulative salmonid catch at Bonneville Dam, 2002-2009. Please note 2009 data presented are unexpanded for weekends not observed.

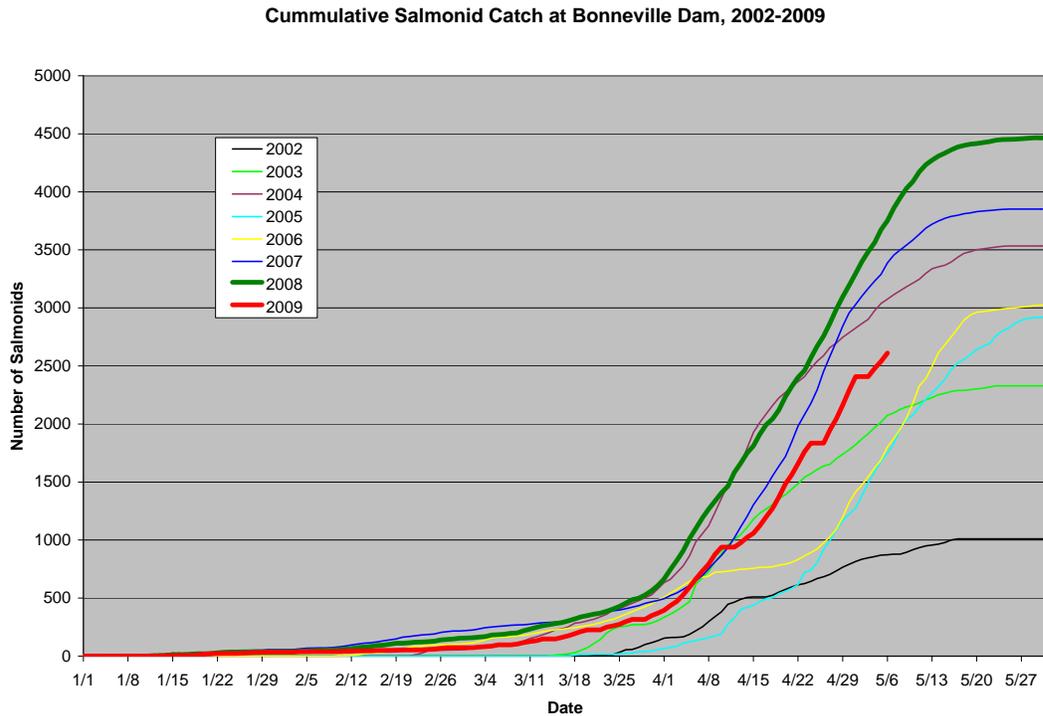


Figure 8. Daily cumulative salmonid passage at Bonneville Dam, 2002-2009.

