

Central California Coast Coho Salmon

Oncorhynchus kisutch



PHOTO: MORGAN BOND

Central California coast coho salmon are one of two kinds of coho in California which look alike but are genetically different. Spawning adults are dark green on the head and back, maroon on the sides, and grey on the belly. Males are characterized by a bright red stripe, hooked jaw and slightly humped back. Spawners are typically 20 to 30 inches long and weigh six to 13 pounds. Most spawning adults are three years old but may include some two year olds. In the ocean, they are bright silver and are voracious predators on fish and shrimp. The young rear for one to two years in streams and require cold water and abundant protective cover which is often provided by fallen trees. For this reason, coho require dense coastal rain forests for their survival.

California Trout is There for the Fish!

In 2007, the California Court of Appeals affirmed endangered species status for the embattled California coho salmon in California Forestry Association et al. v. Fish and Game Commission. The original petition for listing the coho under the California Endangered Species Act, submitted by California Trout on behalf of the Salmon and Steelhead Recovery Coalition in July 2000, was reaffirmed with the landmark 2007 court ruling.

CATEGORY	SCORE	EXPLANATION
Range	2	Present only in California
Population size	2	All populations are small, isolated, and don't intermix. Most breeding populations are less than 50 fish in most years
Intervention needs	1	All populations require intervention to survive and most have intensive management programs in place or proposed
Tolerance	1	Coho are among the most sensitive salmonids to environmental conditions
Genetic risk	1	See Bucklin et al. (2007)
Climate change	1	At southern end of range, so exceptionally vulnerable to increased temperatures
Overall status	1	
Reliability	4	Well documented by scientific literature

DISTRIBUTION: Central California coast coho were native to coastal streams from Punta Gorda south to the San Lorenzo River and tributaries to the San Francisco Bay. They were found in about 330 streams of which 200 are in Mendocino County alone. Few of these streams support viable populations today. The most southern populations of coho are in Scott and Waddell Creeks in Santa Cruz County, with the largest remaining population in Lagunitas Creek, Marin County.

ABUNDANCE: Since about 1980, there have been fewer than 3,000 wild Central California coast coho salmon spawning each year, but this number varies with age class and with year. In recent years, the number of spawning coho have been much lower with totals of 500–1,000 in 2006–2007.

FACTORS AFFECTING STATUS: Central California coast coho streams have been heavily altered since the 19th century when virtually all watersheds were logged with destructive methods. Some habitat recovery occurred in the 20th century; however many of the watersheds were not reforested but were converted to urban and agricultural use, especially vineyards. As a result, streams were dammed and diverted, water quality became unsuitable, shade and protective cover were eliminated, and heavy sedimentation destroyed spawning areas. Little natural habitat for coho salmon remains in the region.

STATUS 1: With the possible exception of the small population in the Lagunitas Creek watershed, Central California coast coho are on the verge of extinction. These coho are listed as endangered by both state and federal agencies. Given the extreme negative alteration of most Central California coast coho watersheds, special efforts will be required to prevent this species from extinction. The most important factor for this species' survival is to protect

and enhance watersheds that have potential to support coho salmon. These watersheds include Scott, Waddell, and Lagunitas Creeks and the Garcia, Noyo, and Gualala Rivers. Other efforts needed to prevent extinction include (1) developing recovery hatcheries in conjunction with habitat improvement measures, (2) resolving water allocation issues to ensure adequate water is left to support coho salmon, (3) focusing on Lagunitas Creek in Marin County as a demonstration stream, and (4) providing additional protection to Santa Cruz County coho salmon as the southernmost population of the species.

CONSERVATION RECOMMENDATIONS: Conservation measures needed for the Central California coast coho salmon include rigorously protecting the few watersheds in which they still reside or have the potential to support coho in the future by reforming commercial logging practices and ensuring adequate water supplies. Recovery hatcheries should be developed and large-scale restoration projects, such as placement of large woody debris, need to be implemented immediately.



Lagunitas Creek. PHOTO: PAOLA BOULEY

chances for survival:
very poor

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Watersheds In Which Central California Coast Coho Salmon Were Historically Present

