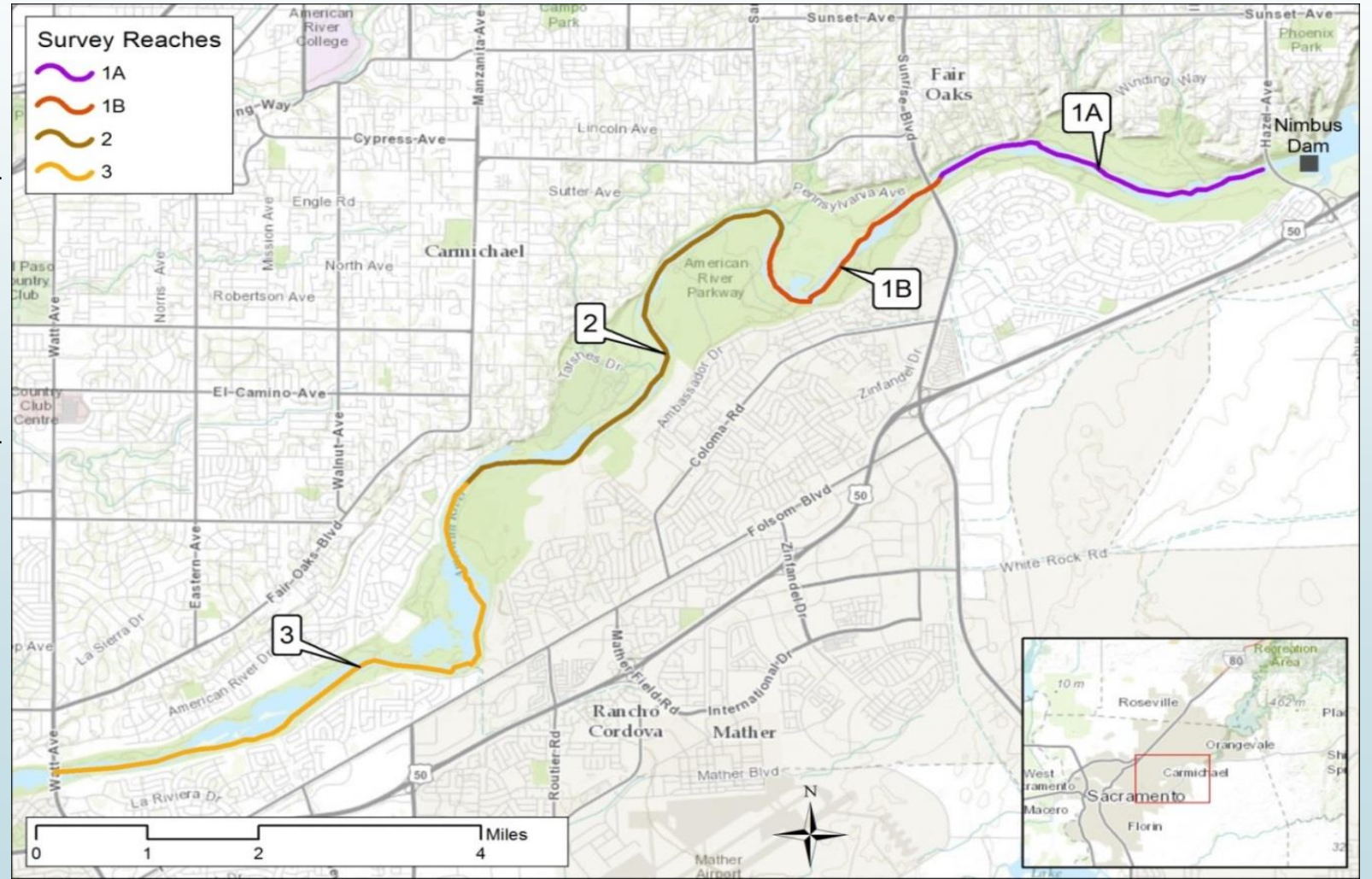
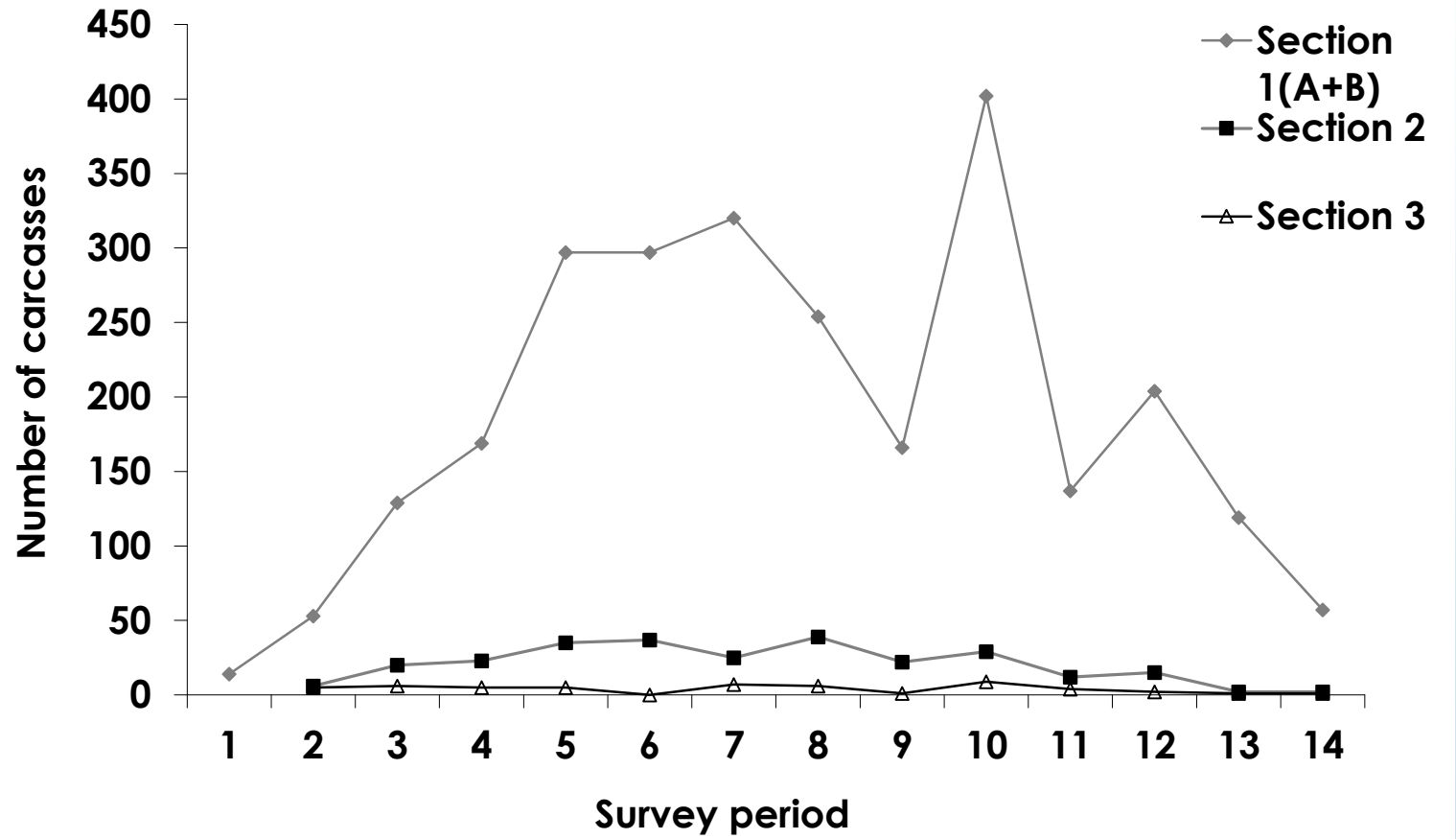
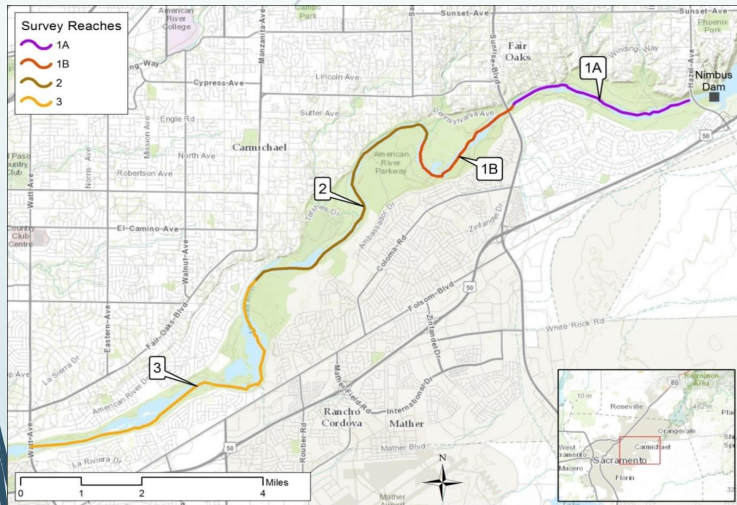


