

Coastal Cutthroat Habitat Restoration Project

State(s): Washington

Managing Agency/Organization: Hood Canal Salmon Enhancement Group (HCSEG)

Type of Organization: Nonprofit

Project Status: Ongoing

Project type: WNTI Project

Project action(s): Population assessment, Habitat Restoration, Monitoring, Education/Outreach.

Trout species benefitted: Coastal Cutthroat Trout

Population: Hood Canal

Project summary: The Coastal Cutthroat Habitat Restoration Project will be carried out in a three phase process, starting with outreach presentations, moving to genetic data collection, and finishing with precise habitat restoration efforts. The first phase of the project will be a series of outreach presentations at five local fly fishing club meetings and angling organizations. During initial presentations, promotion of the second event will occur, inviting anglers from all local clubs and groups to join in the collection of genetic and life history data of Coastal Cutthroat Trout (CCT).

Phase two involves genetic data collection events involving both professional fish biologists and citizen scientists that will take place quarterly throughout marine waters of Hood Canal. HCSEG Staff, biologists, local fishing guides and interested anglers will gather at a sample site to conduct hook and line sampling and beach seining to collect genetic samples, in the form of caudal fin clips. Samples will later be analyzed in order to assign fish caught in the marine environment to their natal tributary. Results from genetic stock assignment will allow identification of streams that are underrepresented in sea run CCT catch, informing future habitat restoration work focused on species that depend on extended freshwater rearing (e.g. Coastal Cutthroat Trout, steelhead and Coho salmon).

The final phase involves the selection of restoration sites chosen in watersheds likely to provide the greatest benefit to these species that depend on freshwater rearing but were underrepresented in catch. Anglers and project partners involved in genetic analysis will also participate in the habitat restoration events. It is anticipated that up to 3 sites will be chosen for small scale restoration through riparian plantings with approximately 2,000 plants to be planted throughout the 3 sites, providing critical native fish habitat. Native plantings provide ecosystem services: increasing stream shading, moderating stream water temperatures, improving bank stability, intercepting and infiltrating runoff and associated pollutants, providing better water quality, increasing detrital inputs to feed aquatic invertebrate populations and long term large woody debris recruitment.

Problem the Project Addresses: A range-wide Coastal Cutthroat Trout (*Onchorhynchus clarkii clarkia*) (CCT) assessment was identified as a priority data gap by the NFHP 2010 national assessment team and also by WNTI, co-funded by the Pacific States Marine Fisheries Commission and WNTI in 2013 and completed in July 2016. In this project, Pacific States Marine Fisheries Commission and the Coastal Cutthroat Trout Interagency Committee completed a range-wide assessment of CCT. The CCT Interagency Committee and WNTI have identified actions that will become the foundation for coordinated conservation activities for CCT. The assessment addressed four major goals and objectives identified in the amended WNTI Strategic Plan. The primary task was to conduct a geo-referenced assessment of CCT, significantly updating the WNTI species assessment conducted for CCT in 2007. The project has resulted in the following products: 1) a geo-referenced database that integrates existing information with new information collected; 2) analyzed and summarized data from the assessment published as web-based GIS services, and 3) continuation and maintenance of the project's spatial data using online collaborative tools and an [interactive map viewer](#). Ongoing efforts to collect additional data to fill gaps in species' distribution information is a priority for all CCT Interagency Committee partners.

The Coastal Cutthroat Trout Interagency Committee organized and advertised a two day symposium November 7-8, 2018, in Newport, Oregon. WNTI co-sponsored the symposium along with the Pacific States Marine Fisheries Commission through a multi-state grant obtained by WNTI in 2018. Symposium attendance was 85 individuals. The goal of the symposium was to share the results of the range-wide assessment and to bring all partners together to discuss future plans for cooperative conservation of CCT.

Partners:

- Hood Canal Salmon Enhancement Group
- Coastal Cutthroat Coalition
- Washington Department of Fish and Wildlife

- Pacific States Marine Fisheries Commission
- NOAA Fisheries Office of Habitat Conservation
- Western Native Trout Initiative

The project will engage and utilize recreational anglers and licensed guides as partners at each stage. Initially, efforts will be focused on educating individuals about a less understood native trout species, Coastal Cutthroat Trout. Next, citizens will engage with professional biologists to gather genetic samples. Lastly, the same participants will complete the project by planting native plant species in watersheds critical to CCT and other fish species that depend on an extended freshwater rearing phase.

Project Monitoring: Barrier efficacy will be monitored by U. S. Forest Service and Montana Fish Wildlife and Parks employees by means of electrofishing to further assess population genetics and species distribution. The barriers integrity will be monitored by annual inspection at the barrier site. The structure will be cleaned of all debris and inspected for cracks or other structural deficiencies. Future barrier repair, if needed (the structure is anticipated to have a 100yr life span) will be a shared responsibility of the partners (USFS and MT FWP). These responsibilities will be outlined and agreed upon in a signed project participation agreement once the barrier is constructed. The long-term benefits of the project include securing eight stream miles of Wall Creek and protection of the genetic purity of the Wall Creek Westslope cutthroat trout from competition and hybridization with nonnative trout species. Genetic purity would therefore stay above 95% with the success of the fish barrier. Designated reaches will be established to monitor the distribution, abundance, and genetic status of the fish being conserved by this management action.

Funding Source(s): NOAA Fisheries Office of Habitat Conservation

Project cost: \$32,896.66

Start Date: 07/01/2020 **Completion Date:** 3/31/2022

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