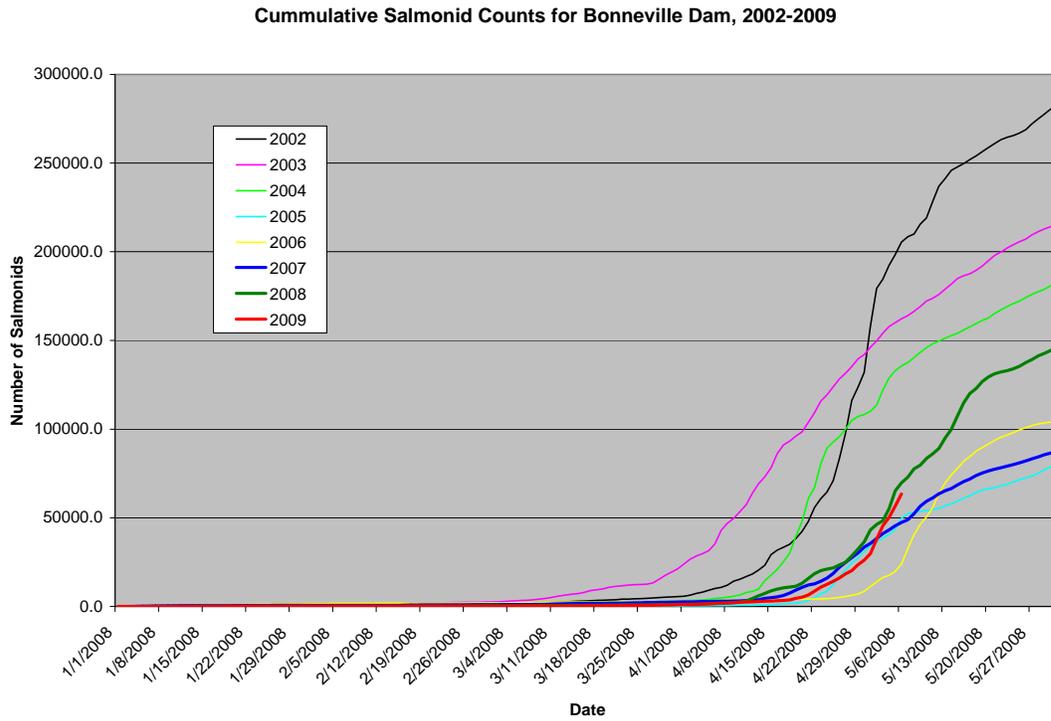


Figure 9. Daily salmonid passage at Bonneville Dam, 2002-2009.

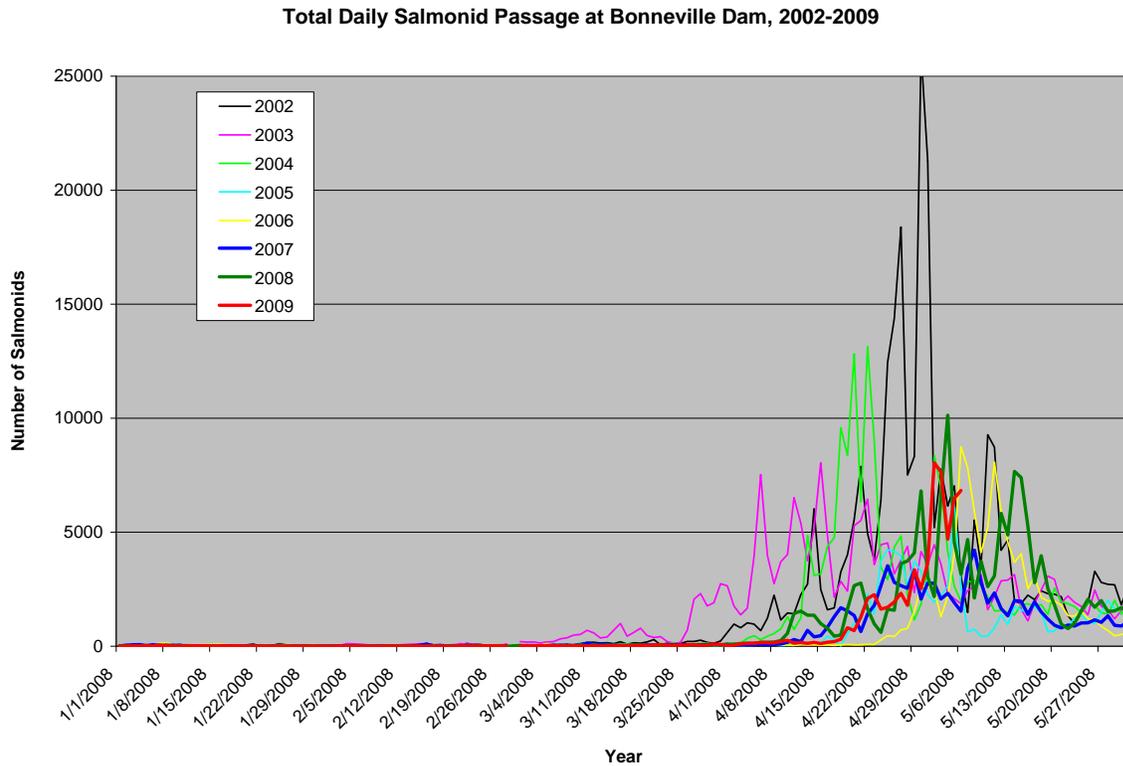


Figure 10. Size distribution of sturgeon observed caught at Bonneville Dam, 2006-2009.

