

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

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This seventh weekly status report of 2009 summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 1 through March 18, 2009.

Regular daylight observations began on January 19 and will continue to the end of May, five days per week. Weekends will not be regularly monitored 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 last week 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

Over the past two weeks, we have seen an increase in the number of California sea lions present at the dam. We have seen as many as 16 California sea lions and 20 Steller sea lions at the dam on any given day (Figures 1 and 2). Although the recent removal of five California sea lions from the Bonneville population has obviously dropped their numbers present recently, there have still been more sea lions present per day on average so far this year, both for California and Steller sea lions, than in previous years (Figure 6). The highest daily abundance estimate for all pinnipeds at Bonneville dam was 27 on March 11. We have seen at least 21 different California sea lions, 20 Steller sea lions, and 2 harbor seal (*Phoca vitulina*) since full-time monitoring

began. At least four of the California sea lions appear to be new visitors to Bonneville Dam, with the remainder repeats from previous years.

Both Steller and California sea lions are regularly hauling out on the powerhouse two (PH2) corner collector (B2CC) traps lately.

PREDATION DATA

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

	California Sea Lions	Steller Sea Lions	Total
Chinook	90	6	96
Steelhead	83	15	98
Sturgeon	30	581	611
Lamprey	0	3	3
Shad	6	12	18
Other	1	1	2
Unknown	63	294	357

It is likely that most unknown fish caught by Steller sea lions are sturgeon, while those unknown fish caught by California sea lions were Steelhead (Figure 3). Observed sturgeon catch has already exceeded the catch of previous years (Figure 4) with a record 50 being observed caught on February 23. More sturgeon are now being observed caught in PH2, followed by the spillway, then PH1 (Figure 5). Salmonid passage has begun to increase to double digits most days, with 401 steelhead and 43 chinook passing since January 1, which is the second lowest to date total since we have been observing sea lions back in 2002. However, more Chinook have been observed taken by California sea lions than have passed the dam yet, so they are present and will likely push on through soon.

DETERRENTS/TRAPPING

Trapping by the states began last week with two animals on the removal list being trapped, one on March 10 and the other on March 11. This week, three animals were trapped, one on March 17 and two on March 18. Blood tests from the two captured animals last week showed a urogenital virus in each animal and they were both put down. Of the three this week, two (C700 and C507) got a clean bill of health and will likely go to Shed Aquarium in Chicago. The third, C643, was the only other California sea lion that had been seen every year since 2002, along with C265, which was captured last week. They are still uncertain about its blood test results. The traps will continue to be used to mark California sea lions not previously captured and to remove animals that meet removal criteria in the following weeks, per removal authority granted to the states of Oregon, Washington, and Idaho by NOAA Fisheries under Section 120 of the Marine Mammal Protection Act.

Hazing by the states from boats began in January has been conducted on most days up through March 18. Boat hazing continues to have some limited, local, short term impact in reducing predation in the tailrace, primarily by Stellers on sturgeon, during this time of year. USDA

agents began hazing from the tailrace decks the first week of March and continue seven days per week.

OTHER ITEMS OF INTEREST

A group of animal behavioralists from the International Marine Animal Trainers Association (IMATA) will be coming to Bonneville Dam March 23 and 24 to learn about our pinniped situation. They will listen to state and federal biologists tell them what has been going on here for several years, specifically noting any behaviors observed that could possibly be used to help find ways to deter them from eating salmon at Bonneville Dam.

