

# *CENTRAL VALLEY ANGLER SURVEY: 2018 Recreational Harvest of Chinook Salmon*



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# 2018 Central Valley Salmon Season

General season: July 16 – December 16

## **Exceptions:**

### Lower American River

July 16–December 31

### Upper Sacramento River

August 1–December 16

RBDD to Deschutes Road Bridge

### Feather River

July 16–October 15

From Live Oak to the Thermalito outfall

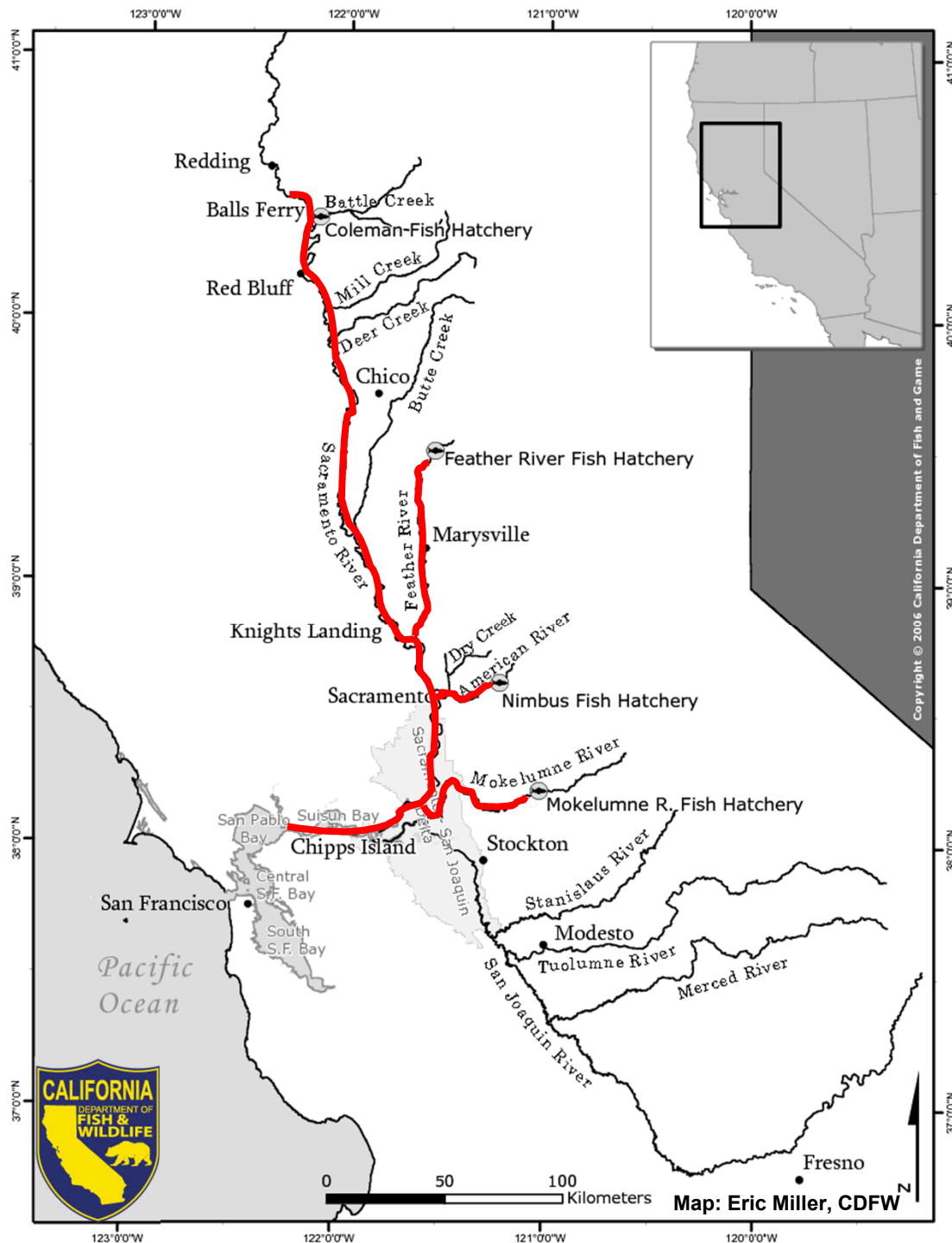
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# Central Valley Angler Survey



