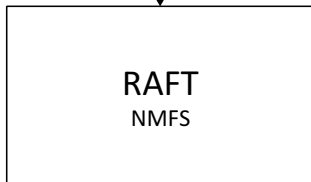




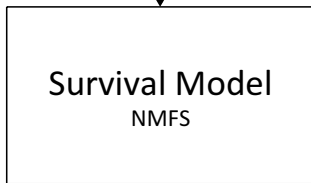
Temperature  
and flow  
scenarios

Keswick flow and temp

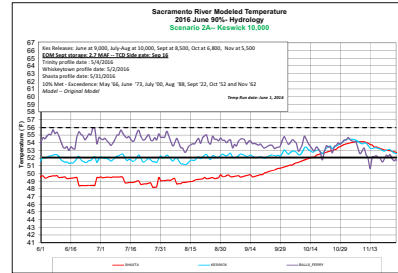


Temperature  
forecast for  
entire river

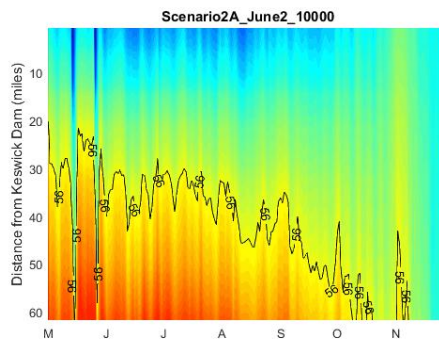
Egg temperature exposure



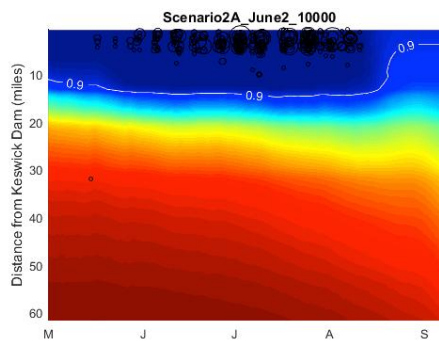
Temperature  
dependent  
egg survival



High  
uncertainty

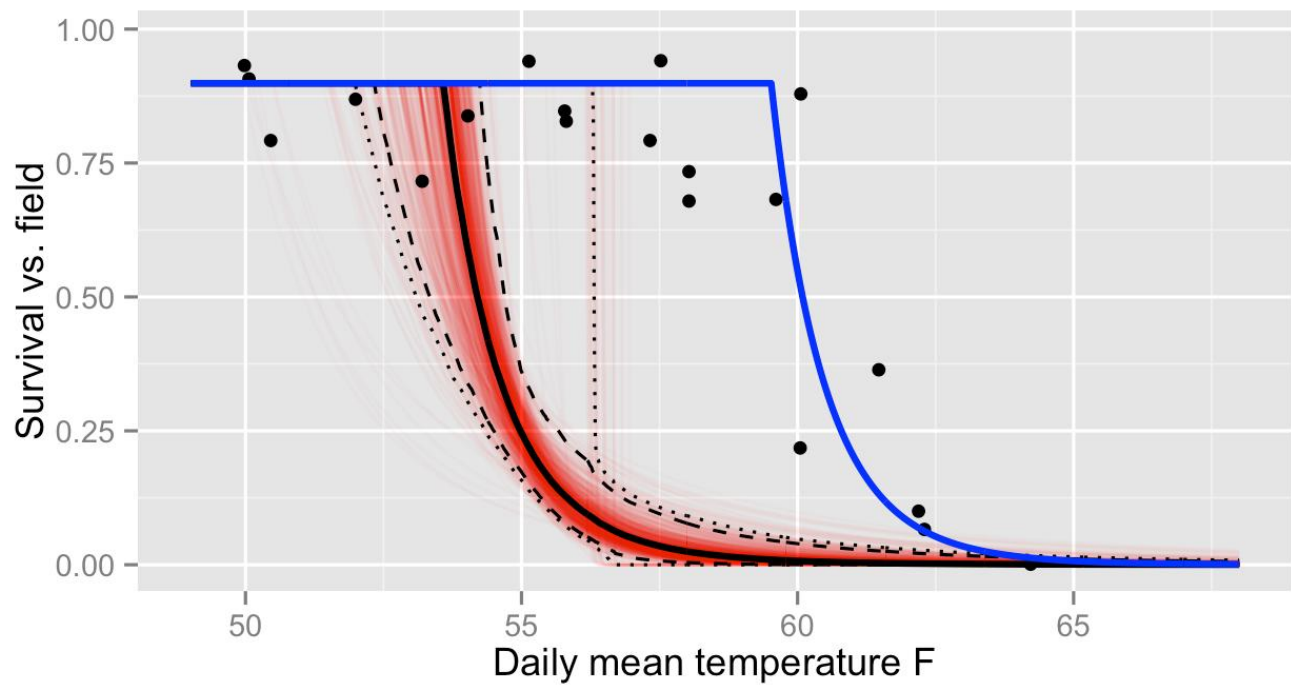


Low  
uncertainty



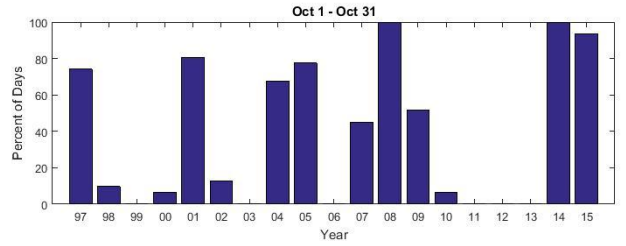
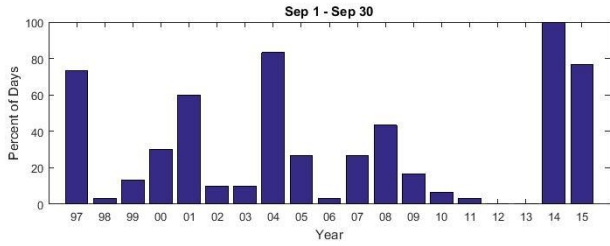
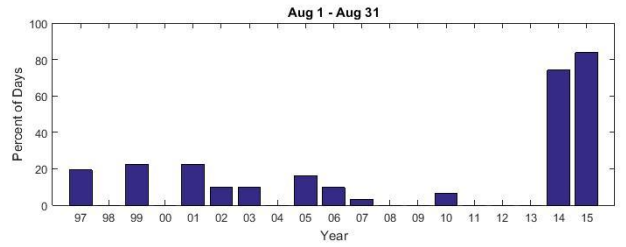
