Fish, Aquatic Ecosystem Response

Trout in small forested streams

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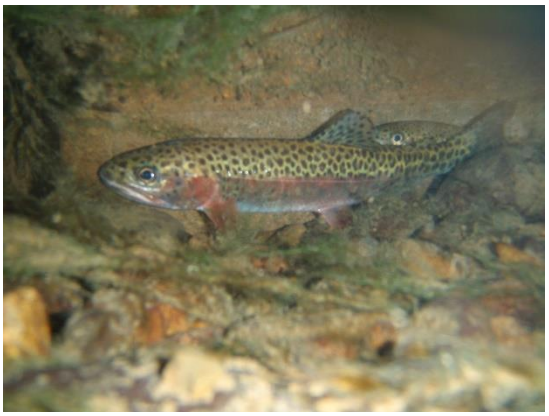
Much of the current forest harvest in the Pacific Northwest occurs around small headwater streams located at and above the upper distribution of fish. It is at this nexus that the focus of questions for contemporary forest practices and responses of fisheries meet. Our work incorporates evidence from empirical studies, semi-natural experiments, eDNA, and mechanistic models based heavily on field data to address questions around forest-fish interactions. We compare eDNA to traditional sampling approaches to identify the end-of-fish. We highlight the importance of instream cover, shade, and instream pools as habitat for Coastal Cutthroat Trout during seasonal low flow. At the Trask River watershed, we find that downstream effects of forest harvest on fish are minimal. This work helps provide critical information for managers to ensure habitat complexity that will allow trout to continue to swim in many streams across the region.



Coastal Cutthroat Trout are the dominant fish at the upper extent of small streams in the Pacific Northwest. Trout shown here are using cover. Photo by Brooke Penaluna.