

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

Robert Stansell, Sean Tackley, and Karrie Gibbons - (541) 374-8801

Fisheries Field Unit
U.S. Army Corps of Engineers
Bonneville Lock and Dam
Cascade Locks, OR 97014

February 13, 2009

This third weekly status report of 2009 summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 1 through February 11, 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 Corps has contracted U.S. Department of Agriculture (USDA) Wildlife Services to haze sea lions from March 1 through May 31, 2009 from dam structures and adjacent lands seven days per week, eight hours per day, during daylight hours.

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

Full daytime observations did not begin until January 19, with limited observations occurring before then. We have seen as many as 17 Steller sea lions and five California sea lions at the dam on any given day (see Figures 1 and 2). The highest daily abundance estimate for all pinnipeds at Bonneville dam was 21 on January 23. We have seen at least seven different California sea lions, 17 Steller sea lions, and 2 harbor seal (*Phoca vitulina*) since full-time monitoring began. All seven of the California sea lions (C265, C586, C635, C657, C805, BZC194, BZC278) have been seen in previous years. A few known "Bonneville" animals have been spotted in Astoria recently but have not shown up at Bonneville yet.

Up to nine Steller sea lions have been documented hauling out inside the powerhouse two (PH2) corner collector (B2CC) outfall. C265 has been observed hauling out on the B2CC apron at PH2, and C635 at spill bay 17. However, there have been few animals hauling out this past week. One Steller sea lion was observed on a B2CC traps on the morning of February 12.

PREDATION DATA

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

	California Sea Lions	Steller Sea Lions	Total
Chinook	1	0	1
Steelhead	29	12	41
Sturgeon	4	235	239
Lamprey	0	1	1
Shad	4	11	14
Other	0	1	1
Unknown	23	203	226

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). The Steller sea lions are catching most of the fish at the downstream range of our viewing area, making fish identification very difficult. Observed sturgeon catch is on pace to exceed the catch of previous years (Figure 4). Most sturgeon are being caught in the spillway, followed by PH2 then PH1 (Figure 5). Very few fish are passing the count stations (176 steelhead) since January 1.

DETERRENTS/TRAPPING

ODFW and WDFW deployed two sea lion traps at the corner collector of Bonneville powerhouse two on February 2 and one trap at the old navigation lock channel by powerhouse one. An additional trap may or may not be deployed at the corner collector in the future. These traps will be used to mark California sea lions not previously captured and to remove animals that meet removal criteria, per removal authority granted to the states of Oregon, Washington, and Idaho by NOAA Fisheries under Section 120 of the Marine Mammal Protection Act.

ODFW and WDFW plan to begin removal operations as soon as March 1, depending upon use of the traps by sea lions and logistical support. Final plans are being developed by the states for transfer of sea lions to captivity (potentially up to 20 animals) and for euthanizing animals that can not go to captivity or do not use the traps. ODFW and WDFW expect to operate the traps weekly (1-3 events per week) through the end of May.

Hazing by the states from boats began in January has been conducted on 10 days up to February 4. Severe weather (snow, ice, sub-zero temperatures, 50mph winds) occurred many days through much of January, limiting days it was safe to operate from boats. On the 10 days of hazing, 154 fish (sturgeon, salmonids, unknown) were observed caught, for an average of 15.4 catches per day, while on 11 days with no hazing, 272 fish were observed caught, an average of 22.7 catches per day. Boat hazing continues to have some limited, local, short term impact in reducing predation, primarily by Stellers on sturgeon, during this time of year.

OTHER ITEMS OF INTEREST

None this week.

