

# ***CENTRAL VALLEY ANGLER SURVEY: 2014 Recreational Harvest of Chinook Salmon***



**Erin Collins, James Lyons & Rob Titus**

California Department of Fish and Wildlife  
Fisheries Branch  
Anadromous Resource Assessment  
Sacramento, California



# 2014 Central Valley Salmon Season

Open July 16<sup>th</sup>-December 16<sup>th</sup>

## Exceptions:

### Lower American River

July 16<sup>th</sup> –December 31

### Upper Sacramento River

August 1<sup>st</sup> to December 16<sup>th</sup>

RBDD to Dechutes Road Bridge

### Feather River

July 16<sup>th</sup> to October 15<sup>th</sup>

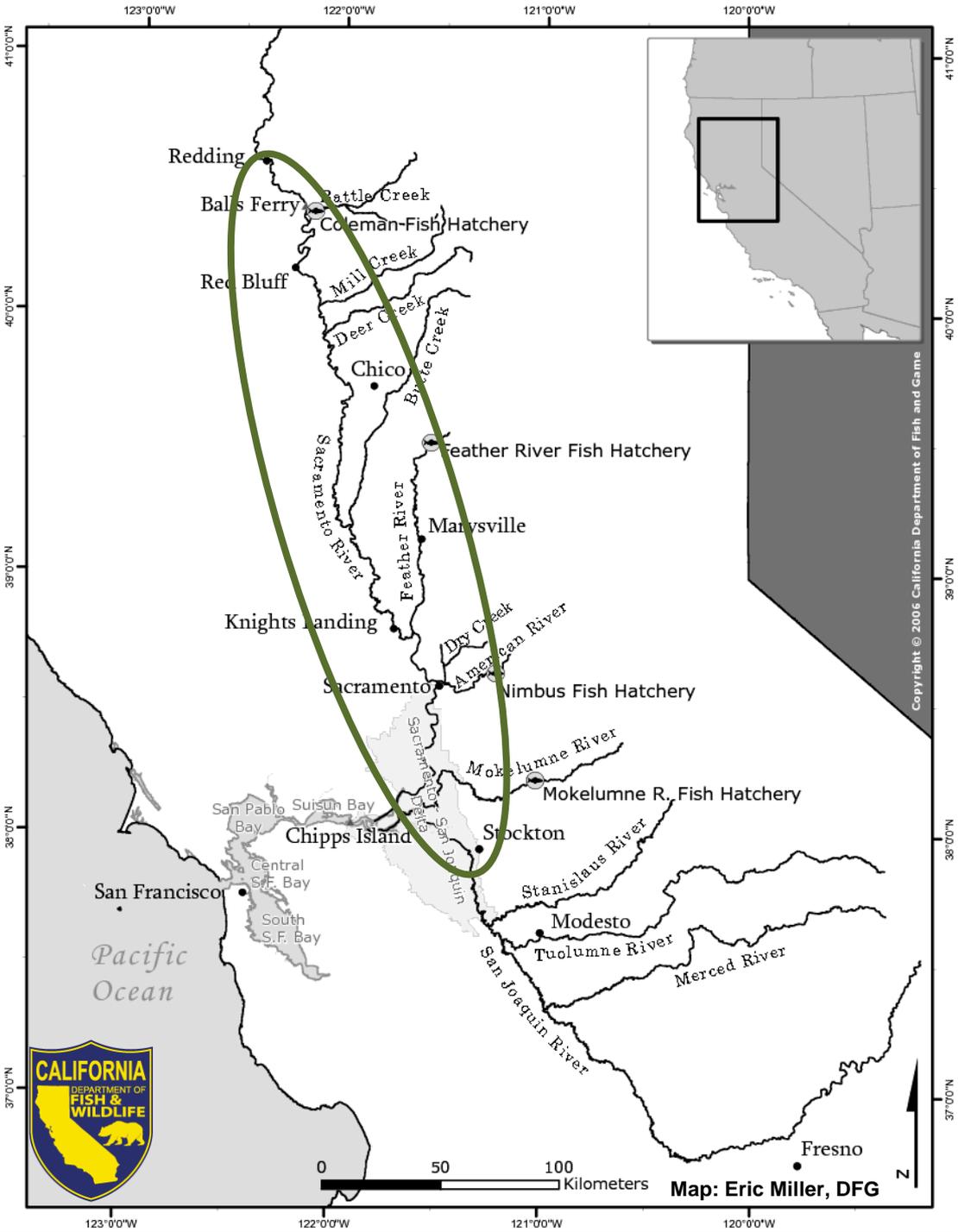
Low flow channel



# Central Valley Angler Survey



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



## Sampling Design:

- 25 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
- Coded Wire Tag (CWT) Recovery

