

Southern Oregon Coastal Cutthroat Trout

Species Management Unit Description

The Southern Oregon Coastal Cutthroat Trout SMU includes all populations of cutthroat trout inhabiting ocean tributary streams from Elk River south to the Oregon/California border. The Southern Oregon Coastal Cutthroat Trout SMU passed all six interim criteria and its conservation risk classification for this Status Report is “not at risk”.

Existing Populations

The Southern Oregon Coastal Cutthroat Trout SMU in this report is comprised of 12 historical populations (Table 1). Resident, fluvial, and anadromous life-history types are present within the SMU.

It is the professional opinion of the local ODFW biologists (Confer, VanDyke, personal communications) that coastal cutthroat trout are found at least seasonally in virtually 100% of the available habitats for cutthroat trout in each of the 12 populations in the Southern Oregon SMU, verifying that all historical populations continue to exist. Sampling associated with forest practices and salmon or steelhead monitoring has found coastal cutthroat trout in all populations. Fluvial cutthroat trout are confirmed in Middle Rogue, Upper Rogue, and Applegate River populations and are believed to be present in other large river systems. Anadromous cutthroat trout are thought to be present in all Oregon coastal streams that lack an upstream barrier to fish passage near the ocean entrance point (Hooton 1997).

Table 1. Description, status, and life history of Southern Oregon Coastal Cutthroat Trout SMU populations.

Exist	Population	Description	Life-history
Yes	Upper Rogue	Upstream of Gold Ray Dam.	Fluvial/Resident
Yes	Middle Rogue	Illinois River to Gold Ray Dam.	Resident/Fluvial/Anadromous
Yes	Lower Rogue	Mouth to Illinois River.	Resident/Fluvial/Anadromous
Yes	Applegate	Applegate River.	Fluvial/Resident
Yes	Illinois	Illinois River.	Resident/Fluvial/Anadromous
Yes	Elk	Elk River.	Resident/Fluvial/Anadromous
Yes	Euchre	Euchre Creek and coastal tributaries from Elk to Rogue.	Resident/Anadromous
Yes	Hunter	Hunter Creek.	Resident/Fluvial/Anadromous
Yes	Pistol	Pistol River.	Resident/Fluvial/Anadromous
Yes	Coastal Creeks	Coastal Creeks between Rogue River and Chetco River.	Resident/Anadromous
Yes	Chetco	Chetco River.	Resident/Fluvial/Anadromous
Yes	Winchuck	Winchuck River.	Resident/Fluvial/Anadromous

Habitat Use Distribution

Fish presence survey data in association with forest operations and Oregon Plan Western Oregon Rearing Project (WORP) survey data suggests that coastal cutthroat trout are present throughout the Southern Oregon Coastal Cutthroat Trout SMU and are found distributed widely in each major watershed. Since coastal cutthroat trout are rarely the target species in biological studies, we relied on this data and the assessment of other data by local ODFW district biologists (Confer, VanDyke – Rogue Watershed District) to assess populations under this criterion.

It is the professional opinion of local ODFW biologists that all life-history types of coastal cutthroat trout expected are present and widely distributed throughout the entire Southern Oregon SMU (Confer, VanDyke, personal communication). Coast-wide snorkel surveys of pools from randomly selected stream reaches (~1,000 meters) conducted since 1998 have found cutthroat trout (> 90 mm forklength) at over 30% of sites sampled in three of the last five years (WORP) (Figure 1). Sites were chosen from a stream network based on juvenile coho distribution. It is presumed that cutthroat would have been found in almost all reaches if sampling also included non-pool habitat. In 2003-2004 cutthroat were present at 88-95% of non-Rogue basin sites that were chosen from a stream network based on juvenile steelhead distribution (WORP). For sampling within steelhead distribution of the Rogue basin, cutthroat were found at 29-82% of sites (Figure 2). Due to the sampling protocol and the aggressive nature of juvenile steelhead, it is believed these data also underestimate the distribution of coastal cutthroat trout. Based on these patterns of distribution and the professional opinion of the local biologists, all populations passed this criterion, as did the SMU.

Abundance

During various sampling activities, ODFW biologists have found coastal cutthroat trout in virtually every stream within the Southern Oregon SMU, including 21 isolated groups of cutthroat trout above natural barriers that were described in ODFW's 1995 Biennial Report on the Status of Wild Fish in Oregon (Kostow 1995).

To assess the abundance criterion, local ODFW biologists in the Southern Oregon Coastal Cutthroat Trout SMU were asked to review the results of the various sampling efforts that have been conducted over the last ten years to identify those locations within the distribution range of coastal cutthroat trout where abundances were found at critical levels (as defined in the Coastal Cutthroat Trout Assessment Methods section). Very few sites in the SMU could be identified where very few or no cutthroat trout were found. In the few cases where abundances were found to be at critical levels, the location was either near the upper limit of cutthroat distribution in the headwaters of streams where habitat is limited, or in an area where significant steelhead juveniles were present that likely out-competed cutthroat trout for occupation of the habitat. Even including these areas of expected low abundances of coastal cutthroat trout, the proportion of these areas to all areas sampled is still well below the criterion level of >50%. It is the professional opinion of the local ODFW biologists that the sampling efforts reviewed are indicative of the abundance of each coastal cutthroat trout population within the Southern Oregon SMU.