- Estimate angler effort targeting Chinook Salmon
- Estimate catch & harvest of Chinook Salmon
- Estimate catch-per-unit-effort (CPUE)
- Collect biological information on the catch
- Recover coded-wire tags



## Sampling Design:

- 24 survey sections:
  - *Sacramento River: Carquinez Bridge to Deschutes Rd Bridge*
  - *Feather River*
  - *American River*
  - *Mokelumne River*
- Eight randomly selected sampling days per month:
  - *four weekdays*
  - *four weekend days*



# Estimates of Chinook Salmon Effort, Catch, and Harvest



## Data collection via:

- Roving angler counts
- Roving angler interviews
- Access point interviews

# Overview of 2018 Central Valley Sport Fishery for Chinook Salmon\*

<b><i>Effort:</i></b>	794,812 angler hours
<b><i>Trips:</i></b>	202,682 angling days
<b><i>Total catch:</i></b>	31,174 salmon
<b><i>Harvest:</i></b>	26,131 salmon
<b><i>Released:</i></b>	5,043 salmon
<b><i>Pct. retention:</i></b>	84%
<b><i>Catch rate:</i></b>	3.9 salmon per 100 angler hours



\* Based on fishery statistics for the American, Feather, Mokelumne and Sacramento rivers, July – December 2018.

# Raw Statistics

Contacted over 7,899 fishing parties

2,008 salmon reported kept

1,744 salmon observed

- or 6.7% of the Estimated Harvest

398 adipose fin-clipped, 23% of observed salmon

370 heads (93%) taken for CWT recovery



# Coded Wire Tag Recoveries

**361 CWTs (98%) successfully recovered and read**

Percent	Count	
48%	173	Feather River Hatchery fall run
18%	66	Coleman National Fish Hatchery fall run
13%	47	Coleman National Fish Hatchery late-fall run
11%	41	Mokelumne River Hatchery fall run
6%	21	Nimbus Hatchery fall run
3%	10	Feather River spring run
1%	2	San Joaquin spring run
0%	1	Livingston Stone National Fish Hatchery winter run



# Sacramento River Fall–Run Chinook Salmon (SRFC) Harvest

*Defined as any harvest of Chinook Salmon in the American, Feather, and Sacramento rivers*



*Excludes*

Harvest in the Mokelumne River

Harvest in the Late-fall-run Chinook Salmon fishery  
with a daily bag limit of 1 Chinook Salmon and 2 in possession

