Chinook Salmon (*Onchorhynchus tshawytscha*)

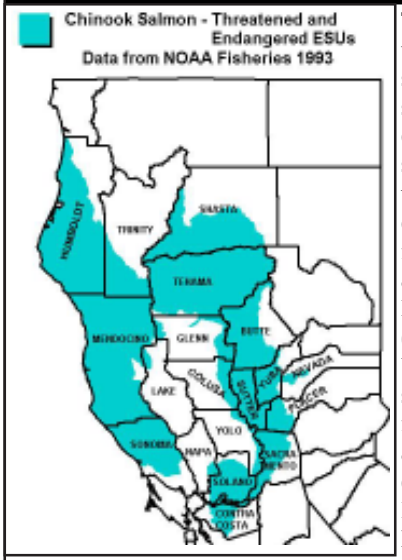
Status -- Federal: Threatened; California: Endangered

Photo: Richard T. Grost

The Chinook salmon belongs to the family Salmonidae. It is one of eight species of Pacific salmonids. Chinook salmon are the largest species of salmon, with adults often exceeding 40 pounds; there are reports of some individuals reaching 120 pounds. During their life at sea, they have a blue-green back with silver flanks, small black spots on both lobes of the tail, and black pigment along the base of the teeth. Chinook salmon are anadromous, that is, the adults migrate from the sea into fresh water streams and rivers where they were born.

California Department of Pesticide Regulation
Endangered Species Project
www.cdpr.ca.gov/docs/endspec/index.htm

Chinook Salmon



They are semelparous, which means they only spawn once and die. When salmon enter freshwater to begin their spawning migration, this process is called a “run”. There are different seasonal runs (spring, summer, fall or winter) or modes in the migration of chinook salmon from the ocean to freshwater. These seasonal runs are also used for classification of distinct Evolutionarily Significant Units (ESUs). An Evolutionarily Significant Unit is a population of fish that is substantially reproductively isolated from other populations and represents an important component in the evolutionary legacy of the species. In California, there are three ESUs listed for chinook salmon, covering the shaded area in the map: California Coastal (Threatened), Sacramento Winter (Endangered), and Central Valley Spring (Threatened). Additional chinook salmon ESUs are candidates for listing, or have no listing status.

Reproduction: Adult female chinook prepare a spawning bed, called a redd, in a stream area with suitable gravel, water depth and velocity. They deposit the eggs in 4 to 5 “nesting pockets” within each redd. After laying the eggs, adult chinook will guard the redd for 4 to 25 days before dying. Chinook salmon eggs hatch at 90 to 150 days, depending on water temperature. Young salmon fry emerge during the following spring. Juvenile chinook may spend from 3 months to 2 years in freshwater after emergence and before migrating to estuarine areas as smolts, and then into the ocean to feed and mature. Chinook salmon remain at sea commonly 2 to 4 years, with the exception of a small proportion of yearling males (called jack salmon) which mature in freshwater or return after 2 or 3 months in salt water.