

Killing Pinnipeds to Protect Fish: Solution or Sophistry?

Pacific salmonids are facing a crisis. Scientists, conservation groups and fishermen alike have advocated for action to preserve native stocks. "The fish can't wait", we hear time and again. Indeed they need immediate and meaningful action. Fish stocks all along the Pacific northwest have been declining for much of this century. In its review of the status of over 214 stocks of naturally-spawning salmon (Nehlsen et. A.l 1991), members of the American Fisheries Society's (AFS) Endangered Species Committee, chronicled the precarious situation for 101 stocks at high risk of extinction, 58 at moderate risk of extinction, 54 of special concern and one (1) classified at that time as threatened under the Endangered Species Act. In this review they state that "[t]he decline in native salmon, steelhead and sea-run cutthroat populations has resulted from habitat loss and damage, and inadequate passage and flows caused by hydropower, agriculture, logging, and other developments; over fishing, primarily of weaker stocks in mixed-stock fisheries; and negative interactions with other fishes, including nonnative hatchery salmon and steelhead. While some attempts at remedying these threats have been made, they have not been enough to prevent the broad decline of stocks along the West Coast. A new paradigm that advances habitat restoration and ecosystem function rather than hatchery production is needed for many of these stocks to survive and prosper into the next century." This is a clear and compelling statement of the problem and a concise summary of the obvious, if difficult solution. As Rolland Schmitt, Assistant Administrator for Fisheries at the National Marine Fisheries Service, said in his opening address to this meeting of the AFS : "It's the habitat, stupid." Yet habitat issues have gone largely unaddressed.

A series of papers was recently published in the journal *Conservation Biology*, addressing the stock structure, life history and status of endangered salmonids; factors contributing to their decline; and possibilities for the future. The final paper in the compendium (Black, 1994), recounted failed fishery policy in California's Sacramento River. While this article focused on a single river, its denunciation of steps taken to mitigate problems facing the fish might be applied to virtually all rivers and stocks of concern. The author points to the reliance on easy technological solutions that fail to solve complex problems. He states "Pure technical solutions are frequently sought to avoid making other more controversial choices. Instead of opening up debate to invite political-ecological response, public institutions adopt narrowly conceived instrumental mitigations. By abandoning ecology for engineering, environmental policy becomes self-frustrating. I call this selection of narrow, instrumental ends 'serialistic policies' after processes that occur in a series, rank or row. While all institutional policies build upon one another in an internally consistent fashion, serialistic policy exhibits certain unique traits that culminate in a unified negative effect." He then chronicles the failure to adopt solutions that address root causes of fishery decline (e.g impeded passage, mining, agriculture, deforestation). Managers instead seek solutions that attack the symptoms that accompany the causes of the decline (e.g introducing hatchery fish, erecting ladders, depositing gravel in badly silted spawning beds, barging smolt past downstream migratory obstacles, etc.). Black states that these serialistic policies "engender the illusion that calamitous, greed-driven ecological practices that laid waste to rivers in the first

place may be ignored. However, the cascade of mitigations [do] pay off in one sense. These fish rescue operations staved off political constituencies such as native peoples, commercial and sport fishing groups, conservationists and members of the scientific community from mobilizing to preserve wild salmon."

Indeed, fish stocks continue to decline, and frustrated managers continue to propose band-aid solutions to a coast-wide hemorrhage. As has been the case with all of the previous serialistic solutions that have been applied, proposals to shoot seals and sea lions miss the point. It is meaningless to propose one more simplistic technical solution that does not address the roots of the problem. Without addressing habitat issues, killing pinnipeds cannot save the fish. It will simply divert attention from the critical need to provide long-term, politically difficult, but meaningful solutions to the problems facing anadromous fish. As long as hatcheries continue to pour out non-native fish into important spawning rivers to compete with declining native stocks (e.g. the Walla-Walla and Columbia Rivers); as long as forestry practices continue to devastate spawning basins (e.g. Euchre and Pistol Rivers in Oregon); as long as water diversions continue to rob rivers of sufficient, high-quality water (e.g. the Sacramento and Columbia River basins), we cannot point the finger of blame at sea lions and expect that killing them will solve problems caused by decades of inadequate management.

In fact, killing pinnipeds may be worse than doing nothing. Permitting them to be shot gives the illusion that something is being done to protect fish and stop the declines, when in fact no meaningful action is being taken to protect and restore vital habitat.

A variety of strategies are necessary to save the fish. As a start, the fish need recovery plans. In the longer-term: River flows need to be reallocated to increase natural spawning and fish passage, with the needs of native aquatic species incorporated into management schemes. Federal regulation of hatchery programs is needed to direct propagation facilities to preserve existing genetic diversity of wild stocks and curtail or reorganize inter-basin transfers and artificial propagation. The National Marine Fisheries Service and the Fish and Wildlife Service should renegotiate their respective roles to protect anadromous species under the Endangered Species Act to assure shared and consistent management strategies to preserve fish stocks. Long-term monitoring is needed to track the status of all anadromous fish populations, and answer questions of stock definition and life history that can lead to devising ways to protect habitat from effects of logging, agriculture and other developments that have devastated fish stocks. The public must be engaged in a commitment to address the habitat concerns that affect fish, and must be invested in their recovery. Just as the recovery of seals and sea lions from decades of overexploitation can be seen as a triumph of public will, a similar will is necessary to save the diverse native salmonids along our coasts. Hydro-electric, timber, agricultural and other powerful segments of the economy must be confronted, and we must work with them to forge a unified commitment to make the changes necessary to preserve and restore important habitat for salmonids. Additional monitoring and modeling of the role of pinnipeds in their ecosystem is warranted. Several speakers noted that salmon are only a small part of pinniped diets, and that predators of salmon often make up a much larger

proportion of their diet. The role of pinnipeds in suppressing fish predation may be an important one in the survival of the salmon.

The fish cannot afford to wait. Decades of failed management must end. Meaningful and substantive action must be taken now. Shooting pinnipeds appears to be just one more in a series of simplistic technological proposals that are ultimately doomed to failure. The only difference between shooting pinnipeds and the many serialistic solutions that have previously failed to halt declines is that this time we are proposing to waste not only time and money, but lives as well.

Literature Cited

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