# SRFC Inland Harvest

SRFC comprised 96% of all Chinook Salmon harvest in the Central Valley in 2018



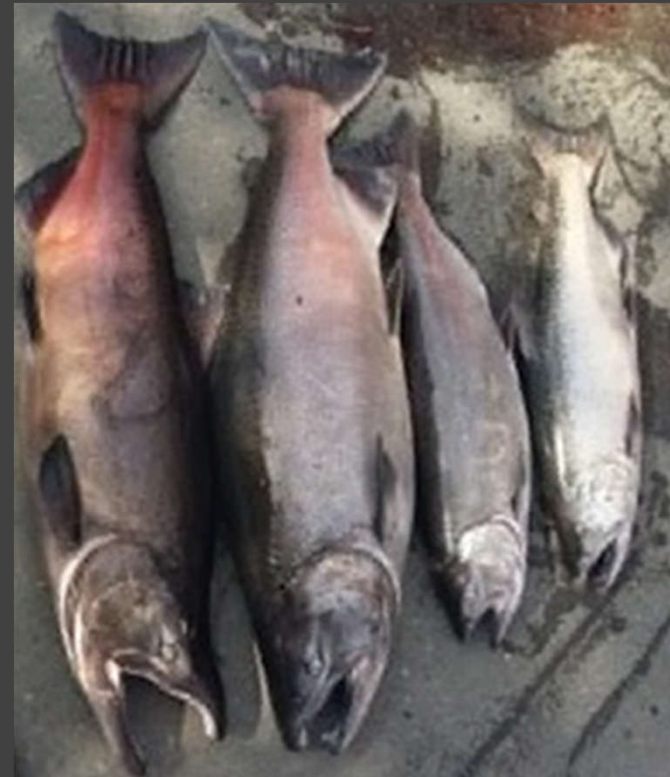
# Final SRFC Harvest Estimate

Nearly 35% of the harvest were grilse

16,274 adult

8,735 grilse

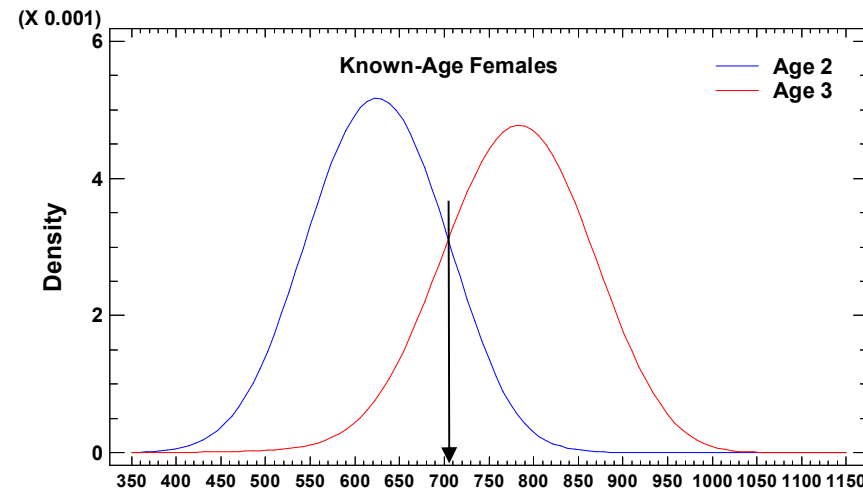
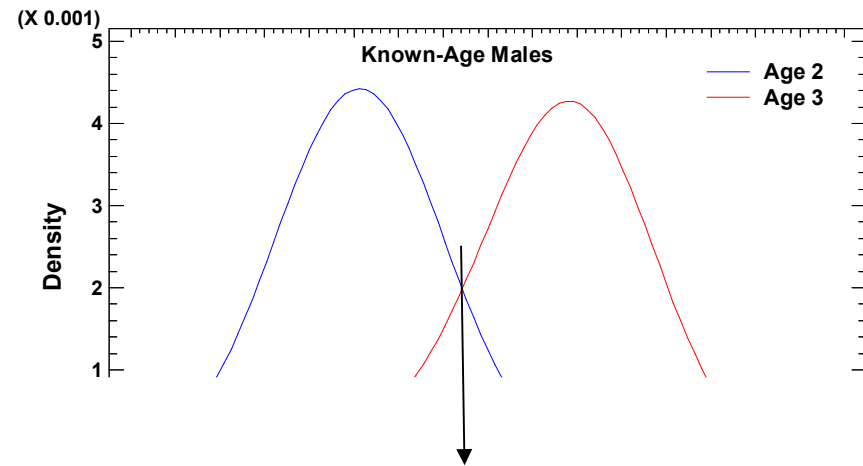
**25,009 Total SRFC**