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

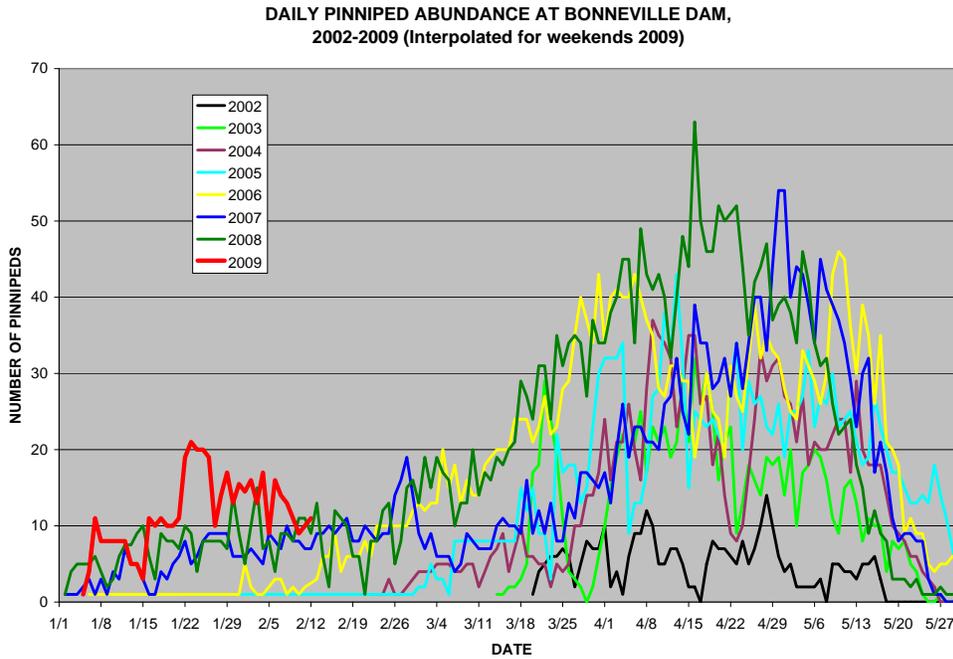


Figure 2. Daily pinniped abundance, by species, at Bonneville Dam, 2009.

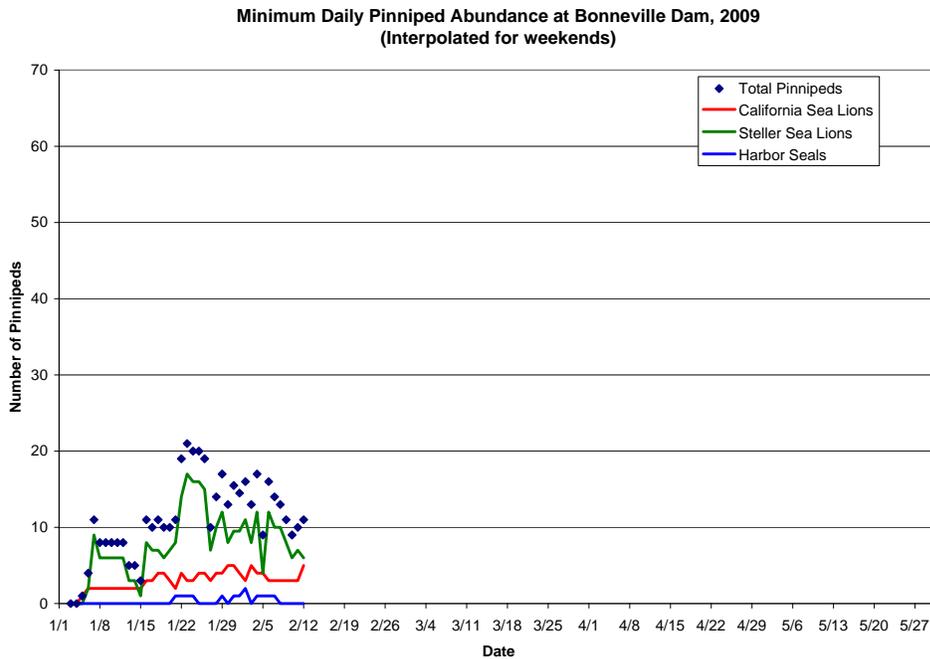


Figure 3. Major prey species taken by Pinniped species at Bonneville Dam, 2009.

