Status Review for Southern California Steelhead

Oncorhynchus mykiss

Presentation to the California Fish and Game Commission

April18| Robin Shin

Fisheries Branch

Presentation Overview

- Listing Description
- Species Overview
- Information Received
- Abundance and Population Trends
- Threats
- Department Recommendation
- Management and Recovery Measures

Listing Description

- Southern California steelhead means all *O. mykiss*, including anadromous and resident life histories, below manmade and natural complete barriers to anadromy from and including the Santa Maria River to the U.S.-Mexico Border.

- Federal listing includes only naturally spawned anadromous adults

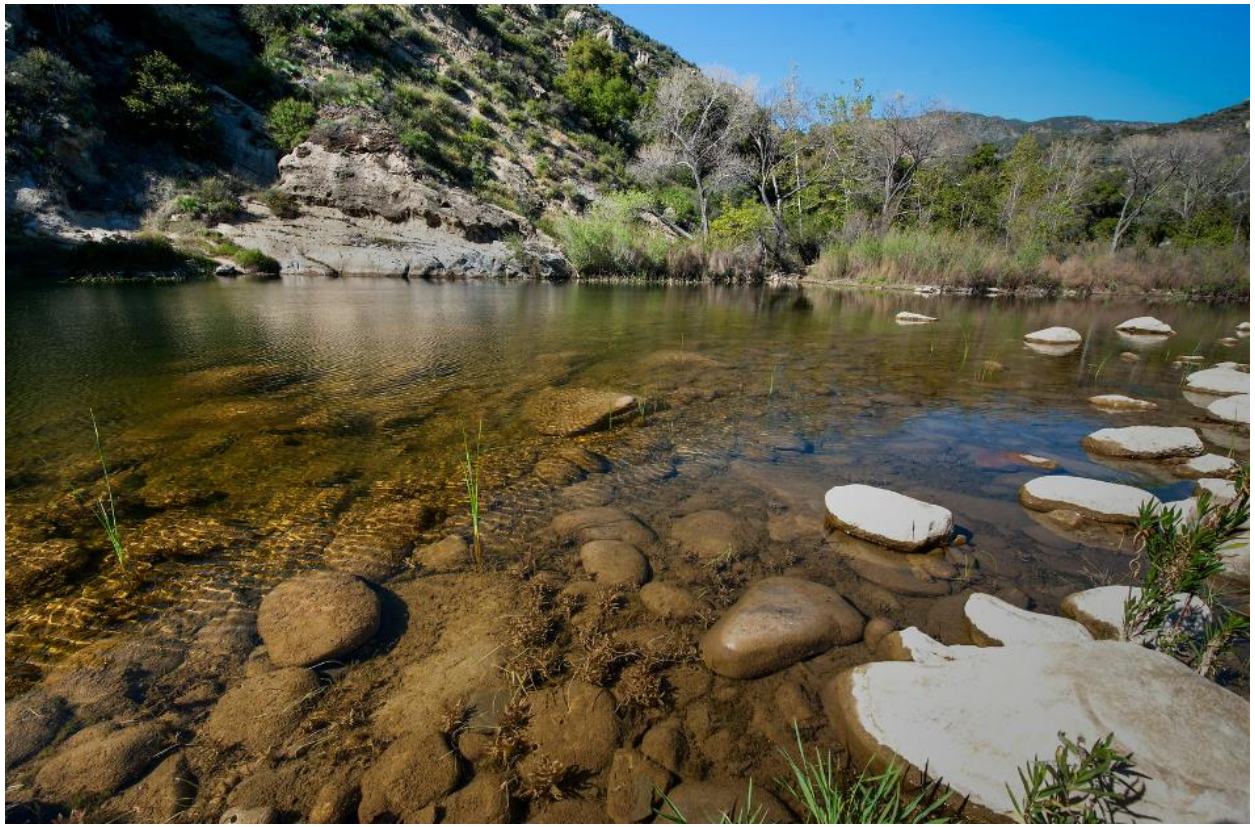
- Department determination that Southern California steelhead is a Distinct Population Segment (DPS) and hence a subspecies for CESA listing purposes.