# Grilse Cutoff

M

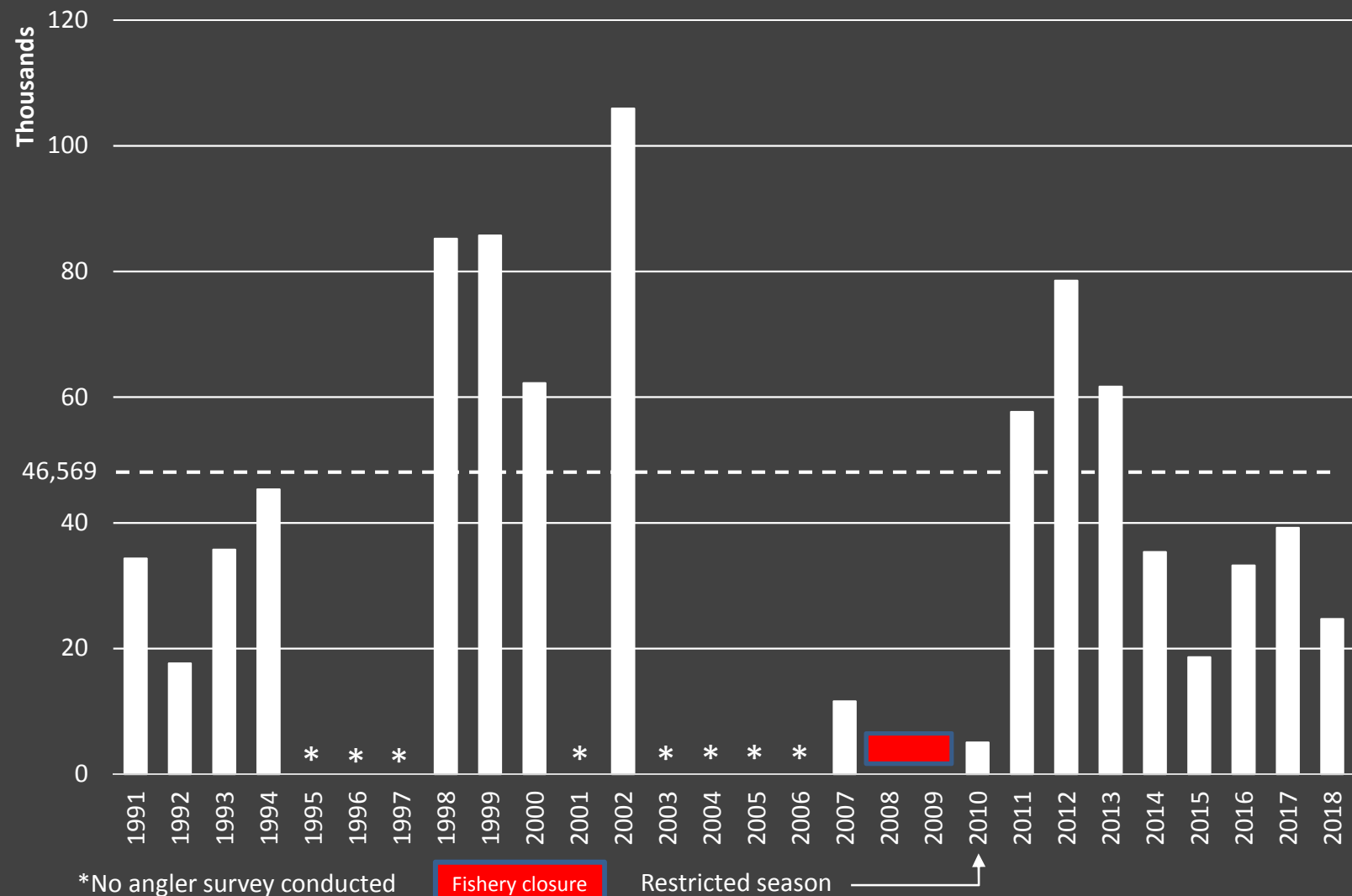
- Males
  - FL cutoff of 721
  - 50% Grilse
- Females
  - FL cutoff of 703
  - 16% Grilse