# 2017 LAR Fall-Run Chinook Salmon Escapement Survey

Section	Location	Miles
1A	Nimbus Hatchery Weir to Sunrise Blvd access	2.6
1B	Sunrise Blvd access to Elmanto Dr access	1.7
2	Elmanto Dr access to River Bend Park	4.7
3	River Bend Park to Watt Ave access	4.1
<b>Total</b>		<b>13.1</b>

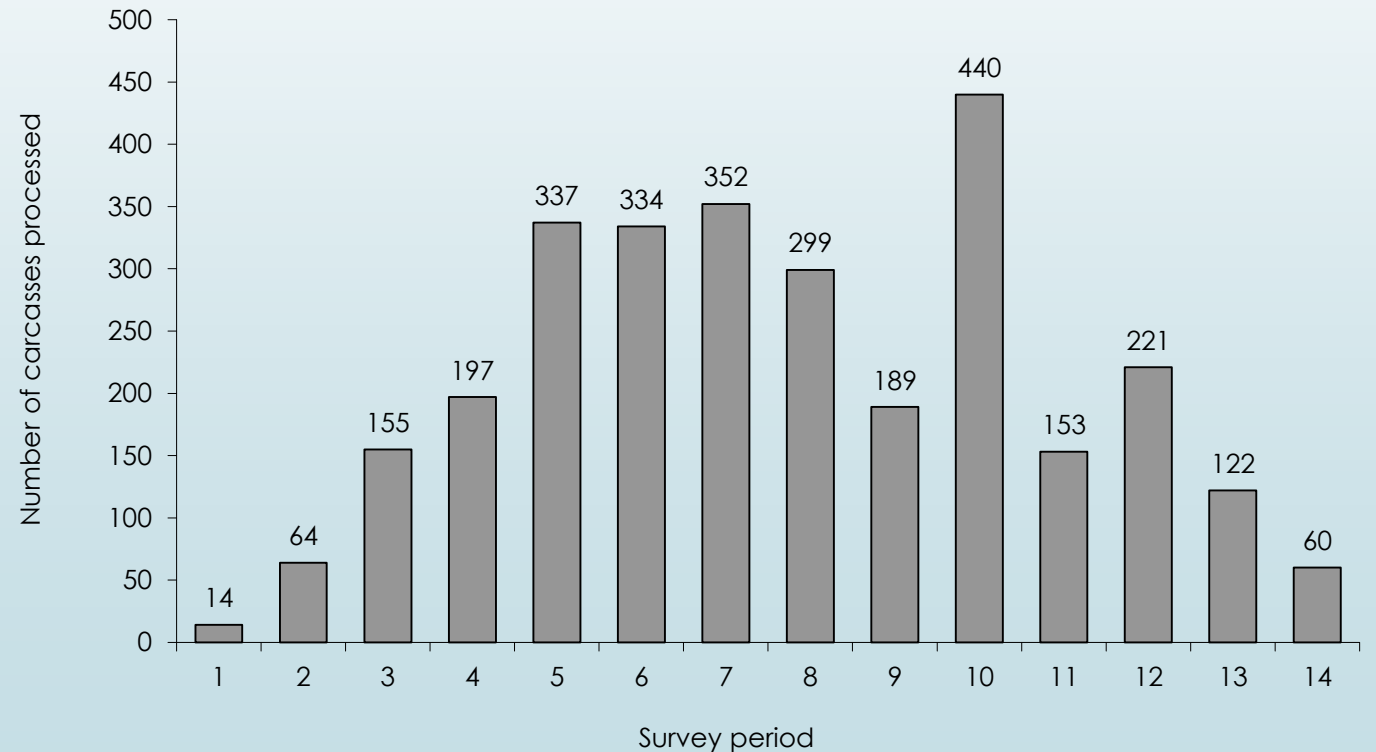


# Spatial Distribution

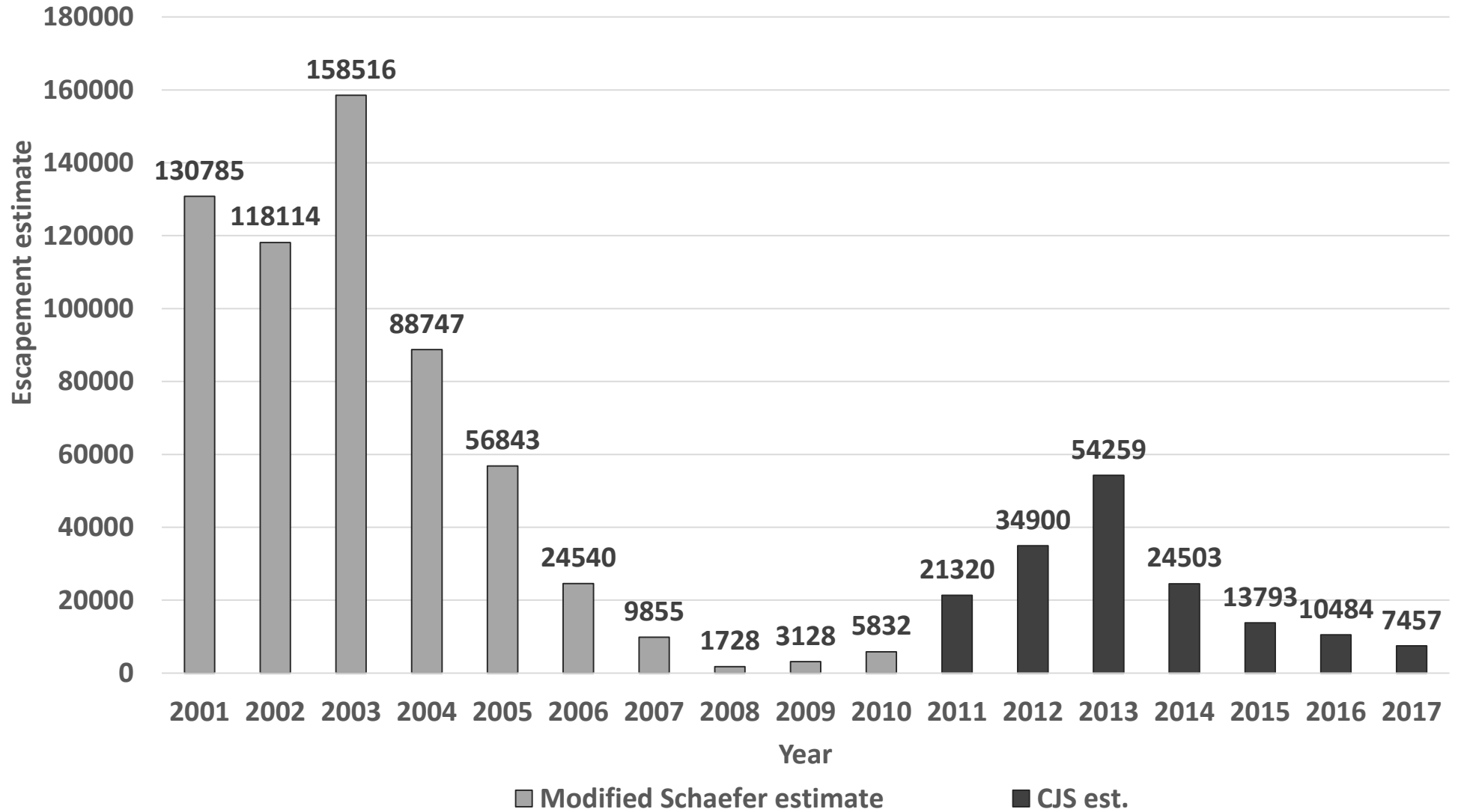


- A total of 2,937 Carcasses were processed
- Estimated In River escapement of 7,457
- 77% Adults and 23% Grilse