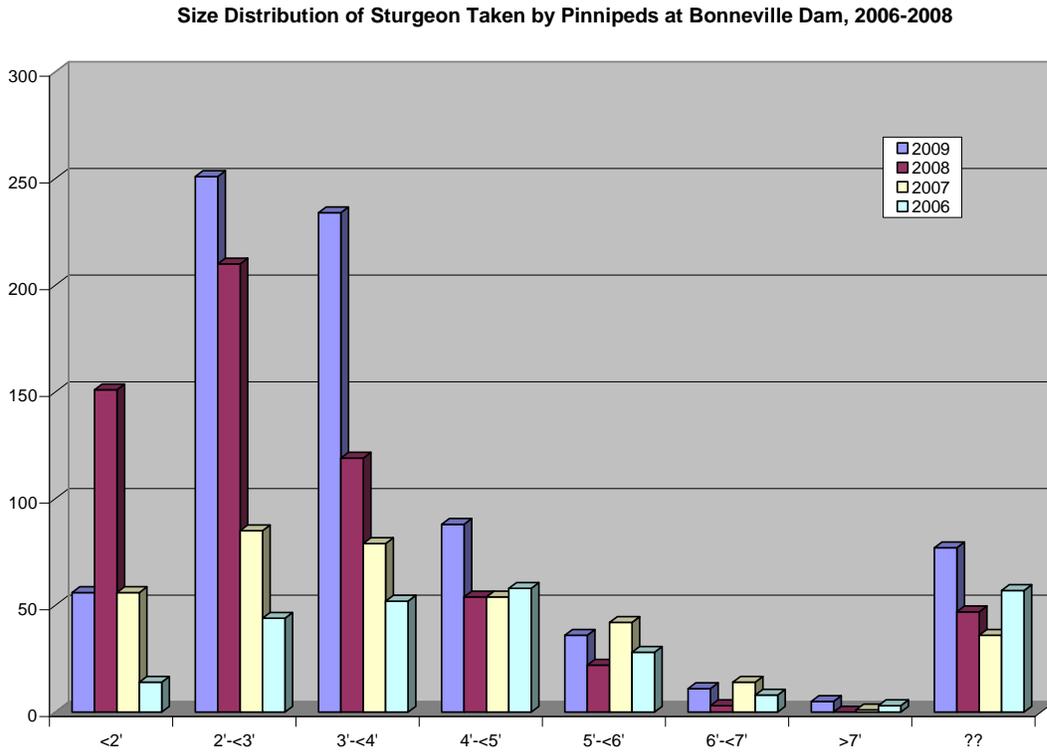


Figure 11. Daily minimum California sea lion abundance (weekends interpolated) at Bonneville Dam, 2002-2009.

