

Keeping Track of the Little Ones: San Joaquin River Spring-run Chinook Salmon 2020 Technical Memorandum

Hilary Glenn, Katherine Schmidt, & Erin Strange

California Central Valley Office, NMFS, NOAA,
in coordination with the San Joaquin River Restoration Program (SJRRP)



NEP Juvenile Releases

- The SJRRP has been releasing non-essential experimental population (NEP) juvenile spring-run Chinook into the San Joaquin River annually since 2016.
- Approximately 211,025 young-of-year and 6,651 yearlings were released in 2019.
 - The largest number of juveniles the SJRRP has ever released. Releases in 2020 are anticipated to be just as large.
- UC Davis is tracking the movements of 700 young-of-year juveniles equipped with JSAT tags throughout the Southern Delta.

Table 1. Release dates, locations, origin, and numbers of Central Valley spring-run Chinook salmon young-of-year released by the San Joaquin River Restoration Program in 2019.

Release Dates 2019	Release Location	No. of Feather River Fish Hatchery Origin Juveniles Released (CWT)	No. of Salmon Conservation and Research Facility Origin Juveniles Released (CWT)
January 31st	Reach 5	N/A	50,000 (06-14-09)
January – May (RST efficiency testing)	Reaches 1 and 2	N/A	~40,000 (06-14-08) (600 per release) (Last release ~8,000 on May 29)
February 8th	Reach 5	N/A	31,295 (06-14-10)
February 28th	Reach 5	N/A	87,200 (06-19-64)
April 5th	Reach 1	2,530 (06-14-46)	N/A

Background

The National Marine Fisheries Service (NMFS) prepares an annual technical memorandum regarding the accounting of NEP Central Valley spring-run Chinook salmon reintroduced into the San Joaquin River below Friant Dam. Its purpose is to:

- Calculate, document, and otherwise adjust for salmon originating from the reintroduction when applying operational triggers associated with the long-term operations of the state and federal water projects, a requirement of the designation (70 Federal Register 79622, 12/31/2013);
- Present methodology that will be employed the following release season so that NEP spring-run Chinook salmon originating from San Joaquin River Restoration Program (SJRRP) activities can be identified; and
- Outline the NEP spring-run Chinook salmon release and monitoring plans for the next year (2020 upcoming).