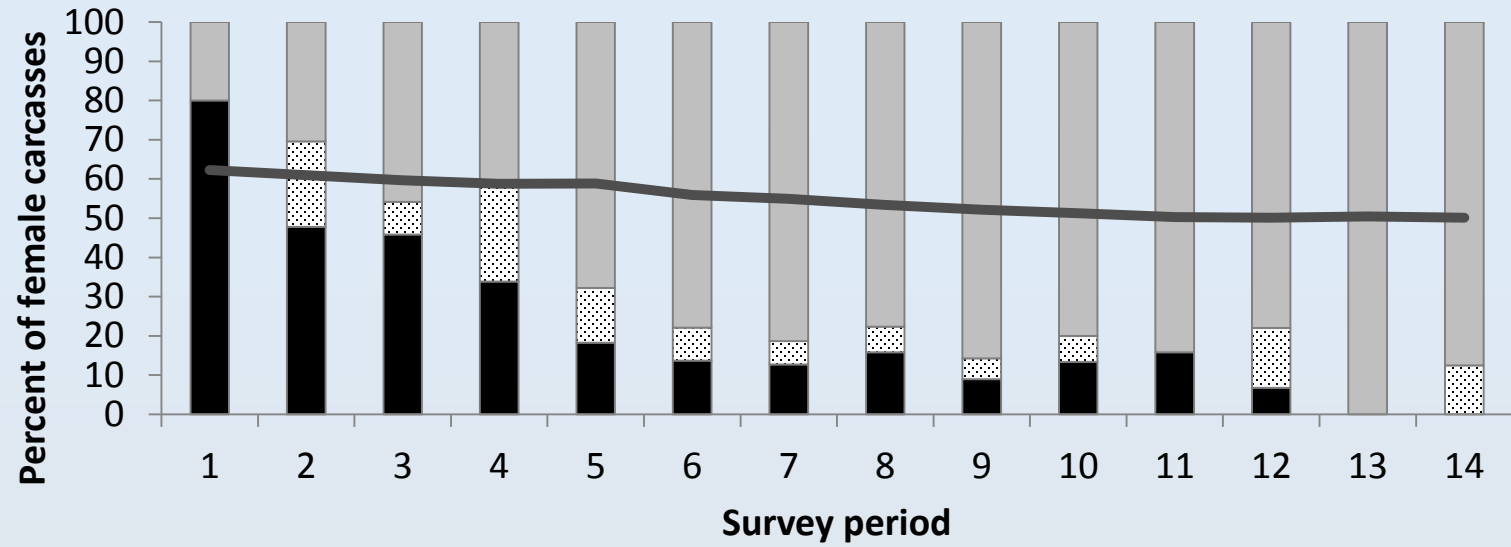
Survey period	Date range	Carcasses Sampled
1	Oct 17-19	14
2	Oct 23-27	64
3	Oct 30-Nov 2	155
4	Nov 6-9	197
5	Nov 13-16	337
6	Nov 20-22	334
7	Nov 27-Dec 30	352
8	Dec 4-7	299
9	Dec 11-14	189
10	Dec 18-21	440
11	Dec 27-29	153
12	Jan 2-5	221
13	Jan 8-11	122
14	Jan 16-19	60



