
Steelhead trout. NOAA photo.

Salmonids present a challenge for Endangered Species Act implementation, because they aren't neatly divided into completely separate reproductive units, the way we expect species to be. Conservation advocates have long argued that behavior should be as important in genetics in deciding which salmonid groups merit protection. The National Marine Fisheries Service and U.S. Fish and Wildlife Service have struggled to decide whether they should protect interbreeding fish that nonetheless remain distinguishable, and if so how. A decision issued by the Ninth Circuit on Friday correctly upholds the agencies' current approach.

The issue in the case was whether NMFS had the authority to treat Central Valley steelhead as distinct from rainbow trout in deciding whether the steelhead merited ESA protection. The ESA requires listing of "species" that are endangered (currently in danger of extinction) or threatened (likely to become endangered in the foreseeable future). It defines the term "species" as including "any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature." 16 U.S.C. § 1532(16). The statute does not further define "distinct population segment" (often referred to in shorthand as DPS).

Steelhead and rainbow trout are both classified in the biological species *Onchorhynchus mykiss*. They are capable of interbreeding, but their appearance, physiology, and behavior are remarkably different. Steelhead are anadromous; after their birth in fresh water streams they migrate to the sea, along the way undergoing physiological adaptations that allow them to survive in salt water. Rainbow trout, on the other hand, remain in their freshwater natal streams, don't grow as big as steelhead, and don't go through the physiological changes that go along with migration to salt water.

When it first looked at the relationship between steelhead and rainbow trout, NMFS decided to put interbreeding populations of the two in the same DPS. Recognizing that steelhead are declining but rainbow trout remain abundant, however, NMFS initially listed only the steelhead. That strategy ran into trouble in 2001, when a federal district court ruled that the ESA did not allow for listing of a partial DPS. Alsea Valley Alliance v. Evans, 161 F. Supp. 2d 1154 (D. Or. 2001). That meant that NMFS faced the choice of redrawing salmonid DPSs, removing protection of the steelhead, or adding rainbow trout to the protected unit.

NMFS decided to redraw the DPSs. That could have been done by reconsidering its policy for identifying DPSs of Pacific salmonids (which it calls Evolutionary Significant Units or ESUs), which currently emphasizes reproductive isolation. But NMFS decided to take a different approach. It decided that the ESU policy should not apply to steelhead. Instead, NMFS applied a more general DPS policy it had developed in conjunction with the Fish and Wildlife Service (which is responsible for terrestrial species). The DPS policy describes the criteria for separation more broadly, requiring a finding of "marked separation" rather than of substantial reproductive isolation. Applying that policy, NMFS determined that steelhead should be put in a different DPS than rainbow trout, even when the two interbreed, based on the physical, physiological, ecological, and behavioral differences. That decision allowed it to list the Central Valley steelhead, without listing co-located rainbow trout.

In this litigation, a group of Central Valley irrigation districts challenged the steelhead listing, arguing that steelhead could not be treated separately from rainbow trout (the implication being that if the two were considered together the abundance of the rainbow trout would preclude listing). The trial court ruled for the government, and the Ninth Circuit has now affirmed.

The Ninth Circuit's decision is correct on the law. The doctrine known as *Chevron* deference (from its origin in the Supreme Court's decision in Chevron U.S.A. v. NRDC, 467 U.S. 837 (1984)) requires that courts uphold reasonable agency interpretations of ambiguous statutes. The ESA does not specify how DPSs are to be identified. That leaves the implementing agencies some room to define the term, including defining it somewhat differently for different types of species.

Treating steelhead and rainbow trout as distinct is reasonable, because it serves the purpose of the ESA, which is to conserve species for their "esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people." 16 U.S.C. § 1531. According to an outside expert review conducted for NMFS in 2005, resident populations of *O. mykiss* (in other words, rainbow trout) can be established easily from steelhead, but the reverse is not true. The trait of anadromy in *O. mykiss* can only be effectively protected by protecting steelhead. Because that trait is valuable in many of the ways the ESA recognizes, it makes sense to distinguish between steelhead and rainbow trout.

As I've argued before, NMFS should revise its ESU policy so that it can consider these same sorts of differences between hatchery and wild-spawned salmonids.

This decision should help shore up the agency’s confidence that such a revision would survive judicial review.