Species Overview: Life History

- Exhibit an anadromous life-history
- Born and reared in freshwater and mature in saltwater before returning to their natal waters to reproduce
- Variation in the time and location spent at each life-history:
  - Anadromous (freshwater to saltwater migration)
  - Freshwater Resident (remain in freshwater)
  - Lagoon-anadromous (migration to and from brackish lagoons)

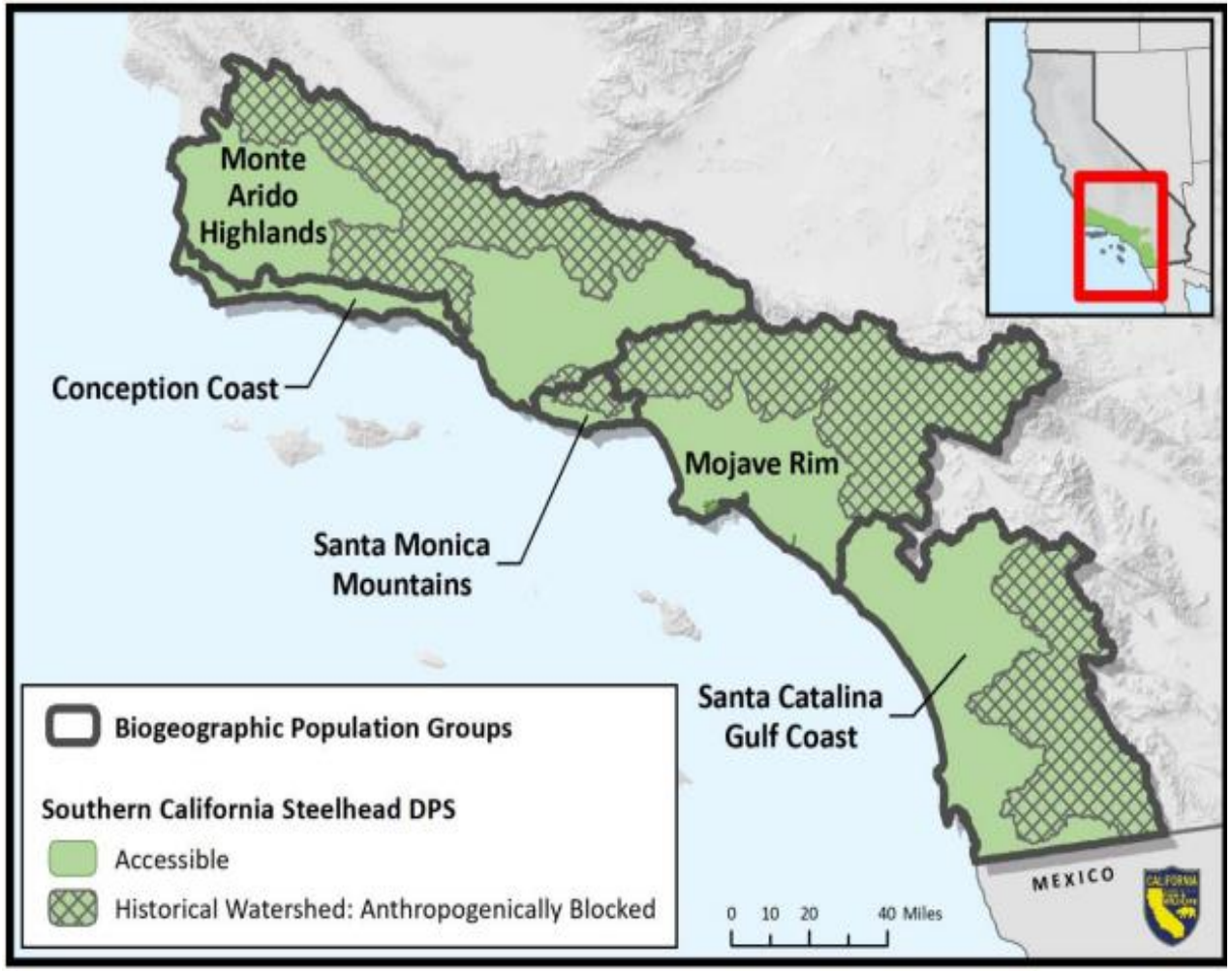
Species Overview: Habitat

- Spawning
  - Clean loose gravel
  - Adequate depth and velocity
- Freshwater Residency
  - Sufficient flow
  - Cool water temperatures
  - Cover habitat
  - Availability of prey items
- Estuarine Rearing
  - Sand berm formation
  - Low degradation



Species Overview: Range and Distribution

- Santa Maria River (San Luis Obispo and Santa Barbara counties)to the U.S.-Mexico Border
- Encompasses 5 biogeographic population groups of *O. mykiss*
- Less than half of 46 watersheds known to support historical populations are still occupied



Map by Janet Brewster, CDFW

Information Received

- During data solicitation period [April 2022 to January 2023]:
  - 17 comments from Tribes
  - 480 emails received
  - 12 submissions of information

- After Status Review delivered to Commission [January 2024]:
  - 39 references
  - Draft technical memo for southern California steelhead life cycle model and graphic user interface

Abundance/Population Trends