# Escapement estimates from 2001 to 2017



## Female Spawn Status

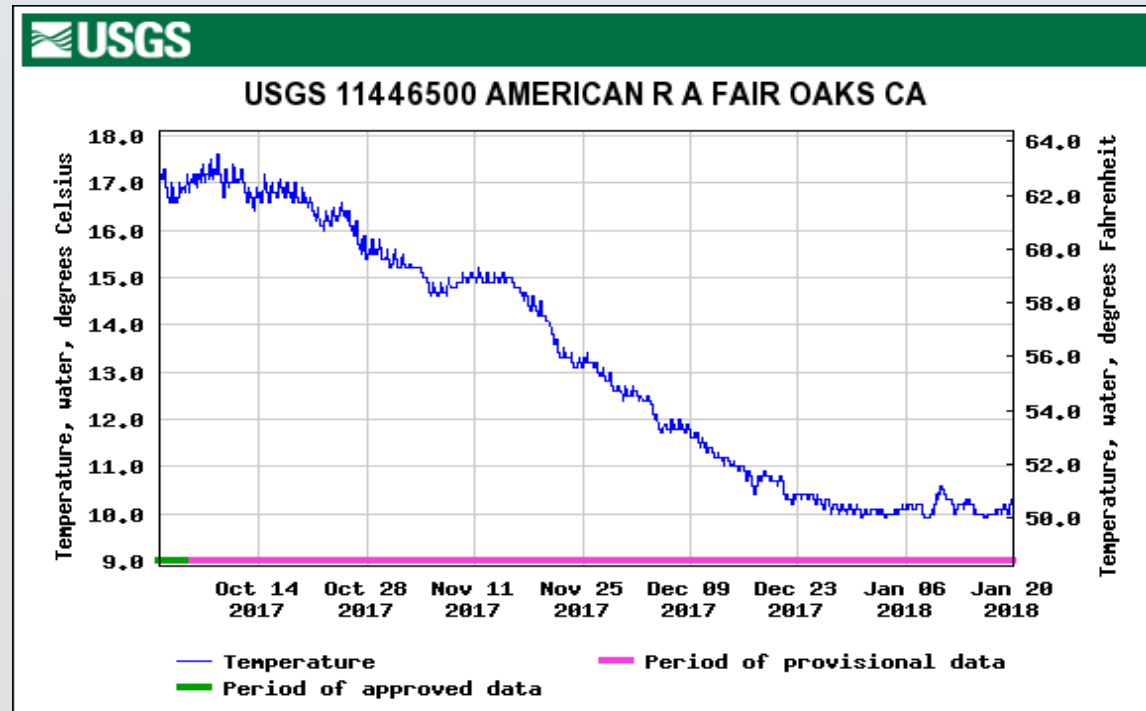


Egg to emergence

- 10-15 weeks
- 70-105 days

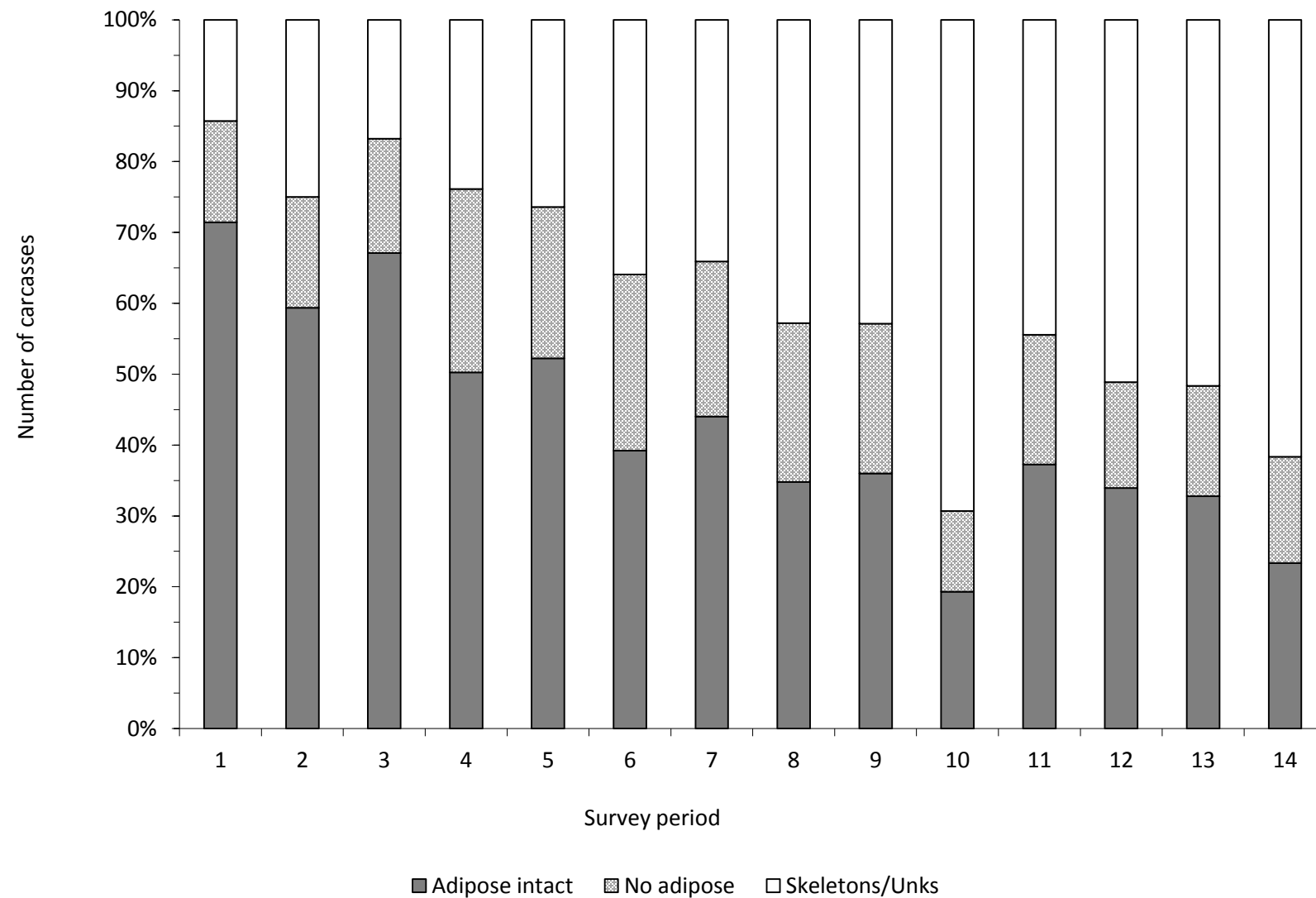
Increased water temp=Increased pre-spawn mortality

## Flow and Temps



# Adipose Fin Condition

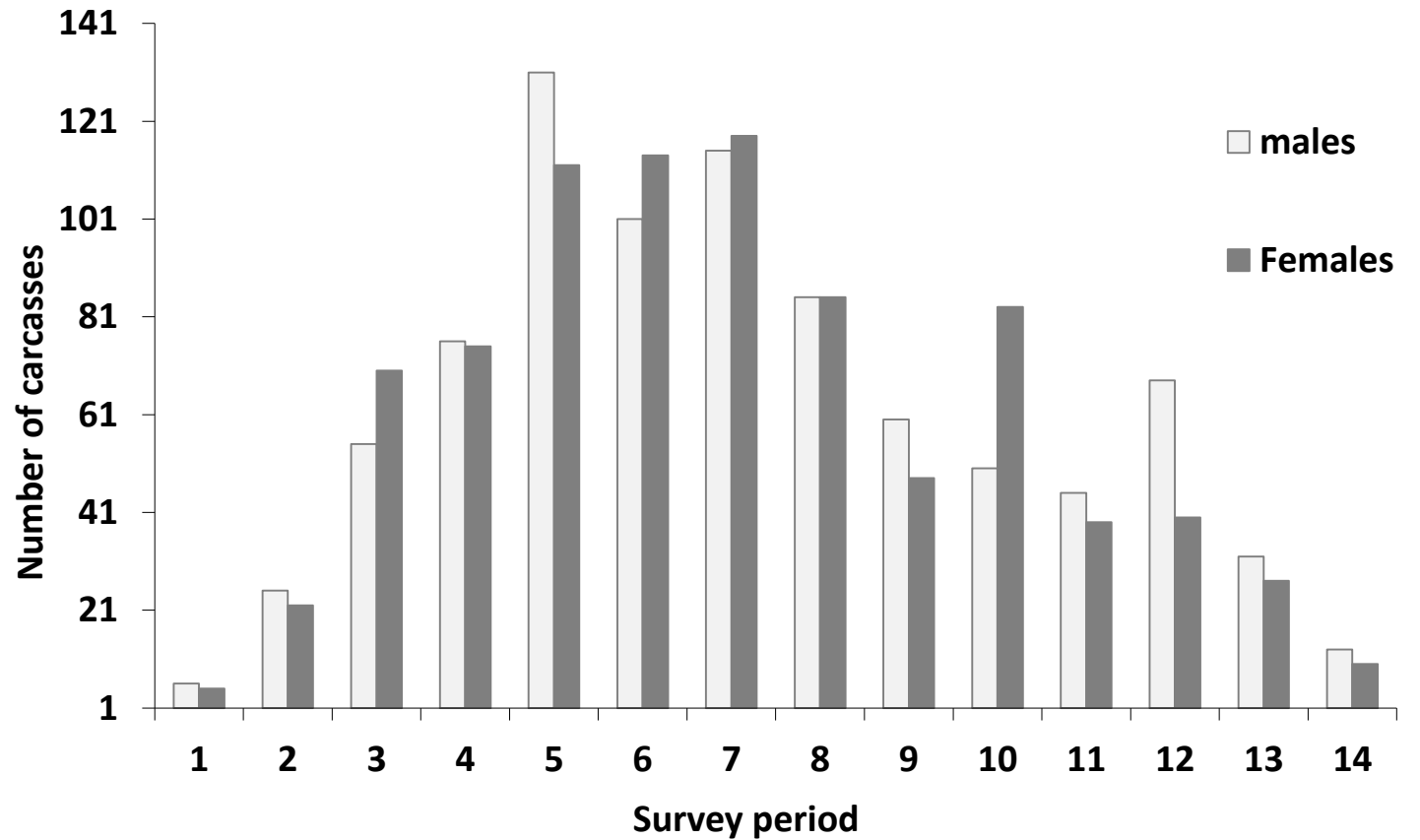
- 21% no-adipose  
N=631
- 572 heads were collected for CWT retrieval
- 29% (N=140) of the CWT recoveries originated from Nimbus Fish Hatchery with the remaining 71% from other basin hatcheries.
- 197 were from CNFH, 24 from FRFH, 10 from MRFF, and 111 from MRFI