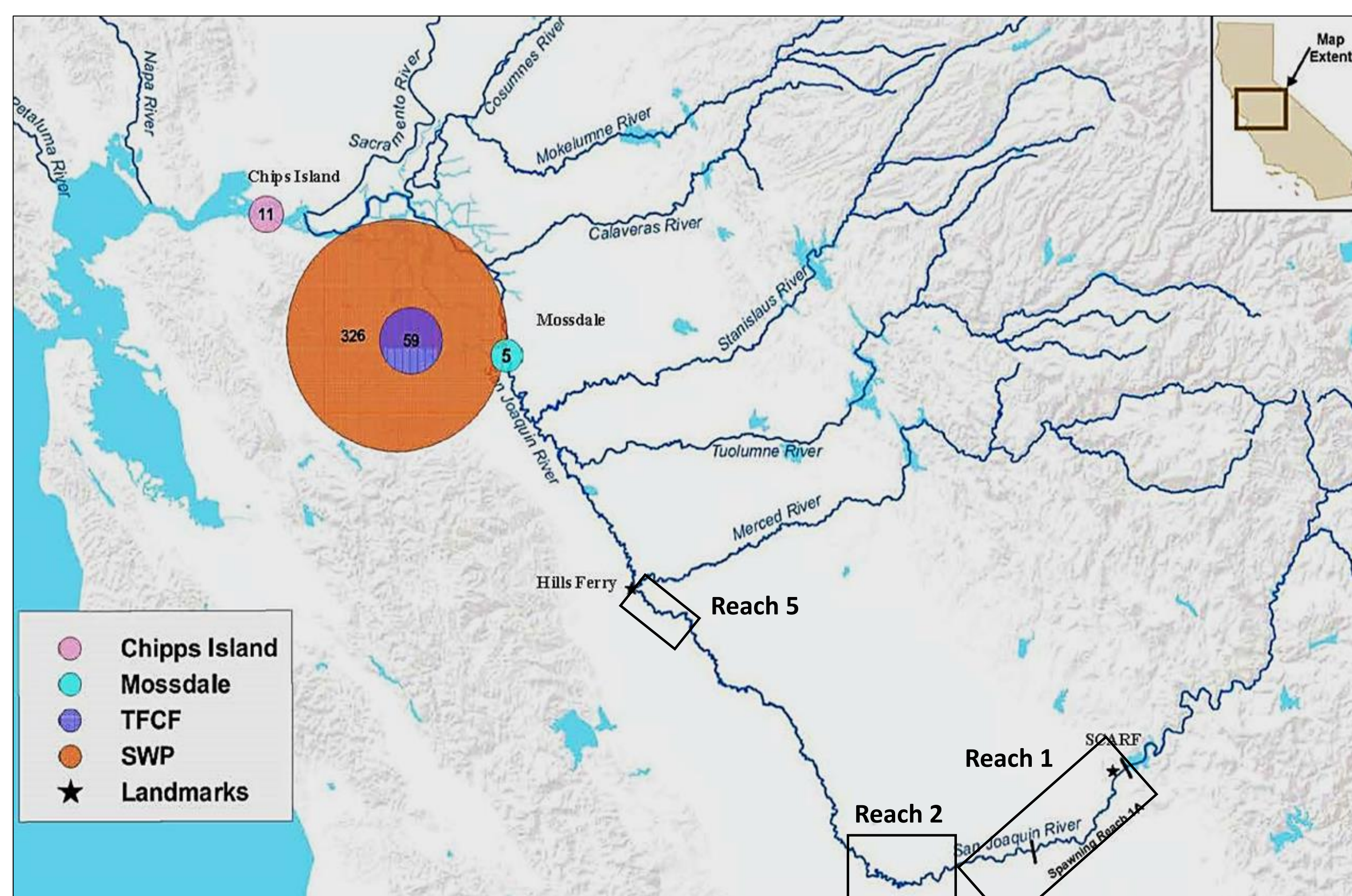


Figure 1. Map of the SJRRP Restoration Area and the Delta, showing where spring-run Chinook salmon young-of-year and yearling juveniles were detected downstream in 2019. The number within the bubbles and bubble size is relative to the number of coded wire tagged fish recovered at that location. TFCF refers to the Tracy Fish Collection Facility and SWP refers to the Skinner Delta Fish Protective Facility. SCARF refers to the Salmon Conservation and Research Facility run by the San Joaquin River Restoration Program. (Credit: Sheila Greene)