# Overview of 2014 Central Valley Sport Fishery for Chinook Salmon\*

<b><i>Effort:</i></b>	969,496 angler hours
<b><i>Trips:</i></b>	187,887 angling days
<b><i>Total catch:</i></b>	70,469 salmon
<b><i>Harvest:</i></b>	42,449 salmon
<b><i>Release:</i></b>	28,020 salmon
<b><i>Pct retention:</i></b>	60 %
<b><i>Harvest rate:</i></b>	4 salmon per 100 angler hours



\* Based on fishery statistics for the American, Feather, Mokelumne and Sacramento rivers, July – December 2014.

# Raw Statistics

Contacted over 7,900 fishing parties

2,478 salmon reported kept

2,319 Salmon observed

- or 5.5% of the Estimated Harvest

507 adipose fin-clipped salmon, or 22%

496 heads taken for CWT recovery, or 98%



# Coded Wire Tag Recoveries

*493 CWTs successfully recovered and read*

- 32.0% Feather River Hatchery fall-run
- 31.0% Coleman National Fish Hatchery fall-run
- 14.0% Nimbus Hatchery fall-run
- 12.0% Mokelumne River Hatchery fall-run
- 7.0% Feather River spring-run
- 3.0% Coleman National Fish Hatchery late-fall-run
- 0.6% Merced River Fish Facility fall-run
- 0.0% 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  
Known non-SRFC from the recovery of coded wire tags

