

## **Bonneville Minority Report**

### **By Sharon Young**

#### **Introduction**

In 1994, the Marine Mammal Protection Act (MMPA) was re-authorized and include a new section, Section 120, which allows the Secretary to authorize the intentional lethal taking of “individually identifiable pinnipeds which are having a significant negative impact on the decline or recovery of salmonid fishery stocks” which are, or the Secretary finds are approaching threatened or endangered species status. [16 U.S.C. §1389 120 (b)(1)] In its deliberations, a Pinniped-Fishery Interaction Task Force (the task force) is required to consider a number of factors, which were outlined on page 2 of the task force report.

In the Congressional Committee Report accompanying the 1994 Amendments, after acknowledging that pinniped predation may be having a significant impact on stocks in some instances, the Committee expressly recognized that “a variety of factors may be contributing to the declines of these stocks and intends that the current levels of protection afforded to seals and sea lions under the Act should not be lifted without first giving careful consideration to other reasons for the decline.” H.R. Rep. No. 439, 103<sup>rd</sup> Cong. (1994).

We do not believe that the situation at Bonneville Dam is appropriate for consideration under Section 120 of the MMPA. The National Marine Fisheries Service (NMFS) should not grant a permit for lethal take of California sea lions in the Columbia River.

#### **The Issue of Significant Negative Impact**

As part of its deliberations, the task force requested and was given information beyond that provided by the states in their initial application. This information demonstrated that, indeed, sea lions in the Columbia River are eating salmon and it documented predation rates observed near the Bonneville Dam approaching 4% of the fish passing through the Dam in some years. Some of these fish are from runs listed as endangered or threatened, though as this task force report stipulates, less than half of the fish are from listed stocks. California sea lions are far from the only source of extractive mortality to the fish in the river.

To determine what level of predation may be considered “significant,” we may look to other extractive activities and impacts that the NMFS permits at levels it believes to be sustainable by the fish. An analysis done for the task force by its members from the Columbia River Inter-Tribal Fishery Commission documented that tribal harvest rates ranged from 6% to 10% of the spring Chinook between 2002 and 2006; the years in which the documented rate of pinniped predation ranged from 0.3% to 2.7%. Some of the tribal harvest is for ceremonial purposes, but some of it is sold commercially.

There are additional extractive effects. Despite a specific request, the task force was not provided with information on the impact of ocean intercept fisheries on the spring run stocks. Nonetheless, there is some information available from NMFS to shed light on these impacts. In April 2007, the NMFS published a proposed rule to establish catch accounting requirements for Pacific whiting. (72 FR 17469). This proposed rule stipulated that a 1999 biological opinion defined a permissible incidental take threshold for the whiting fishery of 11,000 Chinook. Although this level has been exceeded in some years, it averages 7,300 Chinook per year over the past 15 years. The bycatch affects a number of runs including the Snake River spring/summer runs and spring runs in the lower and upper Columbia and Willamette Rivers., in a 2005 report on Observed and Estimated Bycatch of Salmon in the 2002-2004 West Coast Limited-Entry Trawl Fisheries for Groundfish, the NMFS estimated that during what they called the summer (defined as May to October), over 5,000 Chinook were caught between 2002-2004 (the most recent data provided). Although the paper did not specify months or stocks, we may presume that this fishery also captures fish from these spring run Chinook. These numbers should be considered in light of a documented pinniped take at the Dam of 3,000 fish.

More disturbing, in terms of contribution to decline and recovery, is the bycatch of these salmon in the Alaskan trawl fisheries. In its comments on the initial application by the states, The HSUS cited a NMFS Biological Opinion which found that groundfish fisheries in Alaska are documented to incidentally capture Upper Willamette River Chinook, Lower Columbia River Chinook and Upper Columbia River spring Chinook. Between 2001 and 2005, they took 237,594 Chinook of various stocks. A total of 93,624 were taken in the Bering Sea Aleutian Islands trawl fishery alone. NMFS estimated that, after listing, ocean harvest rates of listed salmon from the Columbia and Snake Rivers averaged 11.5 percent in 1995 and 23 percent in 1996, the most recent years for which estimates were given. NMFS also concluded that “ocean fisheries pose a significant threat to salmon, even small ocean harvests of adult salmon can significantly reduce a salmon population’s likelihood of surviving and recovering in the wild. Nevertheless, threatened and endangered salmon are caught in groundfish fisheries off Alaska, Washington, Oregon and California.” (Endangered Species Act, Section 7 Consultation, Biological Opinion on the Authorization of the BSAI and GOA Groundfish Fishery Management Plan. NOAA-NMFS. Approved by Don Knowles. Nov. 30. 2000. p. 107 et seq.)

We do not find support that the level of predation by pinnipeds is “significant” when contrasted to the much higher levels of removal that NMFS considers acceptable for incidental take discussed above and the intentional capture of fish by tribal, sport and commercial in-river fishermen, which is discussed further below.

### **Predation as a Factor in the Decline or Recovery of the Fish**

The Section 120 application process was largely intended to address predation that occurs on spring runs of Chinook salmon. Material provided to the task force allowed the task force to compare the decline and/or recovery of salmon stocks in the spring that are

potentially affected by predation to the decline and/or recovery of salmon stocks in the fall which are not subject to predation because sea lions are not present in the river during that time of year. A chart entitled “Total Annual Salmonid Counts at Bonneville Dam 1988-2007,” shows similar run trajectories for both fall and spring run Chinook. That is, both the fall and spring runs show fluctuations in their populations that spike and fall in similar time frames and the run sizes in 2006 for both runs are not substantially different from their starting points in 1988. In addressing the difference between recovery trends of fall and spring run salmon, a memo to the task force from Guy Norman of WDFW states “The difference in status could not be attributed to pinniped predation.”

