

### Oregon Ruling Casts Doubt on Threatened Status of California Salmon and Steelhead

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An Oregon District Court recently ruled that the National Marine Fisheries Service ("NMFS") could not legally distinguish between hatchery salmon and wild salmon in determining whether a given population of salmon was threatened under the Endangered Species Act ("ESA"). The Oregon District Court's decision in *Alsea Valley Alliance v. Donald L. Evans*, USDC Or., Case No. 99-6265-HO, invalidated NMFS' listing decision for the Oregon coast coho salmon, but it raises questions about all salmon and steelhead listings under the ESA where wild fish populations exist side-by-side with genetically indistinguishable hatchery fish.

The Oregon court ruled that NMFS violated the Administrative Procedure Act by arbitrarily distinguishing between wild coho salmon, which were protected under the listing, and hatchery raised coho, which were not. While NMFS properly concluded that Oregon coastal coho constituted a distinct population segment (referred to by NMFS as an Evolutionarily Significant Unit or "ESU"), NMFS improperly relied on a hatchery policy that concluded that hatchery fish were not "deemed 'essential' to recovery" of the species. To qualify as an ESU, a salmon or steelhead stock must be reproductively isolated from other stocks and must represent an important component in the evolutionary legacy of the species. Geography and genetics are proper factors to use in determining a distinct population segment, but listing distinctions below that level of analysis are not permitted under the ESA. The opinion stated: "Once NMFS determined that hatchery spawned coho and naturally spawned coho were part of the same DPS/ESU, the listing decision should have been made without further distinctions between members of the same DPS/ESU."

The court explained that hatchery spawned coho and naturally spawned coho are genetically identical, share the same rivers, habitat and seasonal runs, and interbreed when mature. Some of the hatchery fish breed with wild fish, and NMFS considers the offspring of hatchery fish and wild fish "naturally spawned." Those offspring are thus entitled to protection under the ESA. The offspring of hatchery and wild fish may account for as much as 87% of the naturally spawning coho within the Oregon Coast ESU. The opinion stated: "Thus, the NMFS listing decision creates the unusual circumstance of two genetically identical coho salmon swimming side-by-side in the same stream, but only one receives ESA protection while the other does not. This distinction is arbitrary."

The Pacific Legal Foundation, which brought the suit on behalf of the Alsea Valley Alliance and an Alsea River fishing guide dependent on the hatchery fish for his guiding business, called the decision a victory of common sense over junk science, apparently in reference to NMFS' policy of distinguishing between genetically identical fish. A particular focus of the plaintiffs' wrath was the Oregon Department of Fish and Wildlife's practice of clubbing to death hatchery salmon in order to protect the wild fish. That practice was captured on a video in 1998.

Apart from its legal implications, the decision undermines a major assumption underlying salmon and steelhead recovery efforts over the last few years — that distinct populations of salmon and steelhead can be preserved only by insuring the viability of the wild stocks of salmon and steelhead. Whether or not a purely genetic distinction exists between wild fish and hatchery spawned fish, fisheries biologists assert that there are differences between the two. Because hatchery-spawned fish are raised in an artificial setting (concrete pens), they do not behave like wild fish. They are more prone to disease, less wary of predators and less able to adapt in the wild. In essence, they are no longer the products of natural selection. Over the course of several generations, a run of salmon or steelhead can become "domesticated" and the overall fitness of the gene pool declines. In some instances, hatchery propagated fish may prey on wild fish, further reducing the likelihood that the wild population will survive. Hatchery practices are cited by NMFS as one of the reasons for listing salmon and steelhead as threatened under the ESA. 65 Fed. Reg. 42422 (July 10, 2000).

Consequently, recent conservation efforts have focused on preserving the wild stock as a means of safeguarding the genetic vigor of a run. Those efforts include reevaluating hatchery programs (as with the Alsea River), removing small dams and weirs and otherwise improving access to traditional migration and spawning habitat, regulating stream flows and promoting long-term watershed improvements through enhanced water quality and improved habitat conditions. Improved monitoring through Section 7 and Section 10 consultations has also helped.

In practice, hatchery fish are distinguishable from wild fish because hatchery workers clip the adipose fin of hatchery fish. Oregon fishermen are required to identify wild unclipped fish from hatchery fish, and can only harvest those fish which have been clipped. In California, hatchery fish may be both clipped and tagged to distinguish them from wild stock.

For now, the ruling has no direct impact on California ESUs. The ruling invalidated only the listing decision for the Oregon coast coho. However, the ruling potentially challenges the legal foundations for all salmon and steelhead listing decisions in California, to the extent those decisions were based on NMFS' Hatchery Policy. If both wild and hatchery fish must be counted in determining whether a given population is threatened, some or all salmon and steelhead ESUs may no longer be threatened and may be delisted. Those fish may still be protected under state laws, however, and sport fishing regulations may continue to distinguish between wild and hatchery spawned fish.

NMFS may respond to the ruling by conducting new status reviews and determining that all fish in a given ESU require protection, wild or not. In that event, rather than put in place a blanket prohibition against all harvest practices, NMFS may work with the California Department of Fish and Game to authorize fishing activities under the ESA's 4(d) rule. The 4(d) rule for salmon and steelhead authorizes the take of threatened fish while conducting certain activities, including fishery harvest activities, provided those activities comply with strict NMFS-approved management plans. NMFS may also authorize take pursuant to Section 10 of the ESA, provided a Habitat Conservation Plan is first approved by NMFS.

Although Oregon Governor John Kitzhaber has asked the federal government to appeal the ruling, it is not clear at this time whether the September 10 decision will be challenged, either by the federal government or private groups.

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