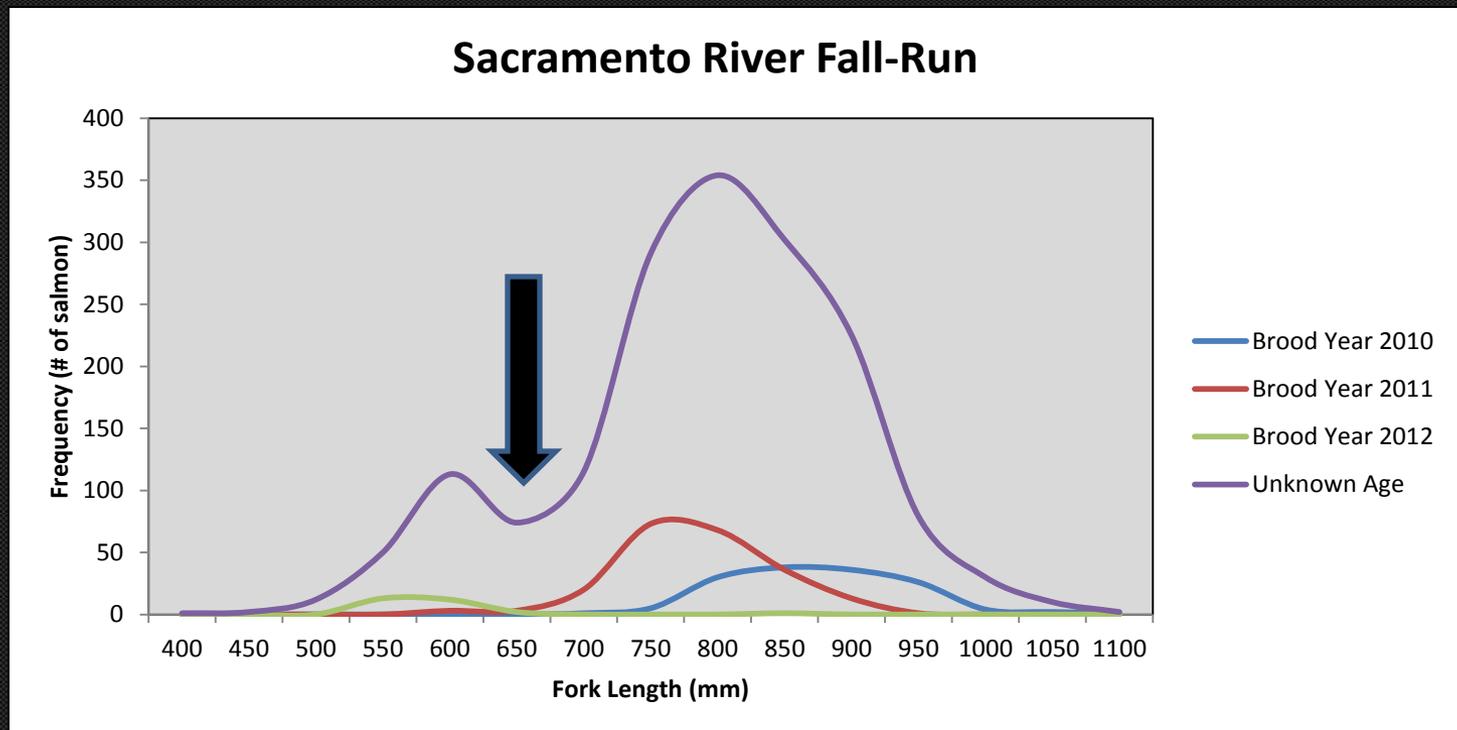
# SRFC Inland Harvest

40,752 SRFC in 2014, or 96% of all Chinook salmon harvest in the Central Valley



# Fork Length Frequency Analysis

Conducted for each management zone to determine the delineation between two year old (grilse) and older SRFC Chinook salmon.



# Grilse Composition Varied Between Management Zones

- 20% Lower Sacramento
- 17% American River
- 16% Feather River
- 6% Upper Sacramento



# Final SRFC Harvest Estimate

Overall 11% of the harvest were grilse

**36,176** adult SRFC

**4,576** grilse SRFC



# 2014 Sacramento River Late-Fall-Run Chinook Salmon Season

- Restricted to the Upper Sacramento River  
Knights Landing to Deschutes Road Bridge
- Open November 1<sup>st</sup> – December 16<sup>th</sup>
- Daily bag and possession limit of 2 Chinook salmon



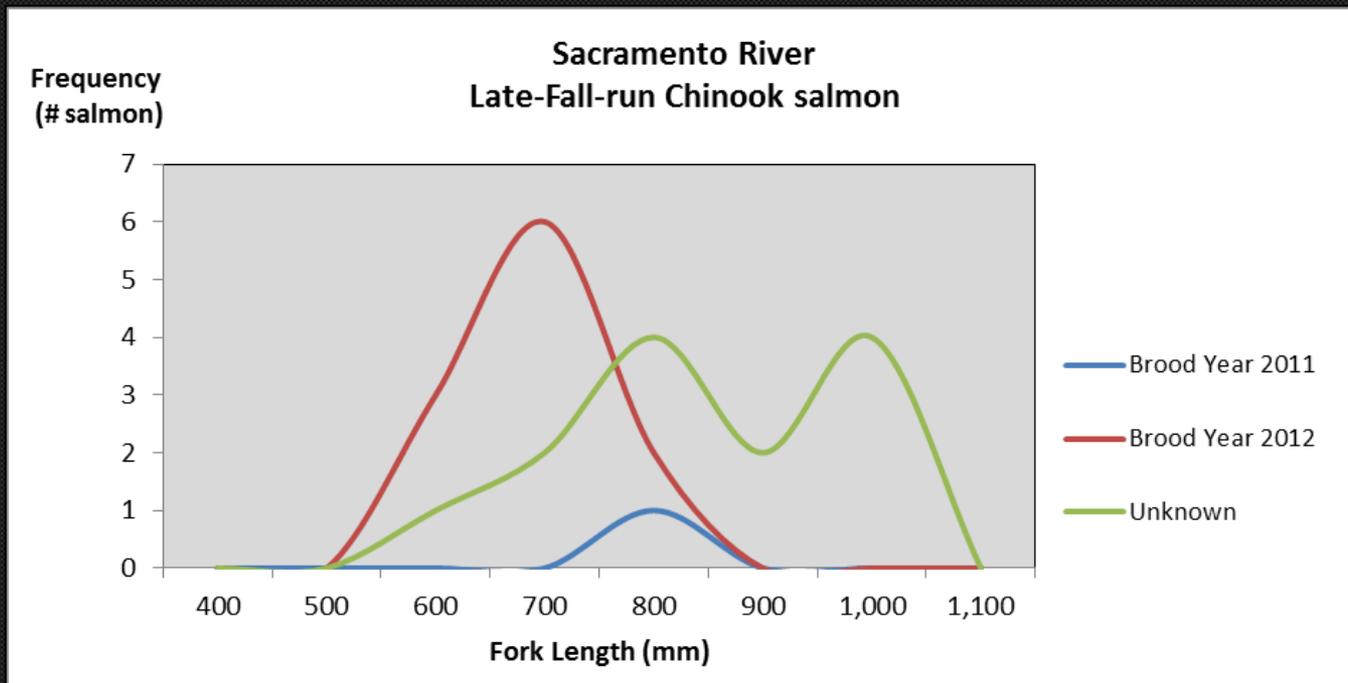
# Sacramento River Late-Fall-Run Chinook Salmon Fishery



- **Effort:** 10,207 angler hours
- **Trips:** 1,826 angler trips
- **Harvest:** 281 salmon
- **Harvest rate:** 3 salmon per 100 angler hours