Anadromous Adults

- Critically low range-wide abundances
- Counts have not been greater than ten for any watershed examined
- Most streams have observed no adult returns in past 10 years

Population	Years	Trend (%/year)	Minimum Abundance (12-year)	Maximum Abundance (12-year)
Santa Ynez River	1995-2021	-2.24	0	9
Ventura River	2006-2021	**-7.54**	0	1
Santa Clara River	1994-2018	-2.29	0	3
Topanga Creek	2001-2019	-1.7	0	5
Malibu Creek	2004-2019	-1.41	0	2

Abundance/Population Trends

Resident *O.mykiss*

- Measurable declines in population trend and abundances for all populations examined.

Population	Years	Trend (%/year)	Minimum Abundance (12-year)	Maximum Abundance (12-year)
Santa Ynez River	1995-2021	**-8.81**	5	484
Ventura River	2006-2021	**-19.39**	0	640
Santa Clara River	1994-2018	-6.09	1	170
Malibu Creek	2004-2019	**-25.56**	0	2,245
Topanga Creek	2001-2019	-1.41	34	316

Major Threats

- Dams, Diversions, and Artificial Barriers
- Urbanization
- Estuarine Habitat Loss
- Invasive Species
- Wildfires
- Drought
- Climate change

Rindge Dam, Malibu Creek

Department Recommendation

The Department recommends that the Commission find the petitioned action to list Southern California steelhead as an endangered species to be warranted.

Management and Recovery Measures

- Implement comprehensive monitoring
- Remove manmade passage barriers and re-establish access to upper watersheds
- Habitat and streamflow restoration

