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

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This second weekly status report of 2009 summarizes all pinniped predation monitoring and deterrent activities at Bonneville Dam from January 1 through February 4, 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 six different California sea lions, 17 Steller sea lions, and 2 harbor seal (*Phoca vitulina*) since full-time monitoring began. All six of the California sea lions (C265, 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. No animals have been observed on the traps as of yet.

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	25	13	38
Sturgeon	3	202	205
Lamprey	0	1	1
Shad	3	11	14
Other	0	1	1
Unknown	19	191	210

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 (167 primarily 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 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 six days up to February 4. Severe weather (snow, ice, sub-zero temperatures, 50 mph winds) occurred many days through much of January, limiting days it was safe to operate from boats.

OTHER ITEMS OF INTEREST

Last week I reported all SLED's had been deployed, however the SLED's at then north end of PH1 had not been deployed until the late afternoon of January 30. On January 31, we received a call that a sea lion had been seen inside the Bradford Island fishway. C635, which had been observed in the PH1 tailrace on the afternoon of January 30, was indeed trapped inside the fishway. He was very large and could not have fit through the SLED bars, so he must have entered the fishway and been inside when the project dropped the final SLED's in place (as with previous years, the acoustic deterrents appear to be ineffective at keeping sea lions away from fishway entrances). The project crane crew pulled the south PH1 SLED's at approximately 1000h, C635 was chased/harassed from the base of B-branch entrance up the ladder, down A-branch and into the collection channel, and after not seeing the animal again for a few hours, the project dropped the SLED's back in at approximately 1300h (we did not want other sea lions in the area to enter). C635 was subsequently confirmed to be outside the fishways and in the tailrace on February 2.

NOAA delivered a press release regarding the findings of the Federal authorities investigation into the deaths of four California sea lions and two Steller sea lions on two traps located at Bonneville Dam last May 4, 2008. The report said that there was no evidence people were directly involved in the deaths of the sea lions, that the likely cause of death was heat exhaustion when they became agitated and could not enter the water, and that the trap doors were likely tripped closed by a combination of factors including rising tailwater levels and/or sea lions moving over or getting entangle in ropes dangling in the water that were used to trip the gates shut. In response, the states have modified the traps so that the gates are locked open and can only be tripped by a unique remote-controlled magnetic device.

