

Coastal Rainbow Trout

Oncorhynchus mykiss irideus



PHOTO: DAVID GIODANO

California Trout is There for the Fish!

In 1971, California Trout helped instituted one of the most successful programs ever undertaken by the California Department of Fish and Game—the Wild Trout Program. As a result of California Trout’s leadership, more than 1,000 miles of rivers and streams and more than 20 lakes are under protection from this program. Because coastal rainbow trout are one of the most abundant and easily recognized of the wild trout species, they now enjoy widespread protection of their native streams, rivers and lakes.

Coastal rainbow trout are all wild, native rainbow trout that spend their entire life cycle in fresh water. These fish are typically silvery in overall color, white on the belly, with black spots on the tail, adipose fin, dorsal fin, and back; tail spots are in radiating lines. There is a pink to rosy lateral band on each side and the gill covers are also usually pink. Color is highly variable so trout from small streams may be fairly dark on the back with a yellowish belly. The mouth is large with the upper jaw extending behind the eye. Small teeth line the jaws, tongue, and roof of mouth. Coastal rainbows consist of many different populations that presumably had independent origins from steelhead, including some that may naturally interbreed with steelhead or produce young that can emigrate to the sea. Many resident trout populations may have originated from hatchery strains and are of mixed stock.

CATEGORY	SCORE	EXPLANATION
Range	5	Coastal rainbow trout are abundant and widely distributed around the world
Population size	5	There are many fish in many populations
Intervention needs	5	While stream improvements and other activities greatly improve the habitat of native and introduced populations, most rainbow populations can survive on their own with the existing protective laws and regulations
Tolerance	4	Physiological tolerances are rarely an issue
Genetic risk	5	There is a large amount of gene flow among rainbow trout populations
Climate change	4	Management can help make up for habitat losses due to climate change
Overall status	5	
Reliability	5	Coastal rainbow trout are the most studied of California salmonids

Coastal rainbow trout have a high diversity of life history strategies, which is a principal reason for their success. Resident fish usually spend most of their lives in a short section of stream and sometimes make short migrations for spawning. The trout mature in their second or third year, spawn one to three times, and rarely live more than five or six years. Depending on water flows and temperatures, spawning occurs between February and June. Fry live in shallow water in near-shore areas and gradually move into deeper water as they grow. Rainbow trout feed on aquatic and terrestrial insects as well as frogs and small fish. In lakes and reservoirs they frequently feed on open-water fish, such as threadfin shad.

DISTRIBUTION: Coastal rainbow trout were originally present in nearly all permanent coastal streams from San Diego north to the Smith River. They were also found in most rivers in the Central Valley, from the Kern River north to the Pit River. Resident forms were found wherever there was an evolutionary advantage to being non-anadromous. Today, where there is suitable habitat, resident trout are found in virtually all streams due to introductions. The expanded range of coastal rainbow trout includes most of the lakes and streams in the once-fishless portions of the Sierra Nevada north of the Upper Kern Basin.

ABUNDANCE: Wild, naturally spawning rainbow trout in California are much more abundant than they were historically because of their widespread introduction into suitable waters and their abundance in streams below large dams.

FACTORS AFFECTING STATUS: Coastal rainbow trout are negatively affected by, (1) over-fishing, (2) water diversions, (3) dams, (4) poor water quality, (5) poor watershed management from logging, agriculture, over-grazing, and

road building, (6) mining, (7) channelization of streams, and (8) introductions of alien species. Because of their hardiness and value to recreational fisheries, many local coastal rainbow trout populations have persisted and have become the focus of restoration programs.

STATUS 5: Despite all the damage done to California’s trout streams in the past 150 years, coastal rainbow trout continue to thrive in many areas. Populations are expanding at the present time due to conservation efforts.

CONSERVATION RECOMMENDATIONS: Conservation efforts center primarily around improving existing populations to increase wild trout populations for recreational fisheries. Augmenting the number of stream miles designated as Wild Trout waters will benefit rainbows; however reduced summer flows, warmer water due to climate change, and continuing conflicts with the protection of endangered fishes will be factors in maintaining populations at present levels.



Upper Sacramento River. PHOTO: PETER MOYLE