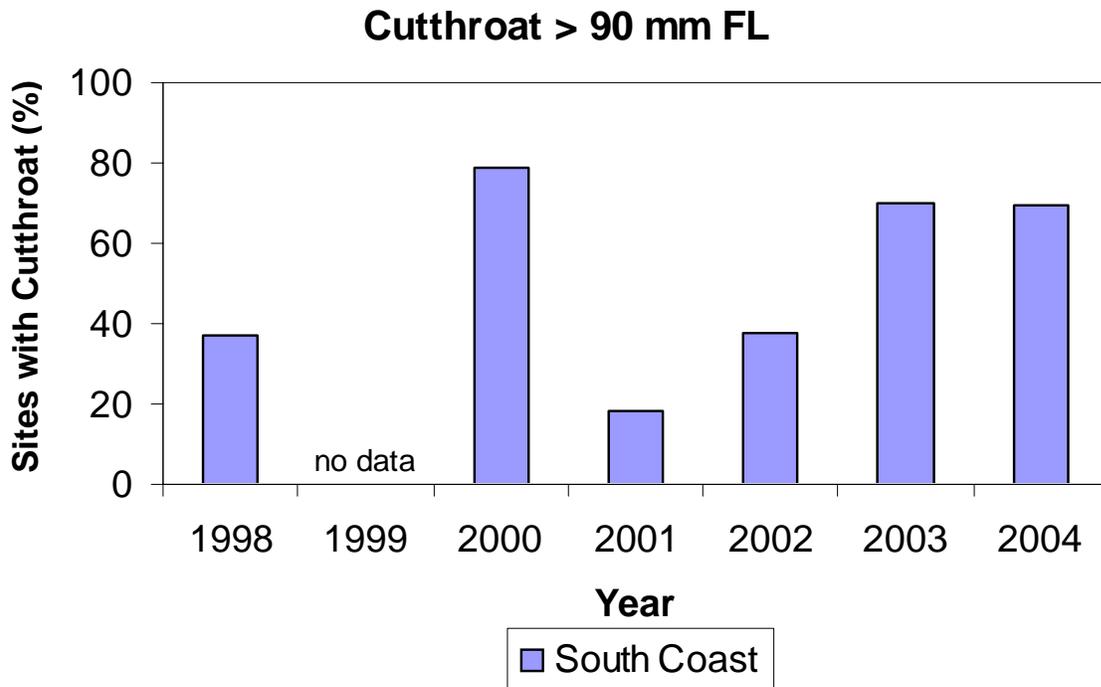


Figure 1. The percent of sites within the Southern Oregon SMU that had at least one cutthroat trout during Western Oregon Rearing Project sampling in juvenile coho habitat. Sites were 1,000 meter stream reaches in which only pools were snorkeled.

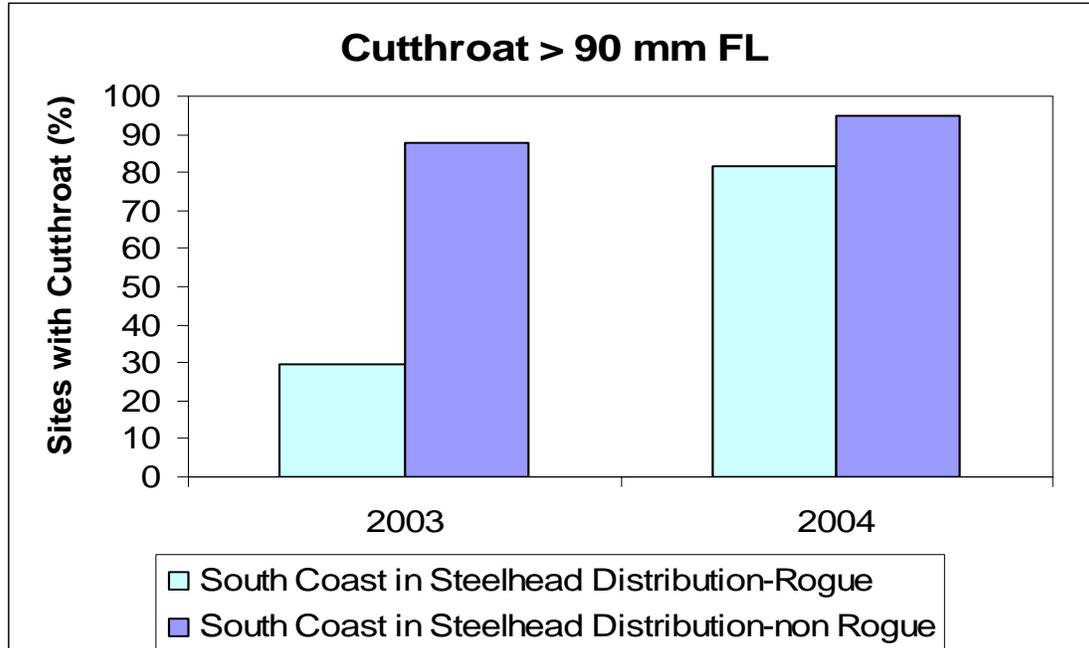


Figure 2. The percent of sites within the Southern Oregon SMU that had at least one cutthroat trout during Western Oregon Rearing Project sampling in juvenile steelhead habitat. Sites were 1,000 meter stream reaches in which only pools were snorkeled.