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

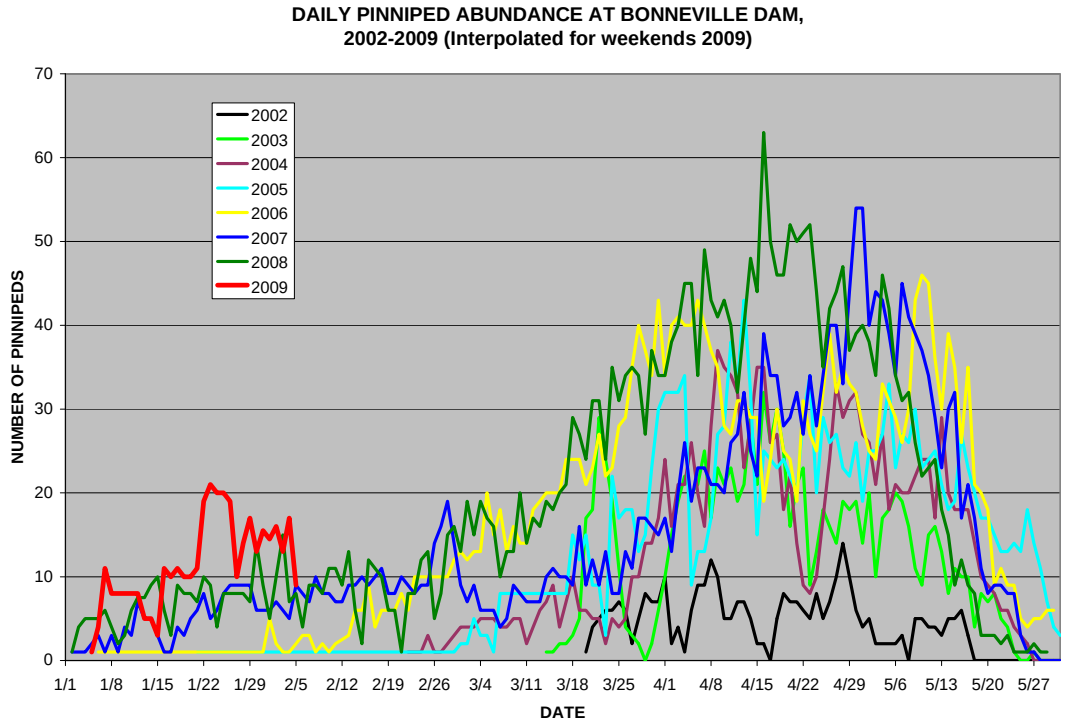

Figure 2. Daily pinniped abundance, by species, at Bonneville Dam, 2009.

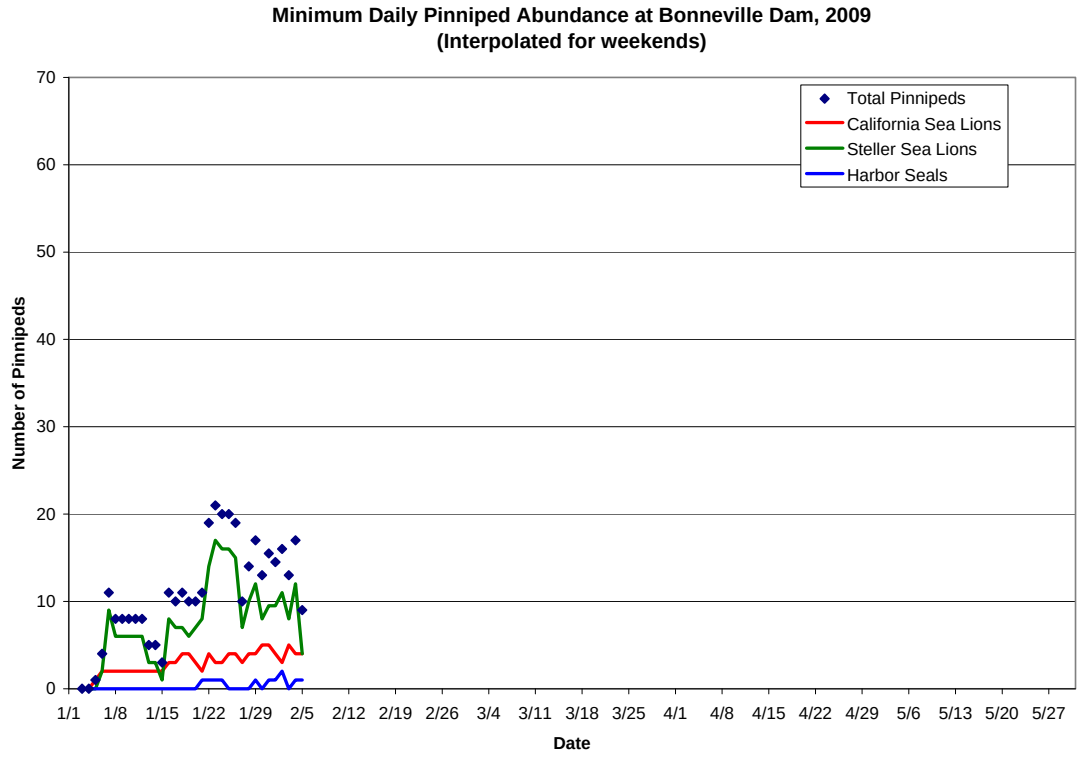

Figure 3. Major prey species taken by Pinniped species at Bonneville Dam, 2009.