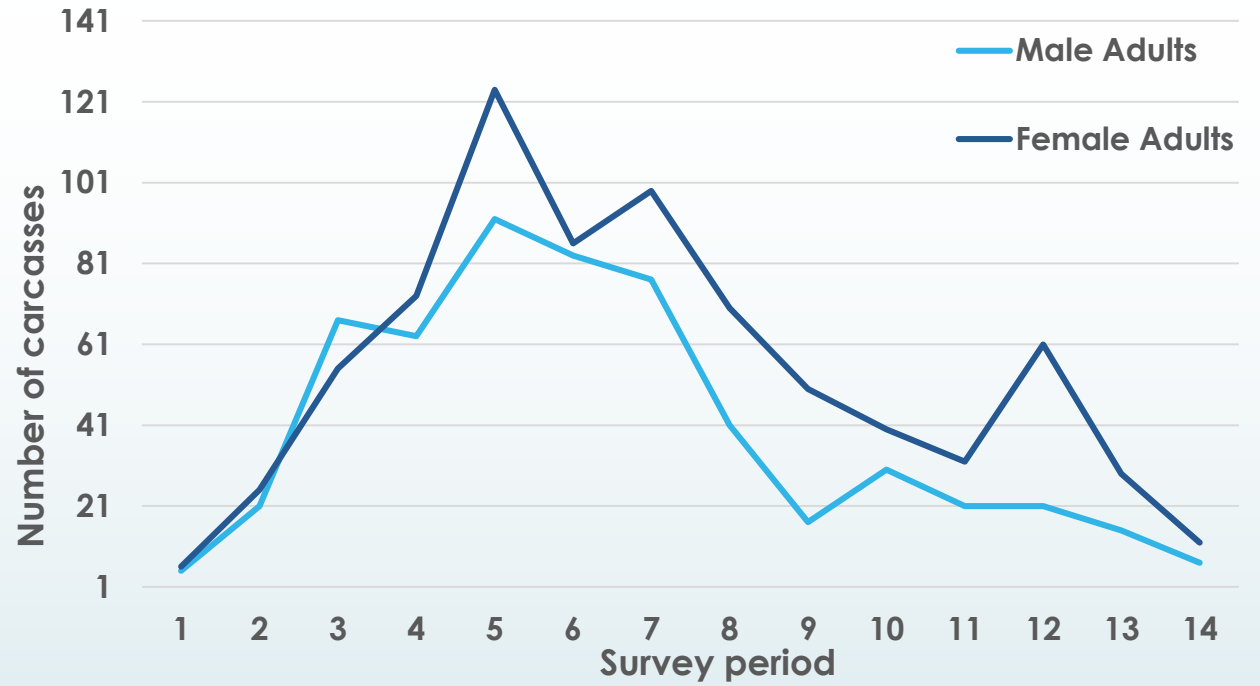
# Sex Ratios

Males- 50% N=848

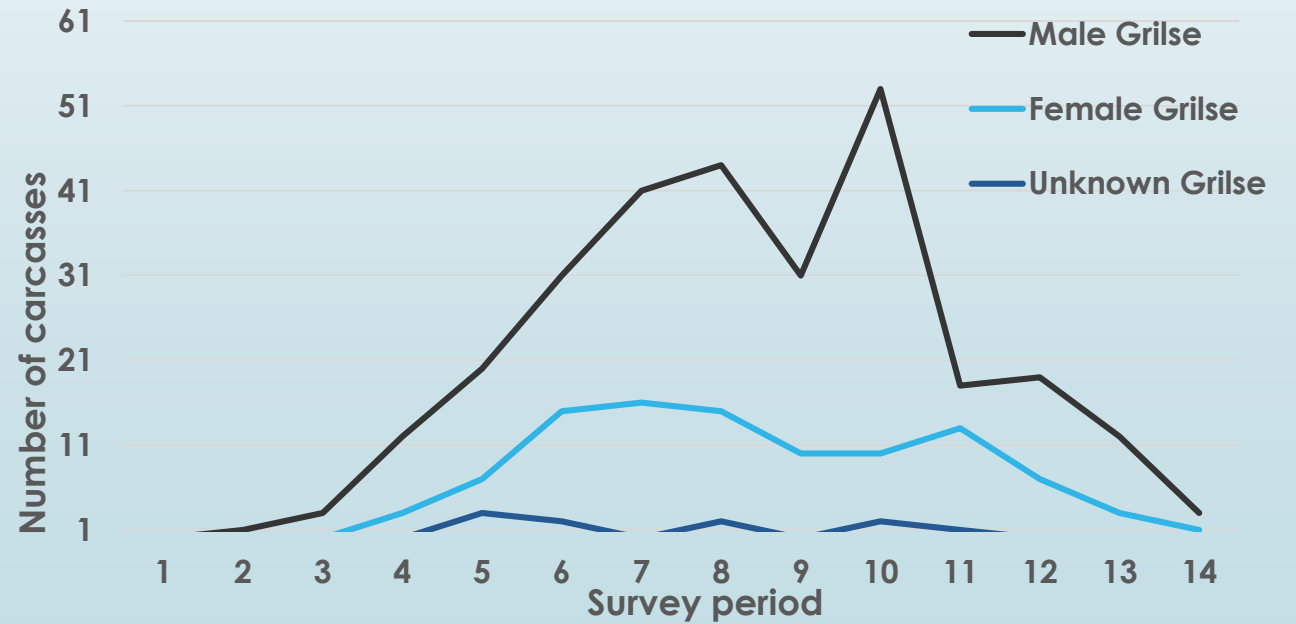
Females- 50% N=862



## Adult Sex Ratios

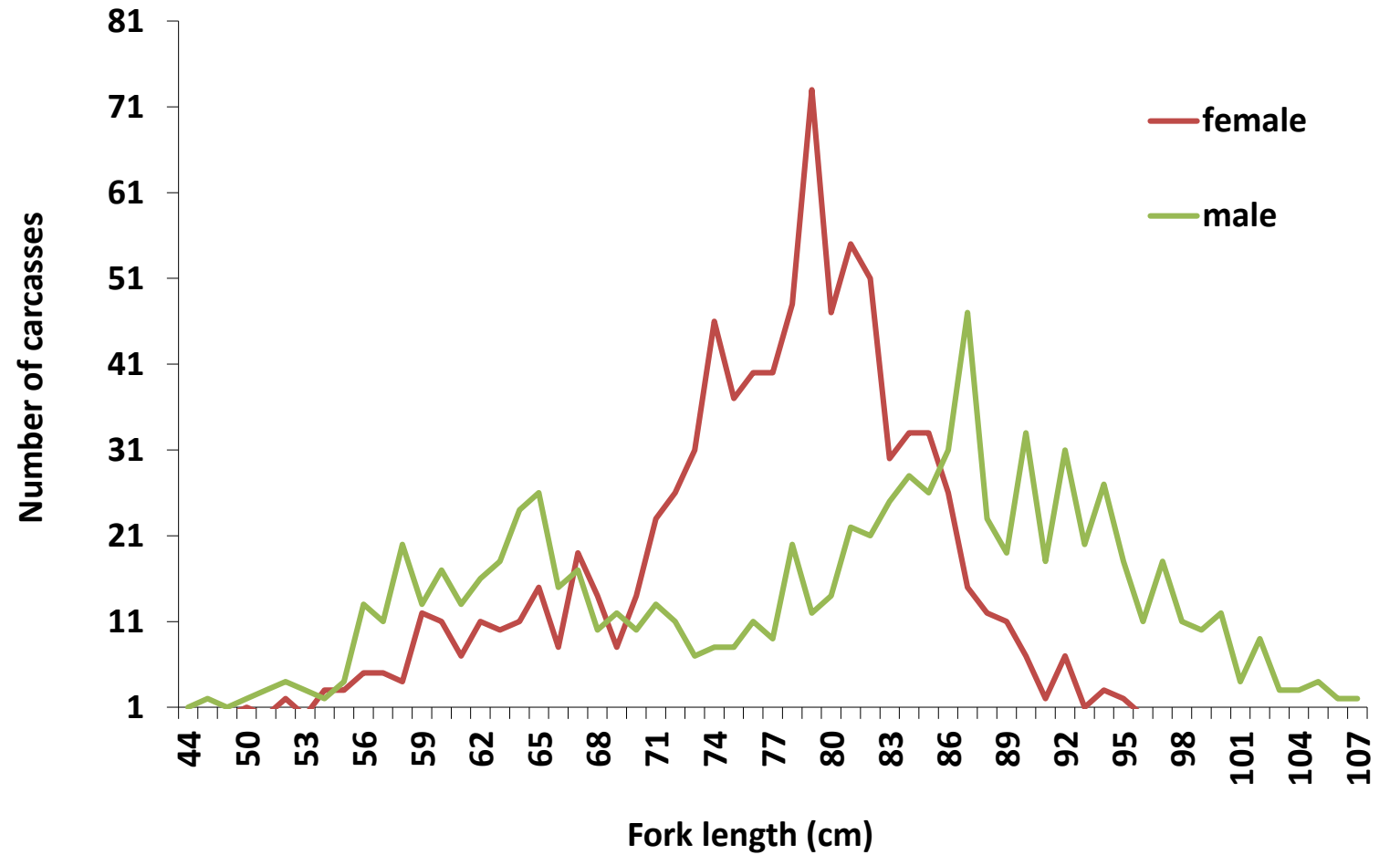


