

NAPA RIVER STEELHEAD AND SALMON MONITORING PROGRAM

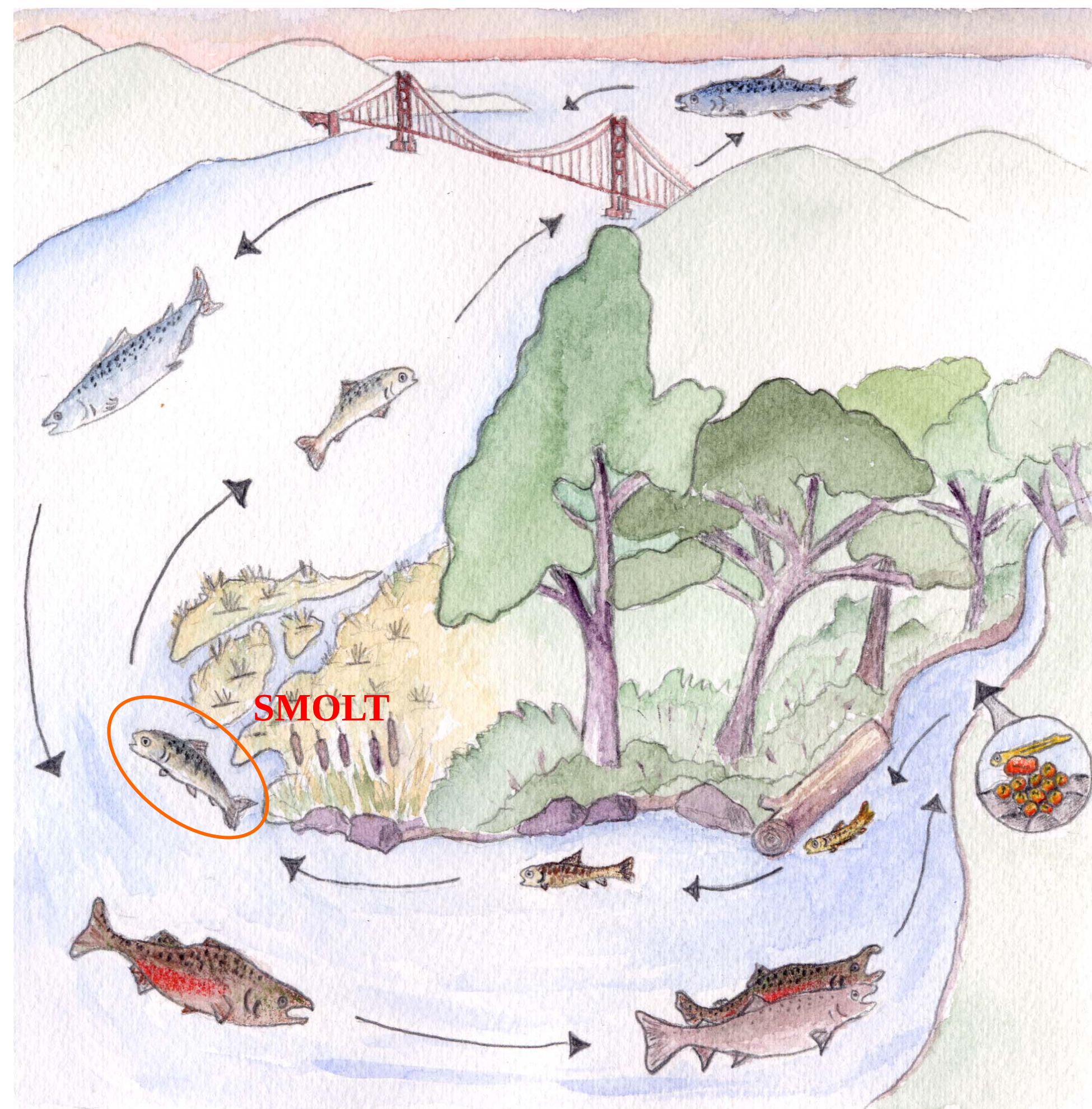
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SUMMARY

The Napa County Resource Conservation District (RCD) initiated a steelhead and salmon outmigrant monitoring program in 2009 using a rotary screw trap. The trap is located on the mainstem Napa River north of Trancas Avenue within a few hundred meters of tidal influence. The trap is operated continuously from mid February through June and is designed to catch young steelhead and salmon as they migrate from freshwater to the ocean as “smolts”. The purpose of this program is to collect data on steelhead and salmon populations, as well as document the diversity the Napa River watershed fish community.

This program represents the first smolt trapping effort ever undertaken for the Napa River basin. A dedicated group of volunteers from *Napa River Steelhead* has assisted with installation, daily processing, and maintenance of the trap every year. Now in the third year of operation, we have captured over 15,000 fish representing 25 species. Native species have dominated the catch, comprising approximately 99% of the total since 2009.

The Napa RCD and its partners plan to operate the trap annually to develop salmonid population estimates and track ecological responses to ongoing habitat restoration.



STEELHEAD AND SALMON LIFECYCLE



STEELHEAD SMOLT

ROTARY SCREW TRAP



NAPA RIVER WATERSHED



CHINOOK SALMON



SACRAMENTO PIKEMINNOW



STEELHEAD PARR



RIVER LAMPREY



EIGHT-FOOT DIAMETER ROTARY SCREW TRAP



VOLUNTEER PARTICIPATION



PRICKLY SCULPIN



PACIFIC LAMPREY

FINDINGS

- The Napa River native fish assemblage is largely intact with very few exotic species present in the freshwater portion of the watershed.
- Napa River steelhead smolts are generally large and therefore would be expected to have relatively high marine survival rates.
- Steelhead spawning was documented for the first time in the lowest reaches of the non-tidal Napa River in 2009.
- Based on three years of sampling, Chinook salmon spawning success is highly variable from one year to another, while steelhead production is relatively consistent.
- A rotary screw trap is an effective monitoring tool for the Napa River, and long-term operation of the trap will document ecological responses to ongoing restoration.



CALIFORNIA ROACH



SACRAMENTO SPLITTAIL



SACRAMENTO SUCKER

Project Funding:
The Gasser Foundation
The Wildlife Conservation Commission of Napa County
Napa River Steelhead
County of Napa
California Department of Fish and Game
City of Napa

Project Partners:
Treasury Wine Estates
Napa River Steelhead