# SRLFC Summary Statistics

- **38% Catch was of known hatchery origin**
  - 100% SRLFC
- **Fork Length Frequency Analysis**
  - Grilse cutoff difficult to determine (n=21 fish)



# 2014 Mokelumne River Fall-Run Chinook Salmon Season

- **Camanche Dam to Highway 12 overcrossing**
  - Survey excluded Lake Lodi and a middle reach.
- **Open July 16<sup>st</sup> – December 16<sup>th</sup>**
- **Daily bag and possession limit of 2 Chinook salmon**



# Mokelumne River Fishery

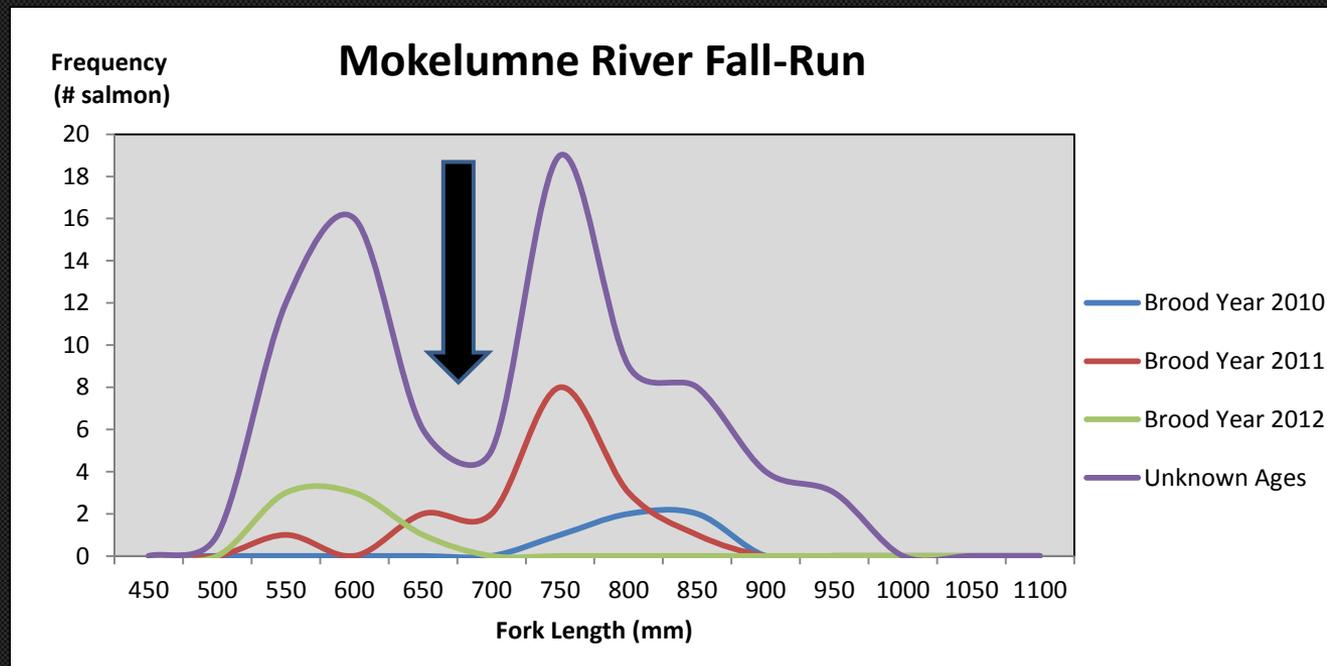
## San Joaquin Fall-Run Chinook Salmon (SJRFC)



- **Effort:** 29,915 angler hours
- **Trips:** 5,105 angler trips
- **Harvest:** 1,416 salmon
- **Harvest rate:** 5 salmon per 100 angler hours

# Mokelumne River Summary Statistics

- **35% Catch was of known hatchery origin**
  - 86% San Joaquin River Fall-run Chinook Salmon
  - 14% SRFC
- **Fork Length Frequency Analysis**
  - Grilse cutoff at 675 mm or 37% grilse



- **Final SJRFC Estimate: 892 adult, 524 grilse**

# *Contact Information*

- Erin Collins  
DFW / Central Valley Angler  
Survey -Sacramento  
(916) 227-5029  
[Erin.Collins@Wildlife.Ca.Gov](mailto:Erin.Collins@Wildlife.Ca.Gov)
- James Lyons  
DFW / Central Valley Angler  
Survey –Red Bluff  
(530) 529-3295  
[James.Lyons@Wildlife.Ca.Gov](mailto:James.Lyons@Wildlife.Ca.Gov)

