



CALIFORNIA SALMONSCAPE

TELLING THE STORY

NOAA Fisheries' California Salmonscape follows Pacific salmon through California's varied freshwater, estuarine, and marine systems. The circular pattern emphasizes the continuous flow of seasonal salmon runs through the state and the connections between humans and nature throughout the salmon life cycle.

PAST & PRESENT

Chinook salmon, coho salmon, and steelhead have thrived in California's waters for millenia but modern changes in habitat conditions, water use, and climate have left many populations teetering on the brink of extinction. Since time immemorial, salmon have provided for native peoples, and more recently for California's recreational and commercial fishermen. Since the mid-1800's, impacts to the landscape and increased demands for water have heavily impacted salmon and steelhead production. We affect salmon in our daily lives by our choices in how much water we use, where we live, what food we grow, and the seafood we eat. Saving our salmon and steelhead populations means restoring fish habitat from the ridgetops to the ocean including waterways, wetlands, and estuaries, managing fishing in ways that respond to changing environmental conditions, improving scientific data collection, and much more.

Their future is in our hands.

THE SCIENCE BEHIND THE ARTWORK

Researchers in the Fisheries Ecology Division at NOAA Fisheries' Southwest Fisheries Science Center study Pacific salmon and steelhead to inform the conservation and restoration of their populations. Center scientists conduct stock assessments using information on salmon catch, age, abundance, and distribution to forecast returns to specific rivers and to provide managers with the foundation to set fishing seasons and harvest limits. They tag salmon and track their movements to locate where and when threats occur across the life cycle to inform restoration and management efforts.

The loss of historical habitat has significantly contributed to the decline of Pacific salmon populations. Center scientists support the evaluation of conservation actions by creating tools that measure the benefits of habitat restoration, the release of water from reservoirs, and improving fish passage at dams. Hatcheries can play an important role to support fisheries and conservation, and Center geneticists provide guidance for their broodstock matings to promote long-term genetic integrity of natural and hatchery salmon.

To ensure the long-term economic viability of salmon fisheries, Center economists calculate the impacts of California water usage, evaluate policies affecting instream flow, develop decision tools for dam removal, and study how fisheries affect resilience of coastal fishing communities.

A detailed scientific illustration of a California salmon ecosystem. The top shows a beach with a surfboard, palm trees, and mountains. The middle section features a large salmon swimming upwards, surrounded by smaller fish, jellyfish, and kelp. The bottom section shows a dense school of salmon swimming in a river or stream. The entire illustration is framed by a decorative border of fish and kelp.

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CREATING THE ARTWORK

Renowned a-fish-ionado, Ray Troll, created this scientific illustration in consultation with NOAA Fisheries' Southwest Fisheries Science Center and the Monterey Bay National Marine Sanctuary. The poster was produced by Sea Studios, with funding from the National Marine Sanctuary Foundation. Graphic design by Karen Lybrand. Digital color assistance by Grace Freeman. Drawing assistance by Memo Jauregui.

SALMON SCIENCE IN SUPPORT OF MANAGEMENT

The results and findings of the Science Center's research inform management, conservation, and recovery actions and activities for California salmon and steelhead and are used by NOAA Fisheries West Coast Region as well as tribal, state, federal partners, other stakeholders and nongovernmental groups, and the Pacific Fisheries Management Council.

SPECIES IN THE SPOTLIGHT

The "Species in the Spotlight: Survive to Thrive" initiative was launched in 2015 to bring greater attention and marshal resources to save these highly at-risk species.

Two of California's evolutionarily significant units (ESUs) of Pacific salmon are highlighted in this program – the Sacramento River Winter-Run Chinook Salmon, and the Central California Coast Coho Salmon.

For more information on the Species in the Spotlight, visit:

<https://www.fisheries.noaa.gov/topic/endangered-species-conservation#species-in-the-spotlight>

NOAA FISHERIES – THE NATION'S OCEAN STEWARD

NOAA Fisheries is dedicated to the stewardship of living marine resources through science-based conservation and management, and the promotion of healthy ecosystems. NOAA Fisheries conserves, protects, and manages living marine resources in a way that ensures their continuation as functioning components of ecosystems, affords economic opportunities, and enhances the quality of life for the American public.

<https://www.fisheries.noaa.gov>

CALIFORNIA SALMONSCAPE ONLINE

For more information on California salmonscape, visit:

<https://www.fisheries.noaa.gov/west-coast/outreach-and-education/california-salmonscape>



The Santa Cruz Laboratory of NOAA Fisheries' Southwest Fisheries Science Center captures the long and vibrant history of the "California Salmonscape" through this scientific illustration. The "California Salmonscape" poster was produced by Sea Studios with funding from the National Marine Sanctuary Foundation.