Daily Tally of Detection by Location/Capture Method, and Total Detections Daily

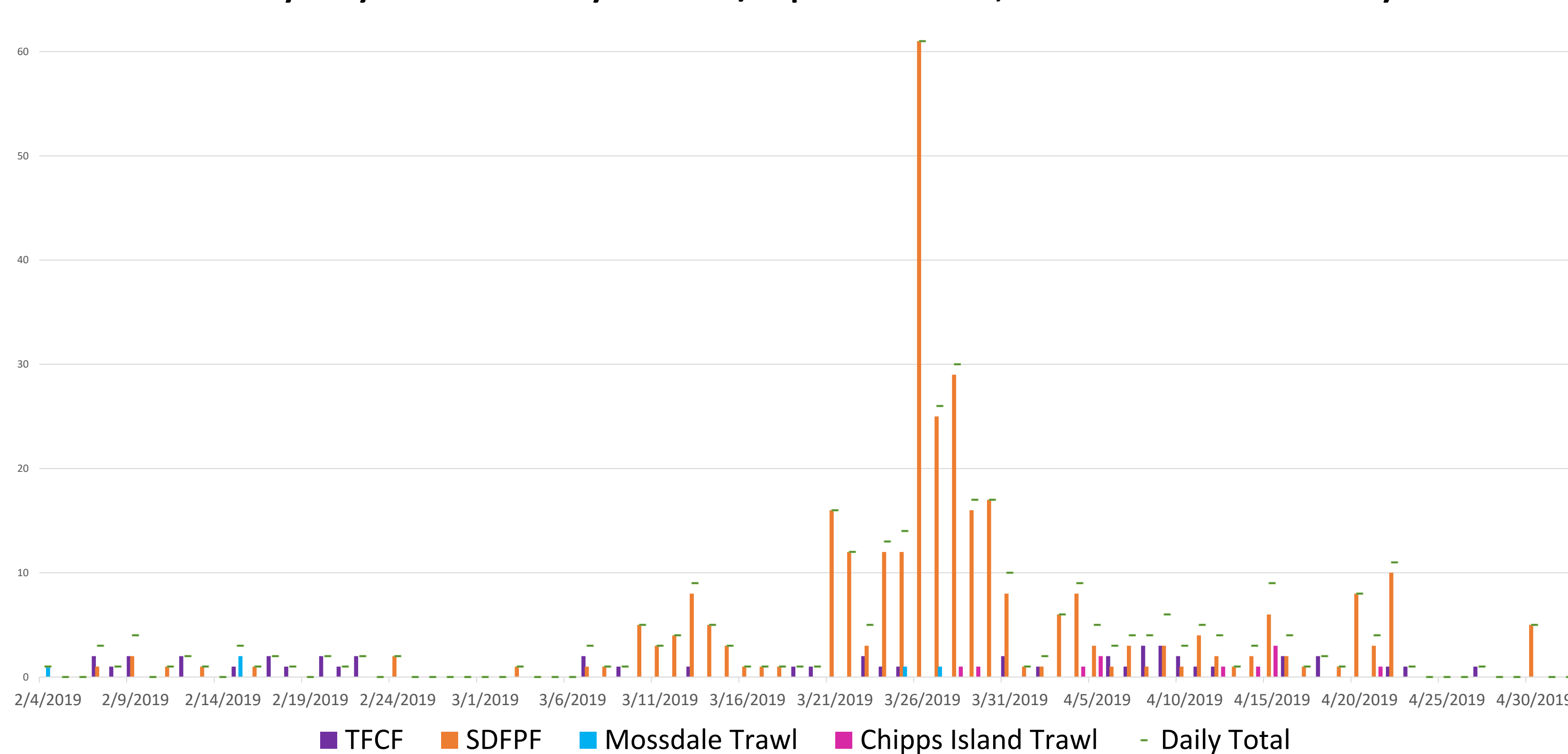


Figure 2. Total daily detections of released NEP spring-run Chinook salmon young-of-year between February 4 and May 1, 2019, grouped by sample location or method.* See above for information on release group locations and dates.
*The capture of one juvenile on May 27, 2019 was omitted to increase graph readability.

Juvenile Investments – Adult Returns

- Juvenile salmon continue to successfully migrate through the San Joaquin River and Southern Delta. Some juveniles (5) navigated the entire Restoration Area and were identified at the TFCF and SDFPF.
- The first adult returns in the history of the SJRRP occurred in 2019, since the San Joaquin River was disconnected over 60 years ago!
- Over 200 redds counted in San Joaquin River spawning areas, indicating that many adults were able to traverse several migration barriers and successfully complete their life cycle unaided.
- 60 adults confirmed captured in the ocean fishery in 2019.



Photo credits:
Steve Martarano, USFWS
and Josh Newcom, BOR

Annual technical memorandums are posted online at:

<https://www.fisheries.noaa.gov/west-coast/habitat-conservation/san-joaquin-river-restoration>

More information about the San Joaquin River Restoration Program can be found at:

<http://www.restoresjr.net/>

Find us on social media at:

[@NOAAFish_WCRO](#)

[@noaafisheries](#)

[@NOAAfisheriesWestCoast](#)

Acknowledgements

Thank you to everyone involved in the SJRRP and all the researchers who shared their data to make this report possible every year. Also a huge shout out to everyone who reads coded wire tags from juvenile salmon from the Central Valley; without you we'd have no data. Thank you!

The recommendations and general content presented in this poster do not necessarily represent the views or official position of the Department of Commerce, the National Oceanic and Atmospheric Administration, or the National Marine Fisheries Service.