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

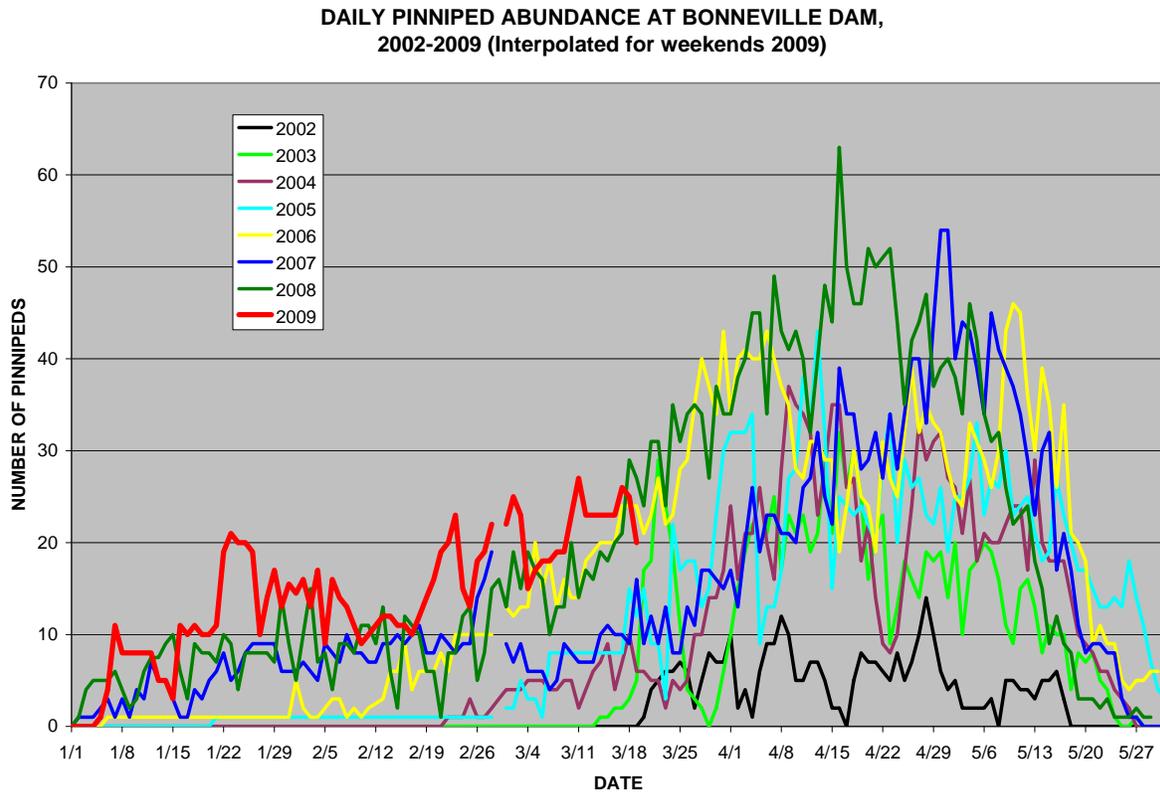


Figure 2. Daily pinniped abundance, by species, at Bonneville Dam, 2009.

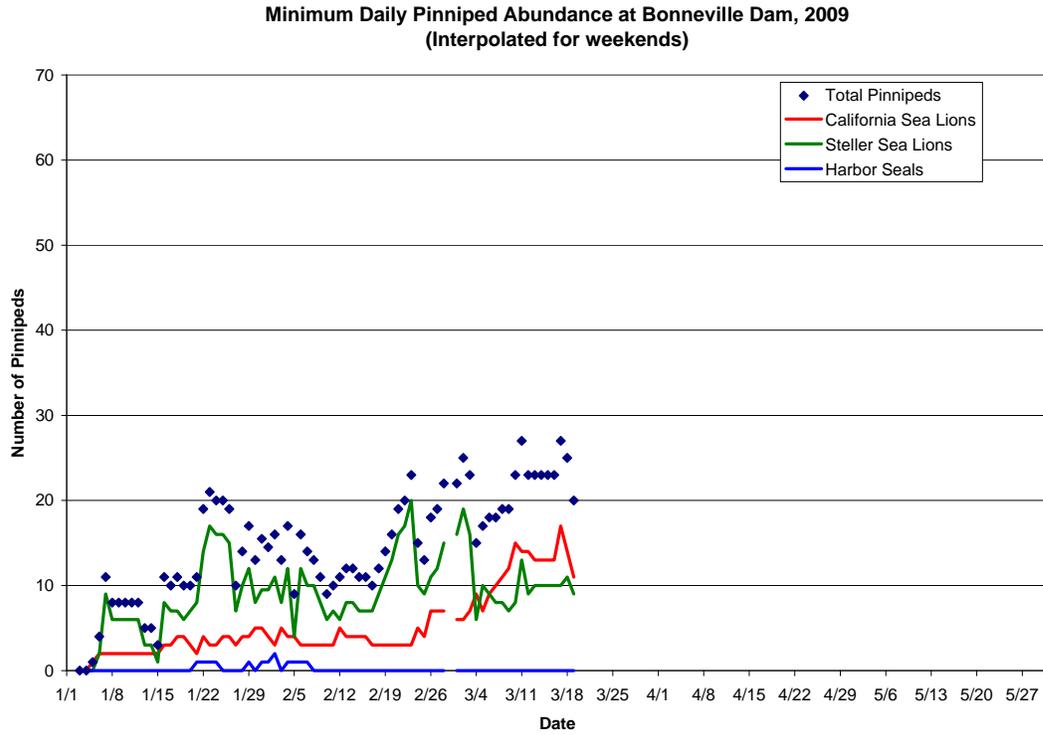


Figure 3. Major prey species taken by Pinniped species at Bonneville Dam, 2009.

