

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.

A VITAL ROLE

The "California Salmonscape" is characterized by native salmon and their dynamic habitats, which extend from their headwaters, through the valleys, to the coastal wetlands and ocean. Salmon can be found throughout California's Central Valley in both the Sacramento and San Joaquin River Valleys. Depending on where you are, you can encounter Sacramento River winter-run Chinook salmon, Central Valley spring-run Chinook salmon, Central Valley fall-run Chinook salmon, or Central Valley late fall-run Chinook salmon.

Migrating from their home streams to the ocean and back again, they mature from egg to adult, sharing the landscape with human activities across the most populous state in the nation. People fish for Central Valley salmon along the Oregon and California Coasts, and these fish play a vital role in the state's economy, providing thousands of jobs and hundreds of millions of dollars annually. Researchers at NOAA Fisheries' Southwest Fisheries Science Center help us understand the vital ecosystems defined and enriched by these fish.

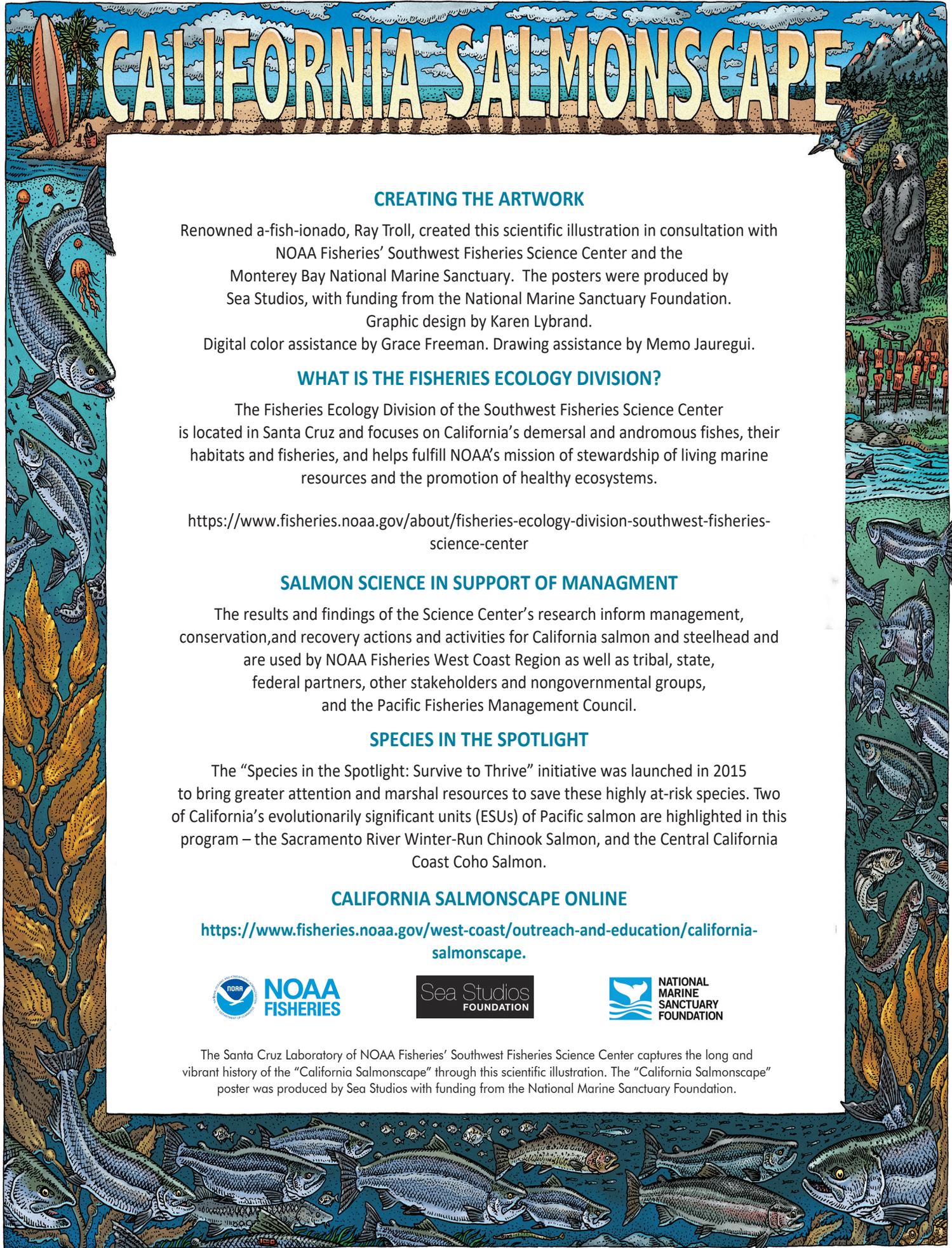
These efforts strengthen and inform the management and conservation of salmon in our communities across the California Salmonscape.

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 river with a bear, a bird, and a fence. The bottom section is filled with various salmon species swimming in the water, surrounded by kelp and smaller fish. The title 'CALIFORNIA SALMONSCAPE' is written in large, bold, yellow letters across the top.

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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 posters were 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.

WHAT IS THE FISHERIES ECOLOGY DIVISION?

The Fisheries Ecology Division of the Southwest Fisheries Science Center is located in Santa Cruz and focuses on California's demersal and anadromous fishes, their habitats and fisheries, and helps fulfill NOAA's mission of stewardship of living marine resources and the promotion of healthy ecosystems.

<https://www.fisheries.noaa.gov/about/fisheries-ecology-division-southwest-fisheries-science-center>

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.

CALIFORNIA SALMONSCAPE ONLINE

<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.