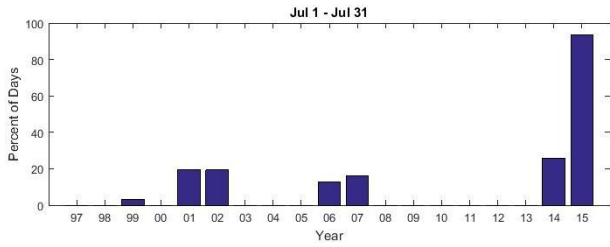
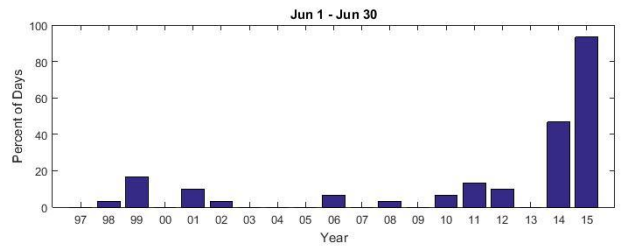
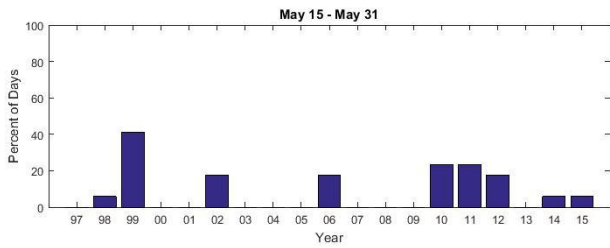
Low-  
Moderate  
uncertainty

## Mortality increases rapidly past the critical temperature



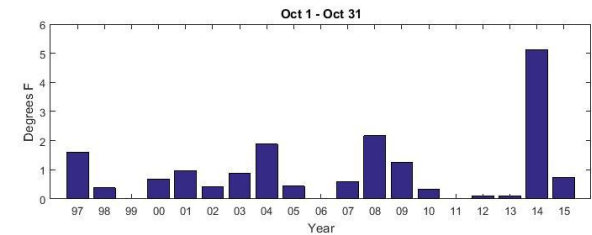
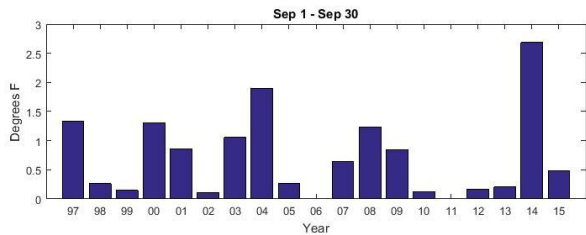
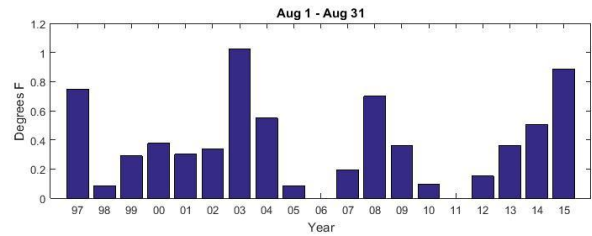
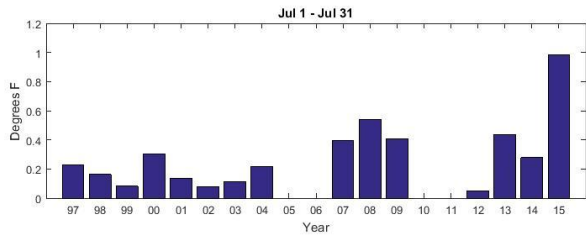
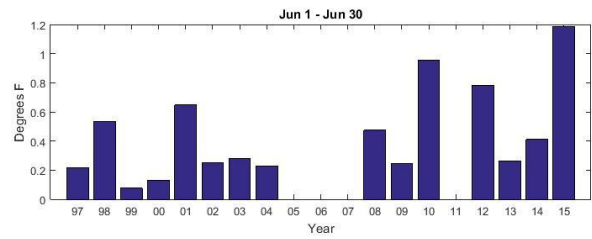
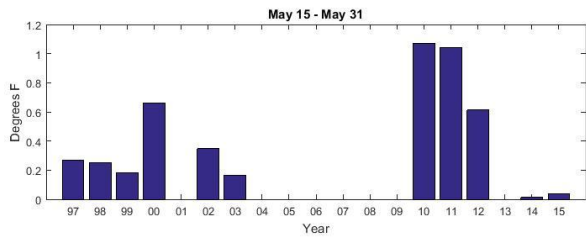
# Actual temperatures often exceed compliance targets set at start of season – frequency of exceedance