Questions ◈ Thank You

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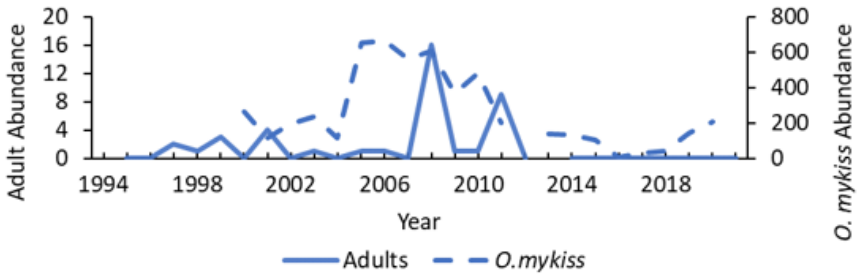
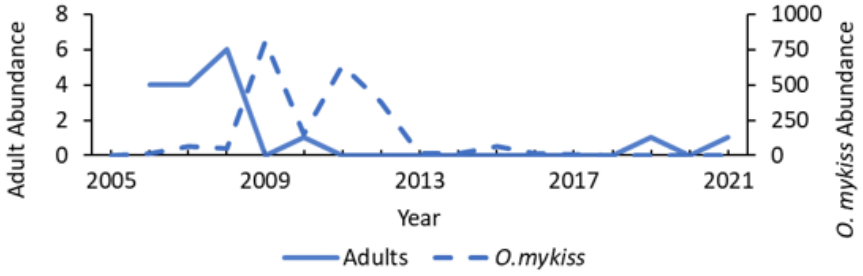
Summary

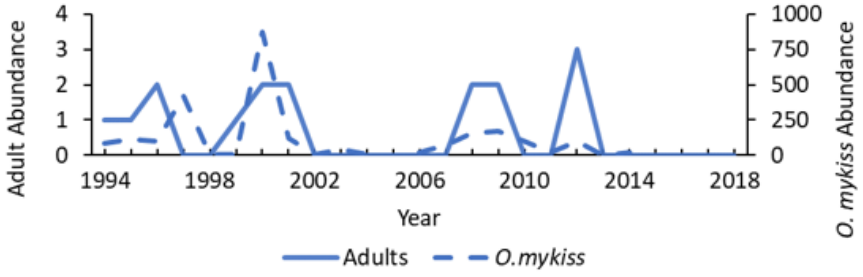
A. Santa Ynez River



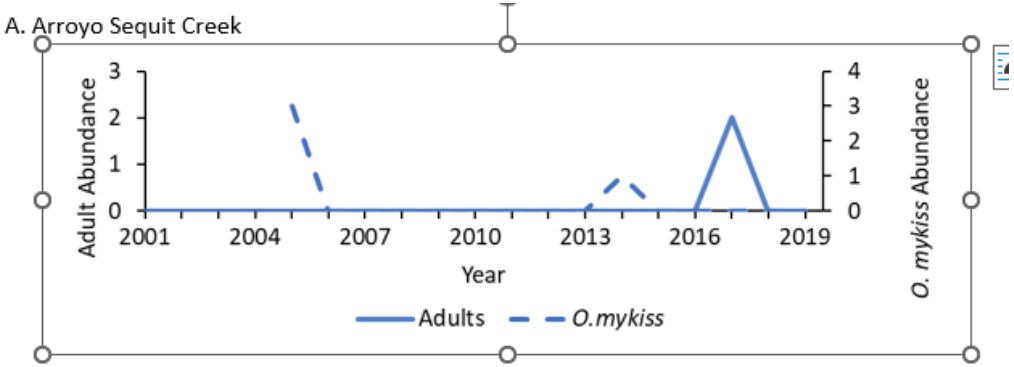
B. Ventura River



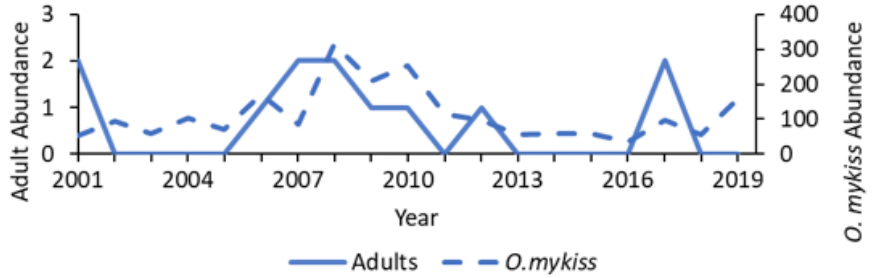
C. Santa Clara River



A. Arroyo Sequit Creek



B. Topanga Creek



C. Malibu Creek