## Grilse Sex Ratios

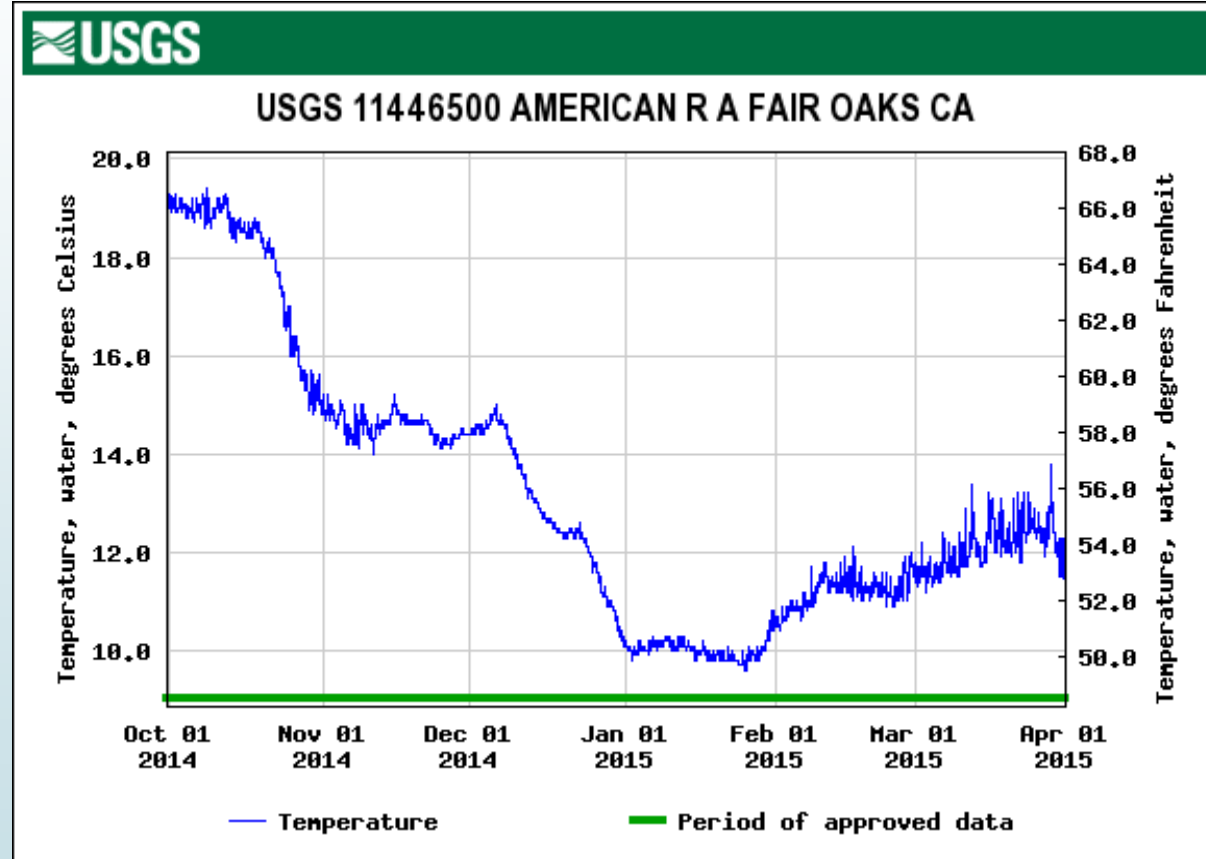
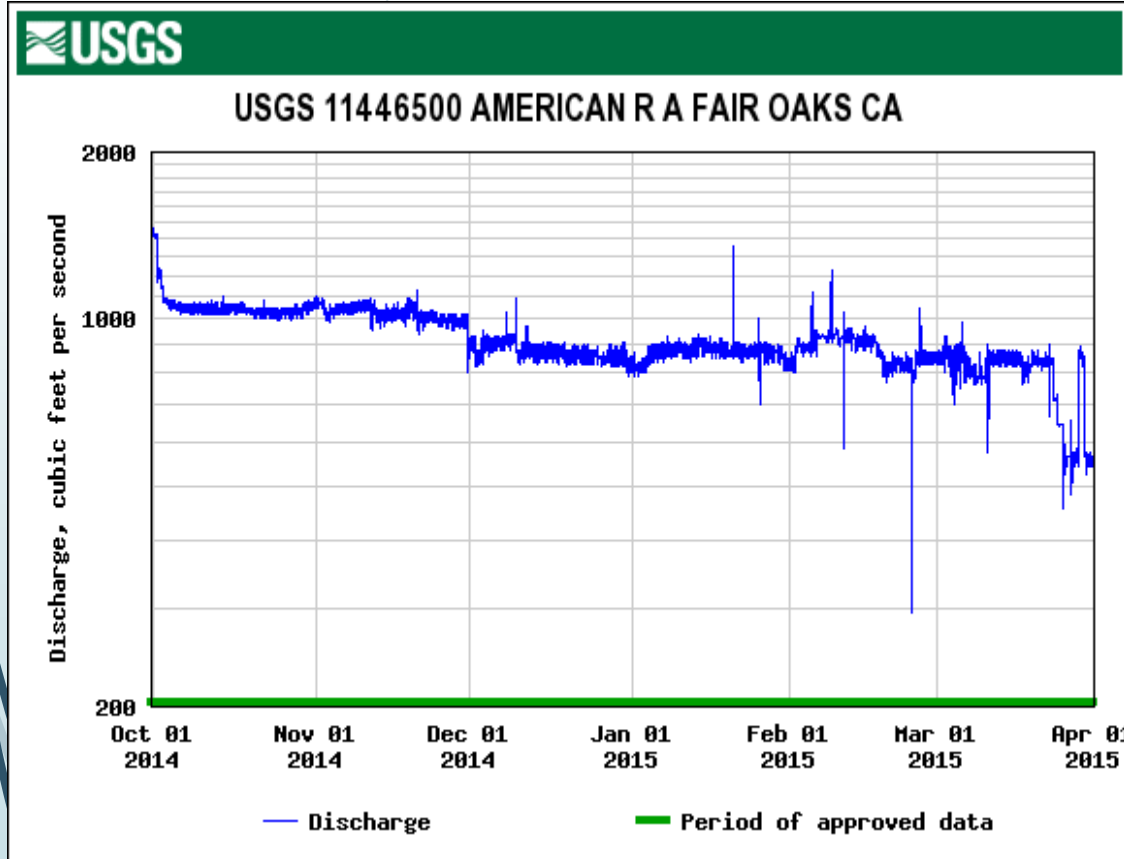




Fork length frequency by sex of carcasses.



## 2014 / 2015 discharge and temperature



Flows and Temperature in 2014/2015 were not ideal for emigration and outmigration of FRCS. Due to, increased water temperatures and low flows during critical migration, spawning, and rearing periods in the LAR.

# Escapement estimates from 2001 to 2017