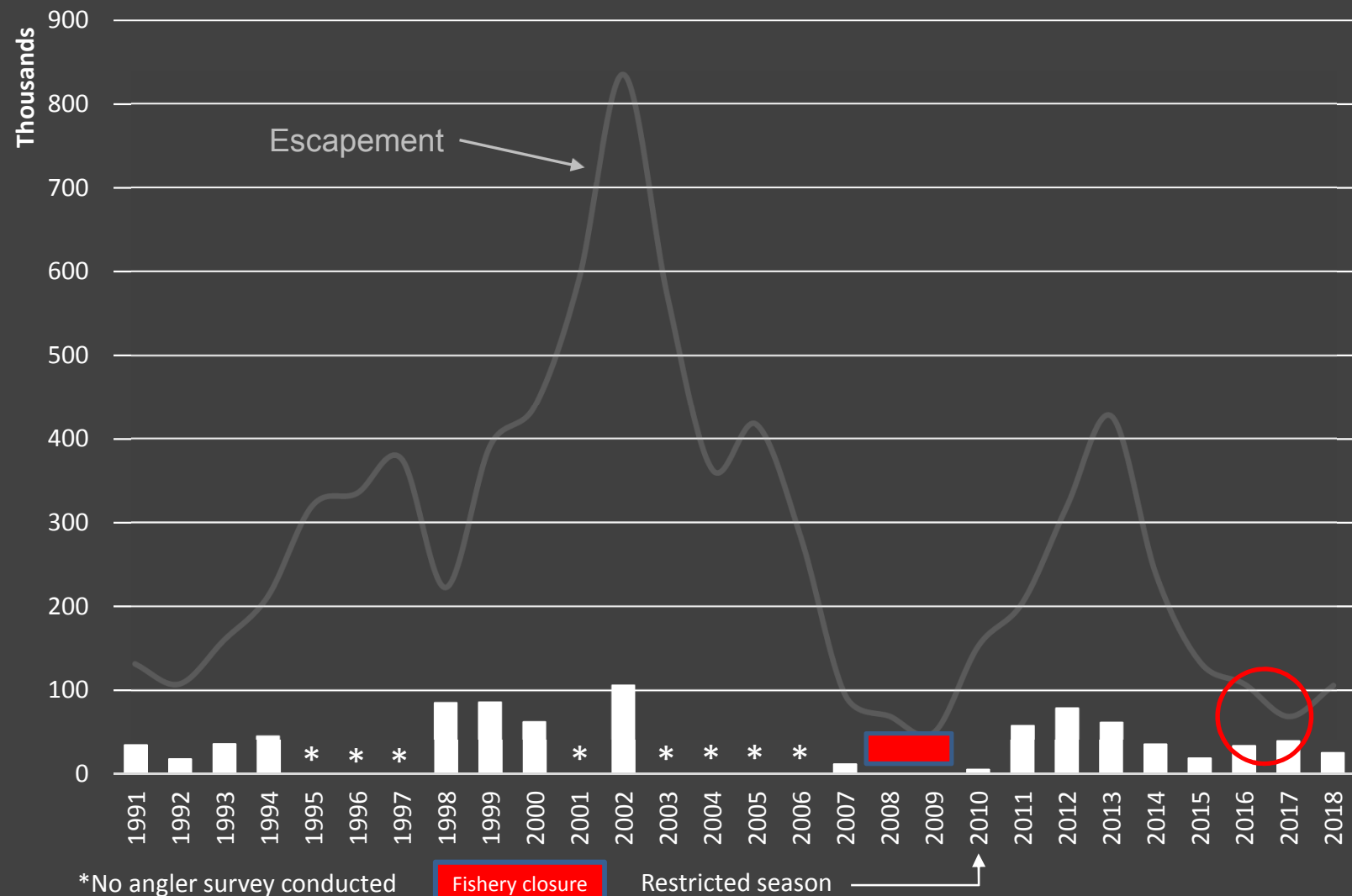
# SRFC Harvest Trend

Grilse + Adults

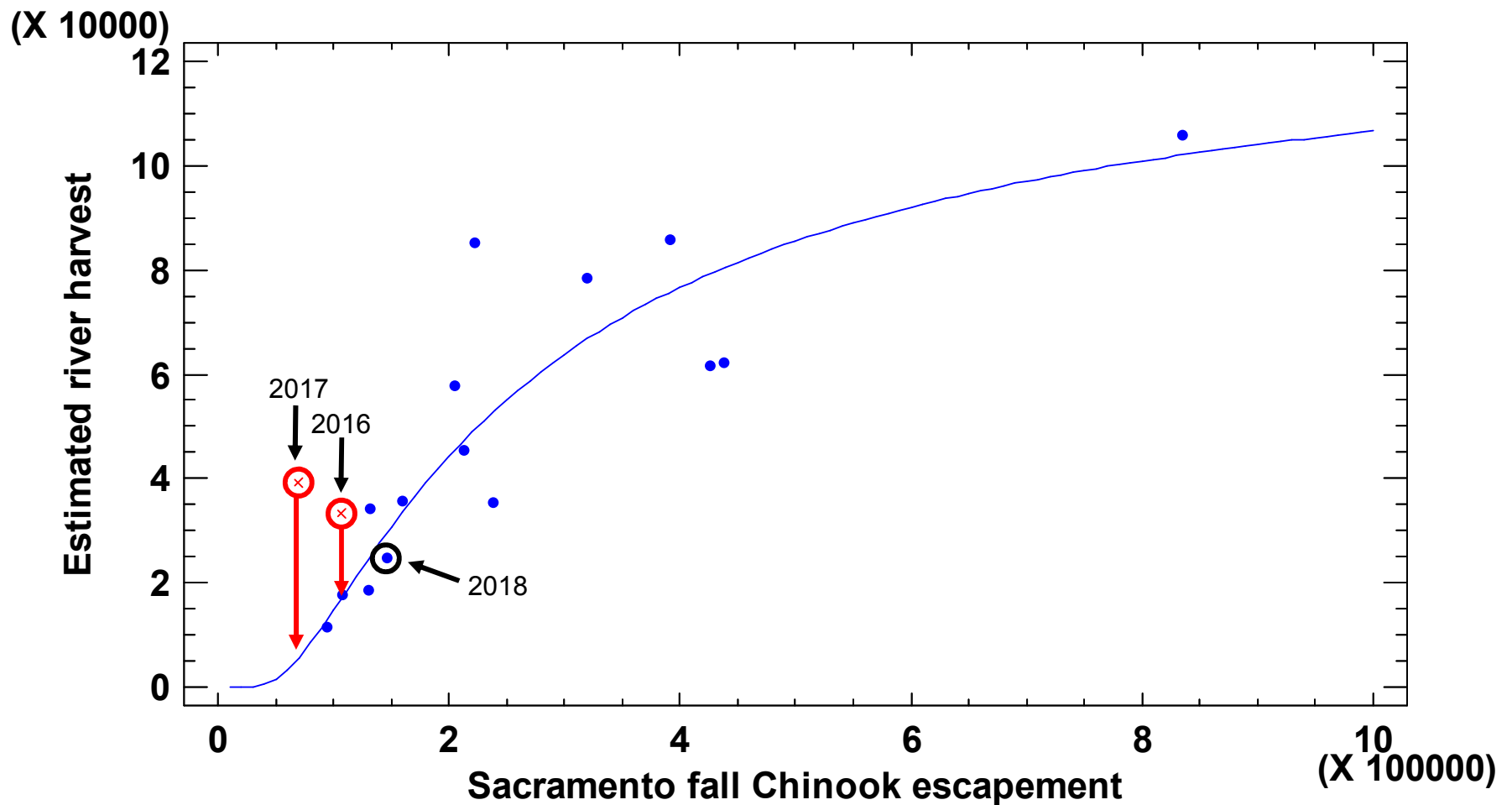


# SRFC Harvest Trend

Grilse + Adults



River harvest was slightly lower than expected  
in 2018 relative to escapement



# 2018 Sacramento River Late–Fall–Run Chinook Salmon Season

- Restricted to the Upper Sacramento River

Knights Landing to Deschutes  
Road Bridge

- Open November 1 – December 16
- Daily bag limit of 1 Chinook Salmon, 2 possession limit





# Sacramento River Late–Fall–Run Chinook Salmon Fishery



Salmon anglers at the Highway 113 bridge, Knights Landing. CDFW photo.

- *Effort:* 15,991 angler hours
- *Trips:* 4,078 angler trips
- *Catch rate:* 3.4 salmon per 100 angler hours
- *Harvest:* 474 salmon

# 2018 Mokelumne River Fall–Run Chinook Salmon Season

- Camanche Dam to Highway 12 overcrossing
  - Survey excluded Lake Lodi and a middle reach
- Open July 16 –  
December 16
- Daily bag limit of 2 Chinook Salmon, possession was 4 salmon



# Mokelumne River Fishery

## San Joaquin Fall–Run Chinook Salmon (SJRFC)



- *Effort:* 30,722 angler hours
- *Trips:* 7,834 angler trips
- *Catch rate:* 2.3 salmon per 100 angler hours
- *Harvest:* 648 salmon

# Hatchery vs. Natural Origin

Percent hatchery vs. natural origin by management zone<sup>1</sup>

	Hatchery	Natural
Lower Sacramento River	78%	22%
Upper Sacramento River	73%	27%
Feather River	71%	29%
American River	97%	3%
Mokelumne River	82%	18%
System-wide	74%	26%

<sup>1</sup> Based on expansions of coded-wire tag recoveries.



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Photo: Shawn Simkins, CDFW