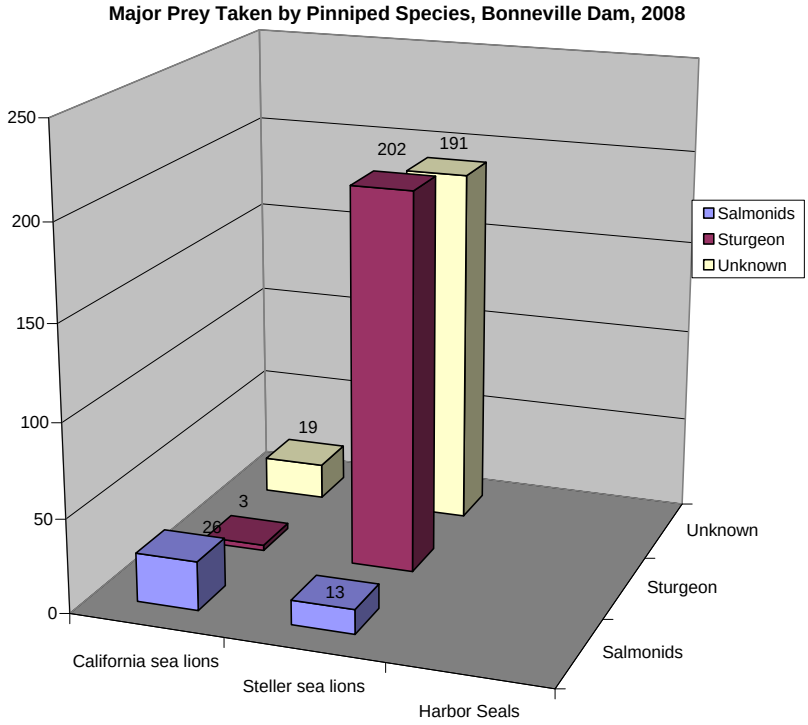

Figure 4. Daily cumulative sturgeon catch at Bonneville Dam, 2006-2009. All data unexpanded.

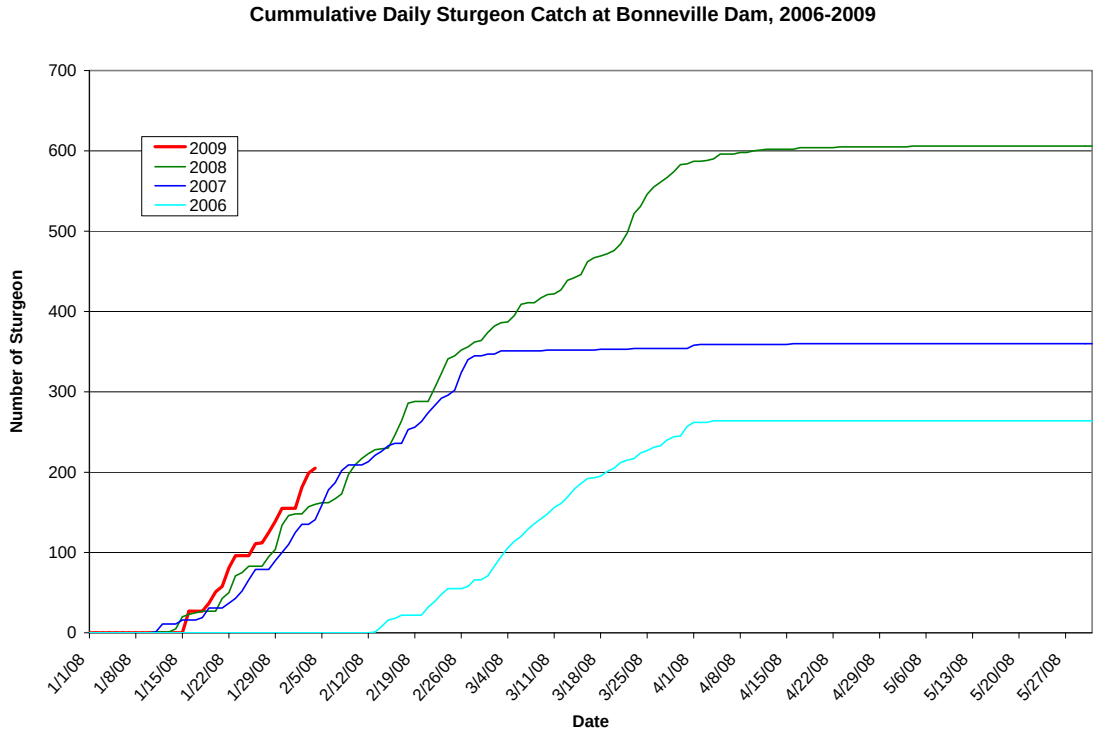

Figure 5. Major prey species taken by Pinnipeds by location, 2009.