

**National Marine Fisheries Service, Southwest Fisheries Science Center, Fisheries Ecology Division
Central Valley Salmon and Sturgeon research**

Central Valley Science Coordination:

Rachel Johnson – facilitates coordination between SWFSC FED and Central Valley partners, including the NMFS Central Valley Office. Research focuses on filling data gaps needed by fisheries and water resource managers in the CV to implement effective restoration and conservation measures for imperiled species and those targeted by fisheries. Leads the 5-year viability assessment for CV salmon populations.

Reintroduction science:

Carlos Garza and Devon Pearse—work on Chinook salmon and steelhead genetics to inform reintroduction efforts above Shasta Dam, New Bullards Bar Dam on the Yuba River, and Don Pedro Dam on the Tuolumne River, Jump start of winter run to Battle Creek, and the San Joaquin Reintroduction Program.

Lee Harrison and David Boughton – conduct habitat assessments above barriers to evaluate suitability to support above barrier populations of salmonids.

Cameron Speir, Aaron Mamula, and Michael Mohr - economic analysis of the cost impacts of providing fish passage around the Don Pedro Hydroelectric Project on the Tuolumne River

Winter-run Life Cycle Model for CalWaterfix and water project operations:

Steve Lindley - Team lead

Eric Danner, Noble Hendrix -- coordinated application of model to CWF, assisted in interpretation of results and adjustments to evaluate alternative scenarios. Continue to develop model for application to Reconsultation of Water Project Operations, coordination with CCVO for stakeholder outreach, execution of efforts suggested by stakeholders to explore/strengthen model, and evaluate effects of Shasta reintroduction

Vamsi Sridharan - researches how Delta hydrodynamics influence salmon movement and survival.

Winter-run Temperature Compliance:

Eric Danner: Team lead

Miles Daniels, Benjamin Martin and, Sara John-- research temperature dynamics for winter-run Chinook salmon on operational scenarios for Shasta Reservoir using the RAFT and temperature-dependent egg mortality models

Real-time Survival Estimates for Salmon:

Arnold Ammann, Brendan Lehman, Cyril Michel, Alex McHuron, Jeremy Notch, Nicholas Demetras, and JoAnne Siskidis--examine salmon movement and survival using acoustic telemetry

Green Sturgeon Population Abundance and Genetics:

Ethan Mora, Carlos Garza, and Eric Anderson-- conduct sDPS green sturgeon population abundance and genetics

Spring-run Chinook habitat use, survival, and population dynamics:

Flora Cordoleani and Jeremy Notch-- examine Chinook in the Central Valley movement, survival and habitat use for spring-run Chinook salmon from Mill, Deer, and Butte Creeks

Salmon Ocean Harvest Models and CAL-SAFE:

Michael O'Farrell and Will Satterthwaite provide annual stock assessments and rebuilding plans for Central Valley Chinook salmon. Carlos Garza and Michael O'Farrell participate in a technical team composed of SFD, FED and CVO/CCO staff to advise on issues associated with the development of a terminal fishery.

Central Valley Salmon Habitat Partnership:

Steve Lindley and Rachel Johnson participate in this new partnership with NGOs, state and federal resource agencies, and salmon fishing organizations to prioritize and implement salmon habitat restoration.