

# Rainbow Trout & Steelhead

in the Stanislaus River

Population counts conducted annually by FISHBIO in the Stanislaus River suggest there are 10,000-20,000 resident rainbow trout, which produce thousands of young fish each year. Some of those develop into steelhead trout, which migrate to the ocean and occasionally return to the river to spawn, while others remain in the river throughout their life.

Rainbow trout and steelhead are the same species. They are among the top sport fish in North America. Rainbow trout and steelhead in the Stanislaus River downstream of Goodwin Dam are protected under the federal Endangered Species Act.

Unlike a salmon, which dies after spawning, steelhead trout can spawn, return to the ocean, and migrate back upstream to spawn several times. Some offspring of two steelhead can stay in freshwater and be resident trout, and offspring of two resident rainbow trout can become a steelhead.

Predation is the biggest cause of mortality for young fish. Non-native predators such as largemouth bass, smallmouth bass and striped bass have been estimated to eat 95% or more of young steelhead before they reach the Delta.

Trying to increase rainbow trout and steelhead populations by increasing river flow is not based on any scientific evidence. Increasing flow does not create better habitat in the Stanislaus to support young trout or reduce predation.

Rainbow trout and steelhead are the same species, but they lead very different lives. Scientists are not precisely sure which environmental factors or inherited traits determine which kind of fish a juvenile grows into – the resident form (rainbow trout) that stays in freshwater or the anadromous form (steelhead) that migrates to the ocean.

Because of their different lifestyles, adult rainbow trout and steelhead are different in appearance, most noticeably in size and color. Rainbow trout derive their name from their beautiful, multi-hued coloration. Their bodies are blue, green or yellowish, shading to silvery white on the underside, with a horizontal pink-red stripe running from the gills to the tail and black spots along their backs. Steelhead generally are more streamlined in shape and silvery or brassy in color as adults, earning them the name steelhead.



STEELHEAD



RAINBOW TROUT

## SIZE:

Adult rainbow trout/steelhead can reach 45 inches in length, but are usually much smaller. They can weigh over 50 pounds, but a more typical weight is 8 pounds. Because steelhead spend 2-3 years in fresh water followed by 2-3 years in the ocean, they are typically larger than rainbow trout, which live all of their lives in fresh water.

## DIET:

Rainbow trout/steelhead have a varied diet and will feed on just about anything, such as zooplankton when they're young, and as they mature, fish eggs, small fish, crustaceans, mollusks, insects and even mice. In habitats that are dense with vegetation, rainbow trout often have the opportunity to eat arthropods that fall into the stream.

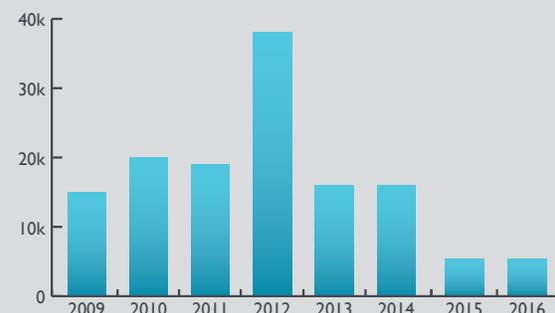
## PREDATION:

Rainbow trout/steelhead are food for many different predators depending on the region and habitat. Their predators include lampreys, fish, birds, bears, river otters, raccoons and humans. In the sea, steelhead are eaten by many species including seals, sea lions and orcas.

## TYPICAL LIFESPAN:

Four to six years in the wild. The largest rainbow trout ever caught was estimated to be 11 years old.

## STANISLAUS RIVER RAINBOW TROUT POPULATION



Sources: National Wildlife Federation and FISHBIO