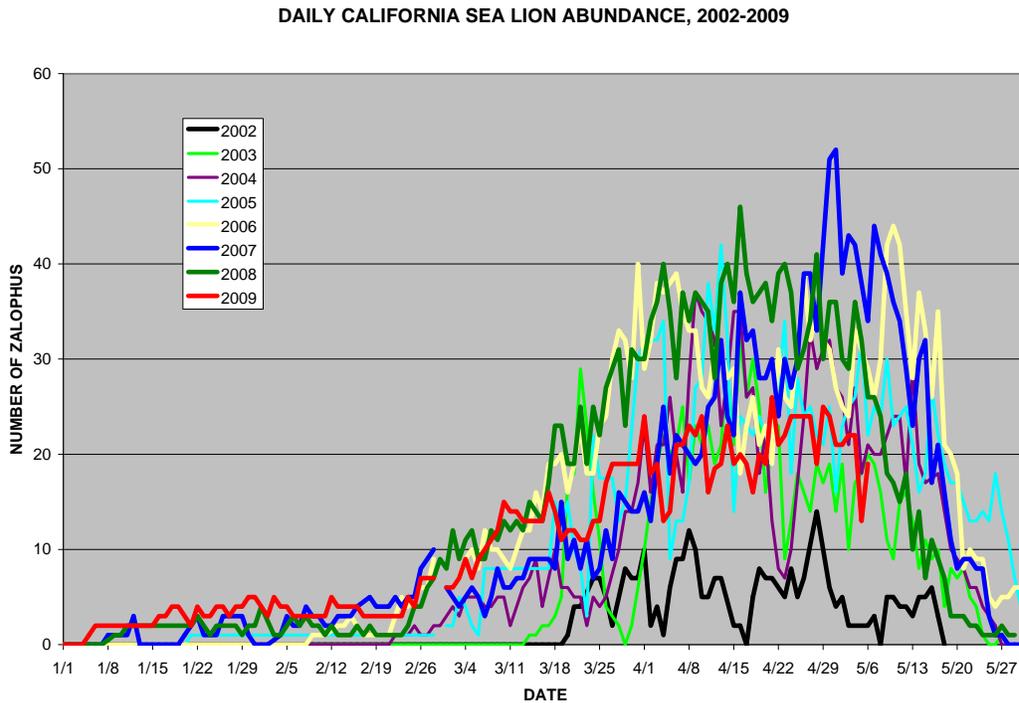


Figure 12. Daily minimum Steller sea lion abundance (weekends interpolated) at Bonneville Dam, 2002-2009.

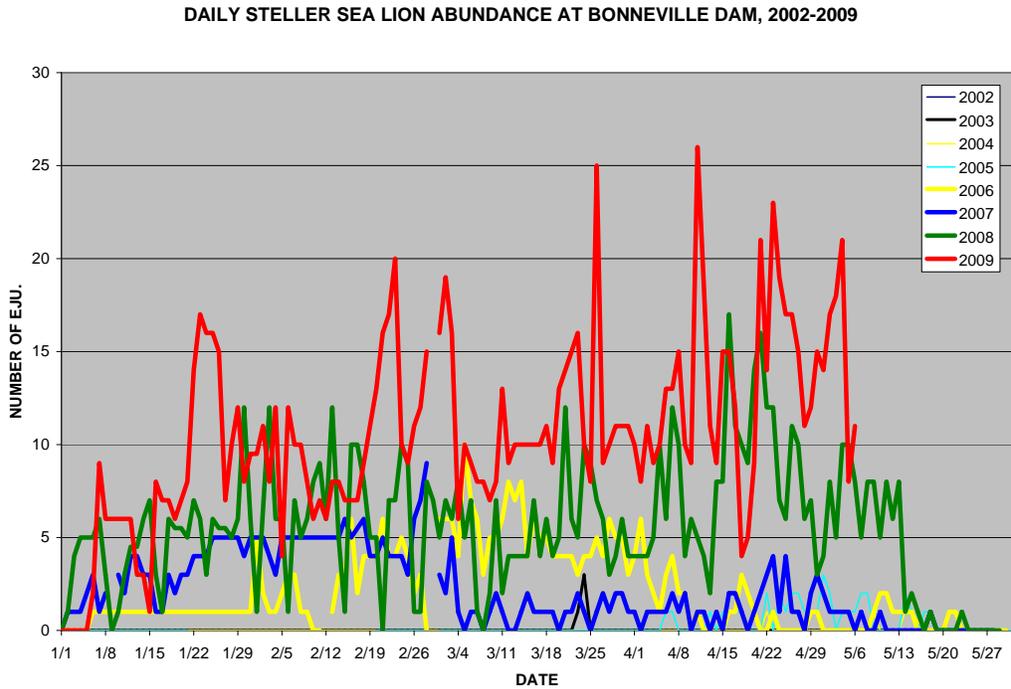


Figure 13. Daily observed (2009 unexpanded) salmonid take at Bonneville Dam, 2002-2009.