A Biological Assessment dated August 2007 assessed the “Effects of Federal Columbia River Power System and Mainstem Effects of Other Tributary Action on Anadromous Salmonid Species Listed under the Endangered Species Act” (BA) The portion of the BA that addressed the Upper Columbia River Spring Chinook Salmon ESU, assessed the status of the ESU and key limiting factors. The ESU is stated to have a similar life history to the fall-run Chinook salmon and the BA found that there was a 38% improvement in the return of natural adult spawners; and, although some portions of the ESU have declined between 2000 and 2003, others (e.g., the Entiat run) have slightly increased. With regard to limiting factors for this spring run, the BA states that *juvenile* fish mortality is “the most important area where improvements might be made to benefit this ESU.” It further states that “hatchery practices [are] the second most important limiting factor affecting this ESU.” Other human impacts addressed included direct and latent mortality due to hydropower dams which was assessed at 30-35 percent; habitat effects in tributaries and estuaries ranging from 26-49 percent with latent mortality included; and direct human harvest. The BA estimates harvest rates at an average of 8%, but since 2001 they have been as high at 11% of the run. Again, although NMFS and the states have permitted this rate of harvest, the rate contrasts with a lower rate of pinniped predation of less than 4%. The BA states that “the estimated portion of the human impact attributable to combined Tribal and non-Tribal harvest effects for each population ranges from 42 to 1%.” In assessing predation, it simply states “predation has been noted as a factor limiting fish survival at mainstem reservoirs and in the Columbia estuary.” In its later and more thorough discussion of predation, the BA focuses *entirely* on avian and piscivorous predation (primarily northern pikeminnow). Pinniped predation is not identified as having an attributable effect on the decline or recovery of the ESU. [BA at 8-4]

The chapter of the BA dealing with effects on Snake River Spring and Summer Chinook that migrate past the dams during the same period noted that “[a]ll populations in the ESU show increasing or steady population growth trends in the 1990-recent period.” Key limiting factors were notes as direct and latent hydro-related mortality of smolts; harvest rates that vary between “5.5 percent and 17 percent depending on run strength,” and the “estimated portion of the human impact attributable to combined Tribal and non-Tribal harvest effects is 37% to 69%. If latent mortality is omitted, the range associated with combined harvest impacts is 14-15%.” (BA at 5-4) Again, this permitted level of extraction is substantially higher than the predation rate for pinnipeds and the discussion

of impacts of predation on this ESU is confined to a discussion of impacts from avian and piscivorous predation.

In sum, information provided to the task force and/or available from NMFS does not support a finding that pinniped predation is having a significant negative impact on the decline or recovery of spring run salmon in the Columbia. Indeed the fact that there is a documented take of 3,000 fish (less than 4% of the runs) pales in comparison to permitted (and largely unmitigated) incidental take of the salmon by ocean intercept fisheries. Even if predation is compared solely to the allowed in-stream capture of fish from the ESU, both native and sport fishermen take more fish than the pinnipeds. The level of human extraction for personal use and commercial sale is presumably not considered “significant” in terms of its impact on the decline or recovery of the fish or else the NMFS and the states would not permit it. Thus it is not clear why a lower rate of predation by pinnipeds would be considered a significant level.

### **Lethal Taking Will Not Be Successful**

The task force majority report itself admits that the number of pinnipeds that eat salmon is enormous. Although the states requested an annual lethal take of 1% of the Potential Biological Removal (PBR) of California sea lions, which translates to approximately 85 sea lions per year, far more have been identified as involved in predation, and state representatives to the task force acknowledged that 1% was not chosen because it had bearing on the predation, but because it would have limited impact on the stock of California sea lions. The majority report of the task force acknowledges that 271 individual sea lions have been identified as eating fish. Of these, 151 are considered “highly identifiable.” The states have variously estimated that there are 1,000-2,000 sea lions between the mouth of the river and the Bonneville Dam who may themselves be eating some of the salmon as they pass. The task force majority report also acknowledges that sea lions seen at the Dam travel repeatedly down river and back and are thus any of them are capable of leading others to the site. Government representatives on the task force have acknowledged that if animals are removed, others quickly fill into the area vacated.

Sea lions following fish upstream on the Columbia has occurred for over a decade. Far from resolving the predation, killing sea lions at the Dam will only provide a vacated foraging niche for other remaining sea lions to exploit. This is not the situation envisioned when Section 120 was put in the Act. This section of the Act was intended to address situations in which a few animals have developed a novel foraging habit that is having a significant negative impact on endangered or threatened fish, such that if they can be eliminated, their deaths will appreciably assist recovery. That is not the situation at Bonneville Dam.

### **Conclusion**

It may be frustrating for fishermen and managers to watch sea lions eating salmon, but their predation is not having a significant negative impact. Other sources of mortality

contribute far greater to the status of the fish. Human extractive activities, whose impacts NMFS permits, are responsible for far more mortality than are sea lions. The House Committee stated in its 1994 report that it did not intend for protections to be lifted without careful consideration being given to other contributors to declines that might be mitigated. Indeed, impacts from extractive sources (largely fisheries) should be mitigated before NMFS considers killing natural predators whose deaths will not appreciably reduce predation because others of the thousand or so sea lions in the river will only fill the vacated foraging niche.

The NMFS must not permit the intentional shooting of sea lions in the river. It will not appreciably help the fish, which is the purpose of Section 120, it will merely waste the lives of the sea lions to no purpose.