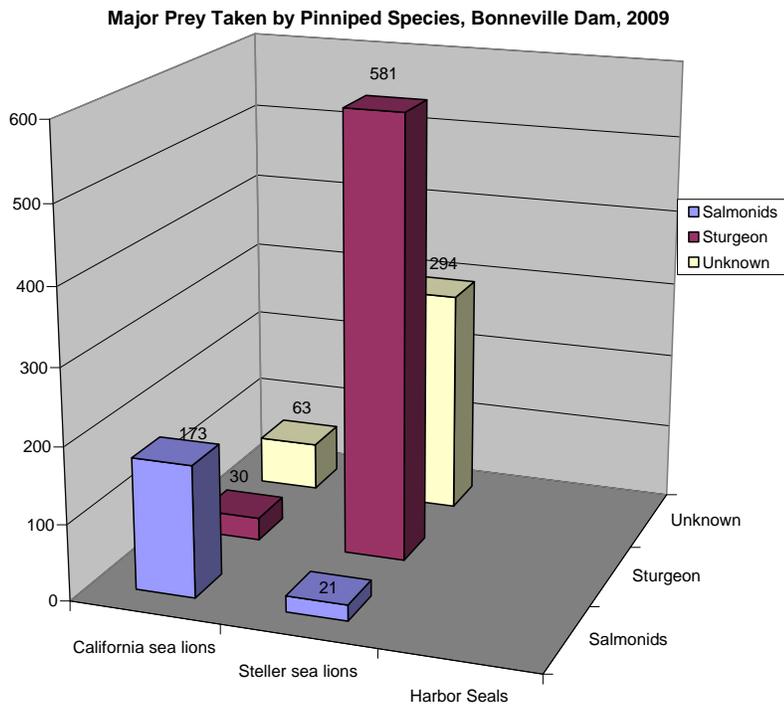


Figure 4. Daily cumulative sturgeon catch at Bonneville Dam, 2006-2009. All data unexpanded.

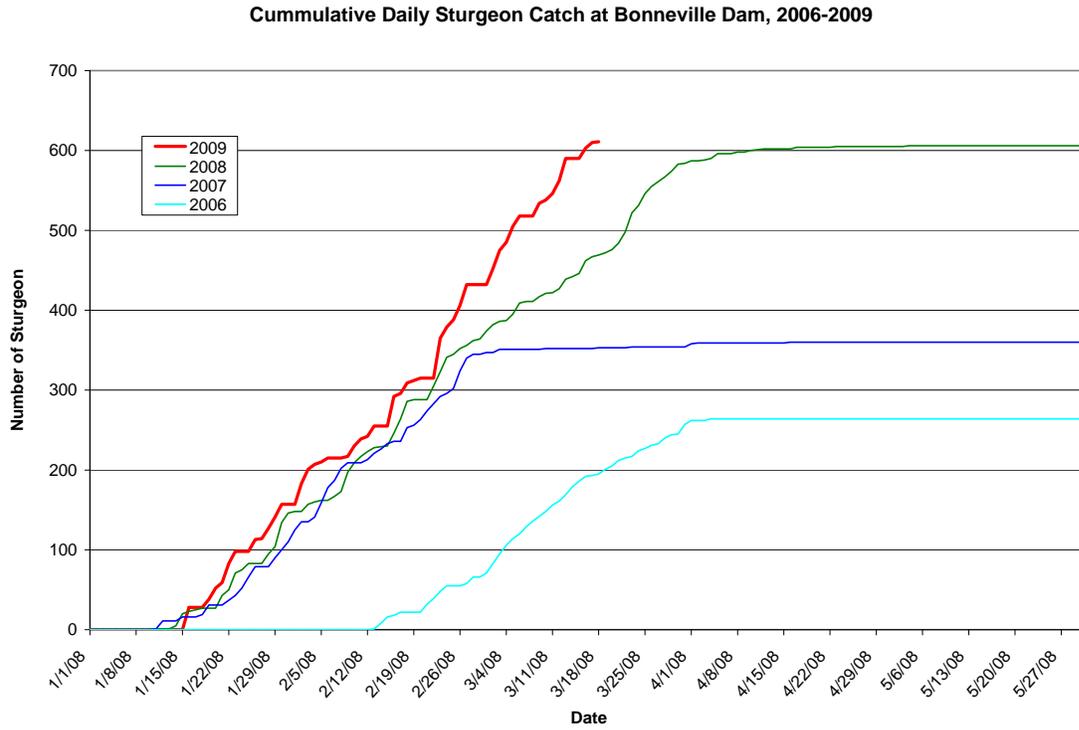


Figure 5. Major prey species taken by Pinnipeds by location, 2009.

