



FRIENDS OF THE EEL RIVER

Working for the recovery of our Wild & Scenic River, its fisheries and communities.

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For Immediate Release

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Friends of the Eel River Ask State, Feds to Protect NW California Summer Steelhead

(Eureka) Friends of the Eel River have formally petitioned state and federal fisheries agencies to protect the summer steelhead of Northwestern California rivers under their respective Endangered Species Acts. These unique, and increasingly rare, fish are clearly distinct from more numerous, and less vulnerable, winter-run steelhead.¹

“Given their critical conservation status, North Coast summer steelhead should be immediately listed as endangered,” said Friends of the Eel River Conservation Director Scott Greacen.

The differences between summer steelhead and winter-run fish are stark. Summer steelhead generally enter freshwater in spring, spend the dry season in coldwater refugia, then spawn further up their watersheds than any other anadromous (sea-run) fish. Summer steelhead include the largest adults of any steelhead and the strongest swimmers and highest-leaping fish of any salmonid. Unlike winter steelhead, summer steelhead enter freshwater as “bright” fish, with undeveloped gonads; they prepare to spawn over the summer while fasting, subsisting on a much higher level of body fat than winter-run steelhead.

Thanks to significant technology-driven advances in genetic science, recently published studies have demonstrated that summer steelhead’s physiological and behavioral adaptations are the result of a specific genetic difference with winter steelhead.² As well, this research shows that protection schemes which lump summer and winter run steelhead together, as the federal listing for Northern California steelhead now does, lead to the irrevocable loss of summer-run fish.³

¹ Steelhead are the anadromous form of *Oncorhynchus mykiss irideus*. The same fish, when they do not run to saltwater but remain in freshwater their entire lives, are known as rainbow trout. However, the “*Oncorhynchus*” genus tells us that biologists now group these fish with other salmon species like *O. tshawytscha* (Chinook, or king, salmon) and *O. kisutch* (coho, or silver, salmon).

² See Prince, Daniel J, Sean M O’Rourke, Tasha Q Thompson, Omar A Ali, Hanna S Lyman, Ismail K Saglam, Thomas J Hotaling, Adrian P Spidle, and Michael R Miller. 2017. “The Evolutionary Basis of Premature Migration in Pacific Salmon Highlights the Utility of Genomics for Informing Conservation.” *Science Advances*, August (<http://advances.sciencemag.org/content/3/8/e1603198>)

³ See Thompson, Tasha Q, Renee M Bellinger, Sean M O’Rourke, Daniel J Prince, Alexander E Stevenson, Antonia T Rodrigues, Matthew R Sloat, Camilla F Speller, Dongya Y Yang, Virginia L Butler, Michael A Banks, Michael R Miller. 2018. “Anthropogenic habitat alteration leads to rapid

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Under the federal Endangered Species Act, these studies clearly constitute the “best available science,” which must be taken into account in making decisions about the protection of threatened and endangered species.

“Science now confirms what tradition and experience have always told us: summer steelhead are truly different from their winter run cousins,” said Greacen. “Once we recognize this, it’s clear that the conservation status of summer steelhead is absolutely dire. There are probably fewer than a thousand adults spawning each year across their entire range, from Redwood Creek to the Mattole River, including the largest known populations in the Middle Fork Eel and Van Duzen Rivers. That’s why we’ve asked the federal National Marine Fisheries Service and the California Department of Fish and Wildlife to list summer steelhead as endangered under both the state and federal Endangered Species Acts.”

Friends of the Eel River are particularly concerned by the Federal Energy Regulatory Commission’s (FERC) current effort to relicense PG&E’s Scott Dam, a century-old, 130’ concrete dam that completely blocks fish passage to hundreds of miles of steelhead spawning habitat in the Upper Mainstem Eel River basin. The National Marine Fisheries Service notes in its 2016 Coastal Multi-Species Recovery Plan that the “Upper Mainstem Eel River steelhead population was once the longest-migrating population in the entire (regional population). Restoring access to historical habitat above Scott Dam is essential to recovering this population.” It also notes that “Scott Dam currently blocks access to 99 percent of the potential habitat available to this steelhead population.”

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Additional Resources

PETITIONS:

California: <https://tinyurl.com/ydcdf5w>

Federal: <https://tinyurl.com/y7bc9wnt>

PICTURE:

A public domain **photo** (to be credited to Cal DFW’s Shaun Thompson) of a summer steelhead sheltering in a cold pool on the Middle Fork Eel River is available here:

<https://tinyurl.com/yd3qdley>

DETAILS:

An extensive 2017 **report for California Trout** by Dr Peter Moyle et al on the status of salmonids across California is a key source for the petitions. The full report (CAUTION link is to 8.4 MB .pdf file) is available here: <https://tinyurl.com/y8abgse4>

loss of adaptive variation and restoration potential in wild salmon populations.” bioRxiv. (<https://www.biorxiv.org/content/early/2018/07/06/310714>)