

Central California Coast Steelhead

Oncorhynchus mykiss



PHOTO: MORGAN BOND

Central California coast steelhead are a distinct group of anadromous trout inhabiting rivers of the central coast. Many of these rivers have dams blocking migration for spawning. Central California coast steelhead are unusually dependent on estuaries at the mouths of their streams for growth and survival. Although they demonstrate a tremendous amount of juvenile and adult life history variation, all adult spawning runs occur during the winter.

DISTRIBUTION: The Central California coast steelhead DPS includes all populations below natural and manmade barriers in streams from the Russian River in the north to Aptos Creek in the south. Steelhead in drainages of San Francisco, San Pablo, and Suisun Bays are also part of this DPS. Currently, Central California coast steelhead remain

in 82% of their historically occupied watersheds, which is impressive given the extensive urbanization of the southern portion of this region. The Russian River supports steelhead in tributaries and the mainstem for much of its length. Within the San Francisco Bay coastal and interior regions, independent populations are found in the Guadalupe and

CATEGORY	SCORE	EXPLANATION
Range	3	Multiple watersheds occupied in California but probably less than ten Functionally Independent Populations (FIPs) still exist
Population size	3	The Russian River likely contains more than 1,000 steelhead annually with smaller contributions from other FIPs, but numbers are declining
Intervention needs	3	Habitat restoration and barrier removal are critical to increasing habitat availability
Tolerance	4	Able to live in freshwater and brackish water environments
Genetic risk	4	Widespread but populations increasingly fragmented and isolated
Climate change	1	Extremely vulnerable in all watersheds because of stress from other factors (urbanization, etc.)
Overall status	3	
Reliability	3	Populations have been well studied

Napa Rivers, as well as in San Leandro, San Lorenzo, Coyote, and Alameda Creeks. Separate populations are also found south of the Golden Gate in the Santa Cruz mountains region including the San Lorenzo River and San Gregorio and Pescadero Creeks.

ABUNDANCE: Data on central California coast steelhead abundance are very limited, but it is likely that these steelhead spawning runs have declined by 80 to 90% in the past 50 years and that the decline is continuing. During the early 1960s, the California Department of Fish and Game estimated 94,000 spawners, with the majority occurring in the Russian River (50,000) and San Lorenzo River (19,000) and coastal tributaries supported about 24,000 fish annually. Current population estimates average about 14,100 adult steelhead per year for all streams.

FACTORS AFFECTING STATUS: Central California coast steelhead are limited by a wide variety of factors including, (1) dams and other barriers, (2) degradation of stream habitat, (3) degradation of estuarine habitat, and (4) hatcheries. In most streams, their upstream limit is determined by dams, whereas in smaller streams population viability is usually determined by the amount of water diverted for vineyards and other purposes. Many streams now flow through heavily urbanized areas. Climate change will exacerbate these problems by increasing temperatures beyond lethal limits in unprotected streams and increasing the demand for already scarce water supplies.

STATUS 3: Central California coast steelhead were listed as a federally threatened species in 1997, a finding that was reaffirmed in 2006. They do not appear to be in immediate danger of extinction because some populations, such as those in the Russian River, seem to be still fairly large, but this

could change as additional information becomes available. Every indication is that the number of fish in all populations is trending downward. Unless conservation actions are taken, it is likely extirpation of these steelhead from most small watersheds will occur over the next 25 to 50 years. The solutions are simultaneously local and widespread. Small-scale actions would include improved watershed management, such as addition of large wood, adequate riparian buffers, and limiting sediment and other pollutants flowing into a stream. Larger-scale actions include improved water releases from dams and better regulation of thousands of small water diverters from tributaries.

CONSERVATION RECOMMENDATIONS: All streams containing these steelhead should have flow, temperature, and sediment standards established and enforced by state and regional water boards. The persistence of this DPS depends on the persistence of habitat in hundreds of small streams.



Navarro River. PHOTO: JOE FERREIRA

chances for survival:
average

3



Central California Coast Steelhead Distribution