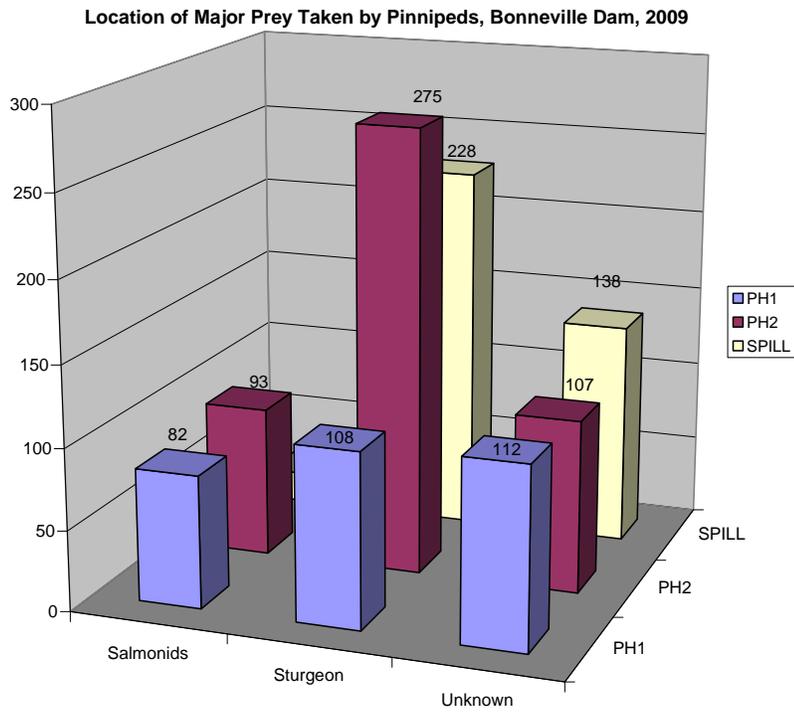


Figure 6. Average daily presence of pinnipeds, by species, to date (March 18) for each year at Bonneville Dam.

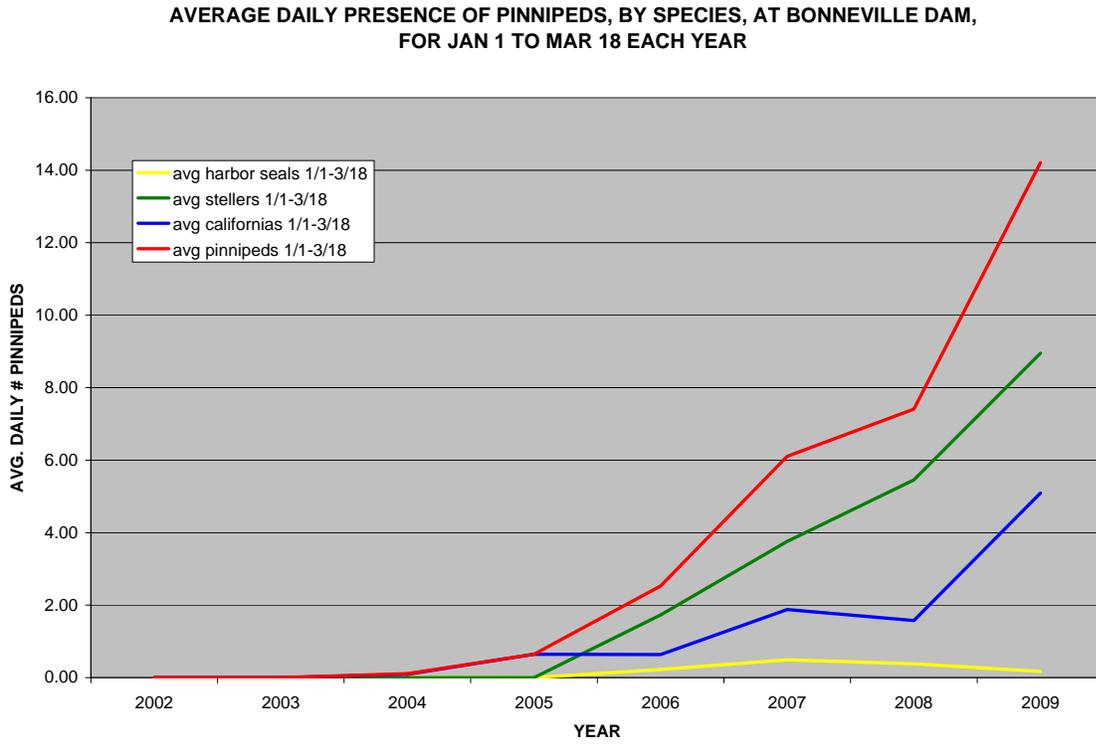


Figure 7. Daily cumulative salmonid catch at Bonneville Dam, 2002-2009. All data unexpanded.