Sampling throughout the SMU, including areas above barriers, that has looked at cutthroat trout densities has found consistent densities of coastal cutthroat trout. They are thought to be the dominant trout in most headwater tributaries and small streams that directly enter the ocean. In the 1990s, multiple cutthroat trout age classes were found in most locations where resident cutthroat trout existed (Hooton 1997). Local biologists believe the present age class structure has not changed.

ODFW Rogue Watershed District's annual seining efforts in the Chetco, Hunter, Pistol, and Winchuck Rivers have consistently reported anadromous coastal cutthroat trout. Watershed district migrant trap data from Euchre and Hunter creeks, as well as Pistol and Winchuck rivers have also shown relatively consistent numbers of migratory cutthroat trout. The Rogue Watershed District believes the Elk River, Chetco River, and Winchuck River populations are stable, although they may be at somewhat lower levels relative to historical abundance (Confer, personal communication). The relative abundance of coastal cutthroat trout in Hunter Creek is believed to be stable or increasing. The Pistol River population is thought to be stable and healthy. It is the professional opinion of the local ODFW biologists (Confer, VanDyke, personal communications) that the status of these populations is indicative of the status of all Southern Oregon SMU coastal cutthroat trout populations.

The relatively healthy densities of cutthroat trout found throughout the SMU in random and routine sampling suggests all populations of coastal cutthroat trout have been above critical levels in each of the last five years. The stable nature of these densities over the decades that sampling has occurred indicates that the populations have stayed above critical levels for some time. For these reasons, all of the populations passed the abundance criterion. The SMU also passes the criterion.

Productivity

Coastal cutthroat trout are found in almost all stream segments in this SMU. Sampling in conjunction with forestry activities throughout the SMU has found cutthroat in most headwater reaches. Local ODFW biologists have noted that the 21 isolated groups of cutthroat trout above natural barriers that were described by ODFW in 1995 (Kostow 1995) have continued to maintain stable levels over the recent decades that sampling has occurred. All historical life-history strategies continue to be expressed.

ODFW Watershed District biologists in the Southern Oregon Coastal Cutthroat Trout SMU, as stated in the abundance criterion section, have found few streams during various sampling efforts where coastal cutthroat trout are not present in expected densities for the habitat present. This includes streams that have experienced catastrophic events such as fires, droughts, floods, and debris torrents that would likely have reduced or eliminated the abundance of coastal cutthroat trout. Local biologists have identified streams that go dry during the summer months, but have been found to support reasonable densities of cutthroat the following spring. Most areas that have been found with low numbers of cutthroat trout due to a debris torrent have been found to contain reasonable densities of cutthroat a few years after the event. Examples of such resilience in coastal cutthroat trout have been identified in almost every basin by the local biologists (ODFW, Confer, VanDyke, personal communications).

The productivity criterion is intended to assess the ability of population levels to rebuild after experiencing low abundances. The stable level of cutthroat found in most of the populations within the SMU, along with their almost universal distribution, is evidence that these populations fully utilize the available habitat and maintain abundances near capacity. These densities have

been found before and after catastrophic events such as fires, debris torrents, and severe droughts. The fact that stable densities of cutthroat trout are found in almost all streams in this SMU despite events that undoubtedly diminished their abundance, provides evidence that all coastal cutthroat trout populations in the Southern Oregon SMU pass the productivity criterion.

Reproductive Independence

Data specific to reproductive independence are not available for Southern Oregon Coastal Cutthroat Trout. Instead we used current and historical stocking records to evaluate the risk of hatchery origin cutthroat trout to native coastal cutthroat trout. Stocking has occurred throughout much of the SMU. All stocking of hatchery cutthroat trout in the Southern Oregon SMU was discontinued in 1985. The residual effects of hatchery cutthroat on wild coastal cutthroat have not been determined. However, since no stocking of hatchery fish has occurred in the last 19 years, all populations passed this criterion.

Hybridization

Interspecific hybridization with non-native trout has not been identified as an issue for Southern Oregon coastal cutthroat trout.

Summary

Our final assessment of the Southern Oregon Coastal Cutthroat Trout SMU is “Not at Risk”. There is quantitative and qualitative data that indicate this species appears to be able to quickly respond to changes in habitat quality or quantity and to populate those habitats to capacity. Populations of coastal cutthroat trout have persisted where they are isolated and where they interact with populations of other salmonid and non-salmonid species. There is no conservation risk to this species at this time. Many of the datasets used in this assessment were developed with different protocols and assumptions, making it difficult to compare between datasets. During conservation plan development for the Southern Oregon Coastal Cutthroat Trout SMU these datasets will be analyzed thoroughly to ensure this interim assessment is accurate.