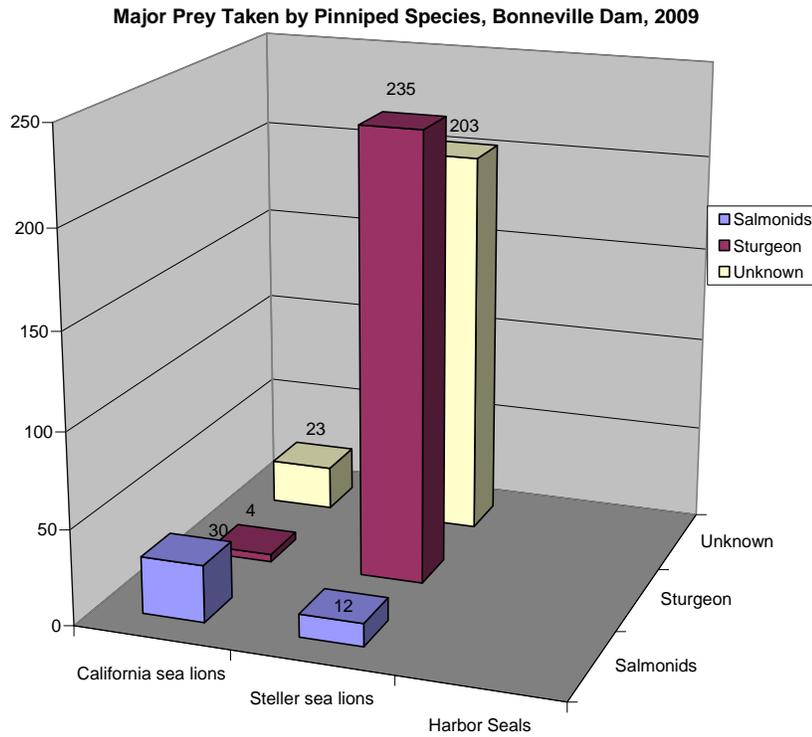


Figure 4. Daily cumulative sturgeon catch at Bonneville Dam, 2006-2009. All data unexpanded.

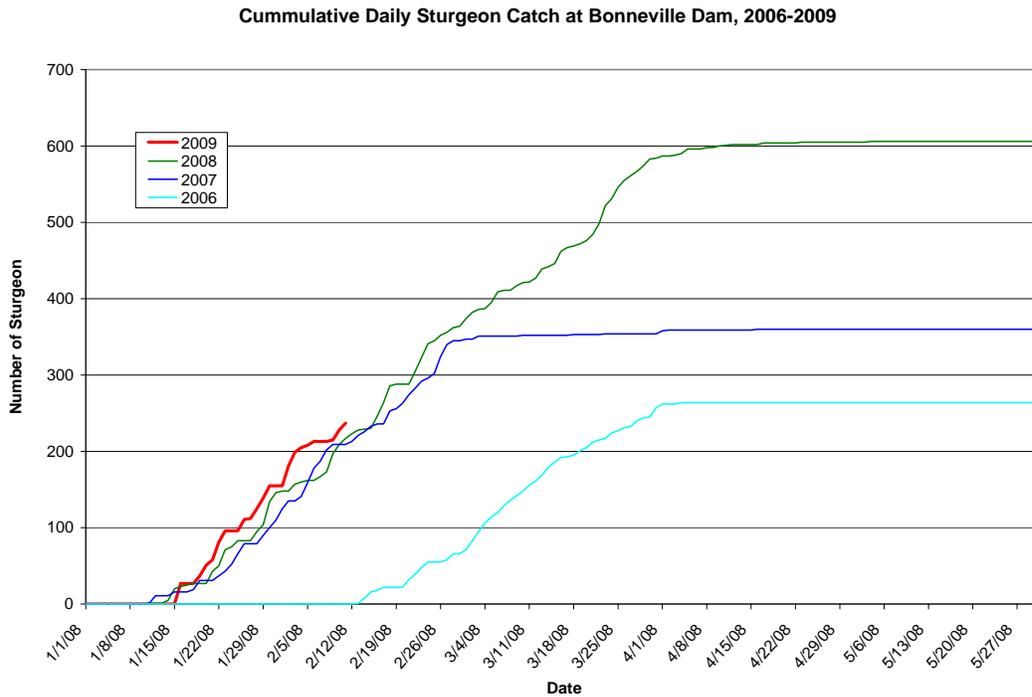


Figure 5. Major prey species taken by Pinnipeds by location, 2009.