Percent of Days >56 Degrees at Changed Compliance Point (1997-2015)

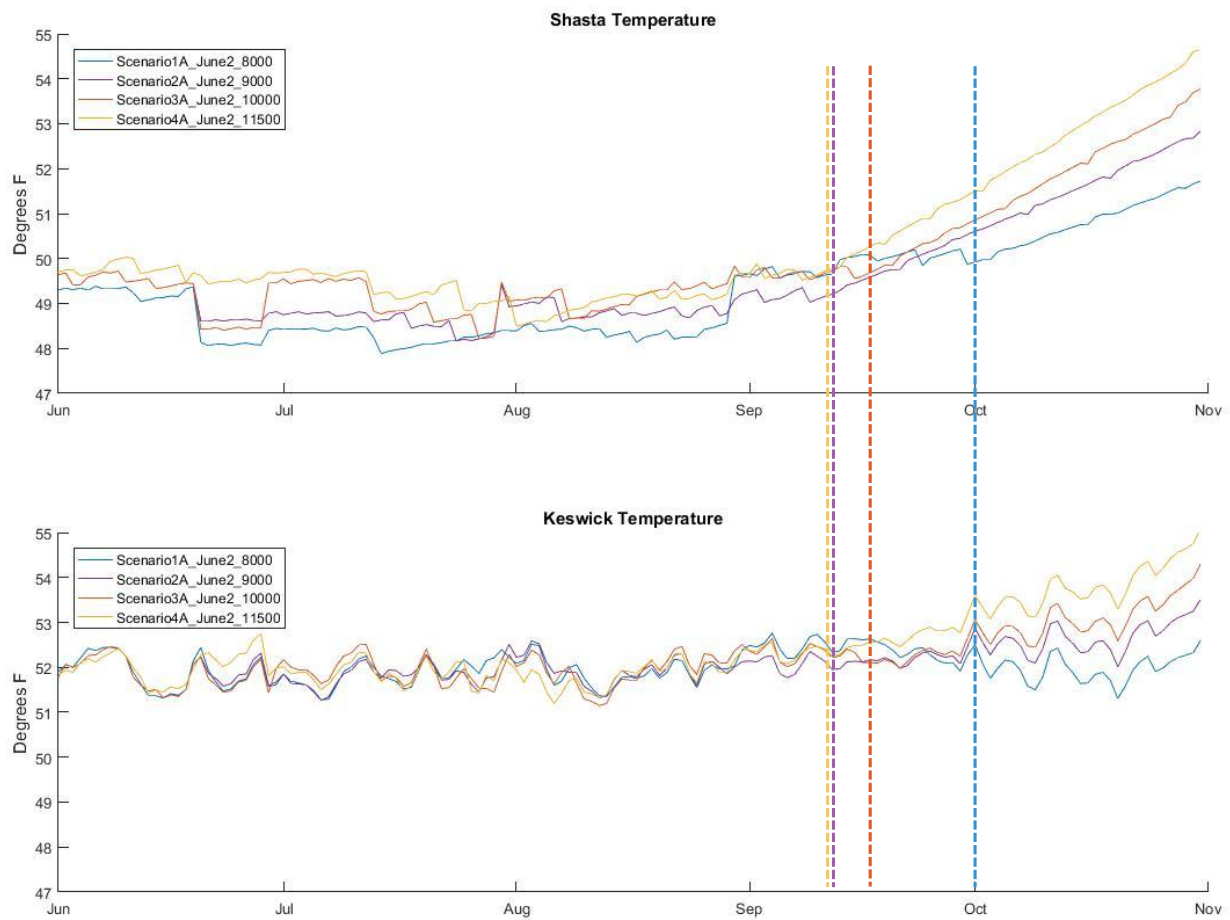


## Actual temperatures often exceed compliance targets set at start of season – magnitude of exceedance

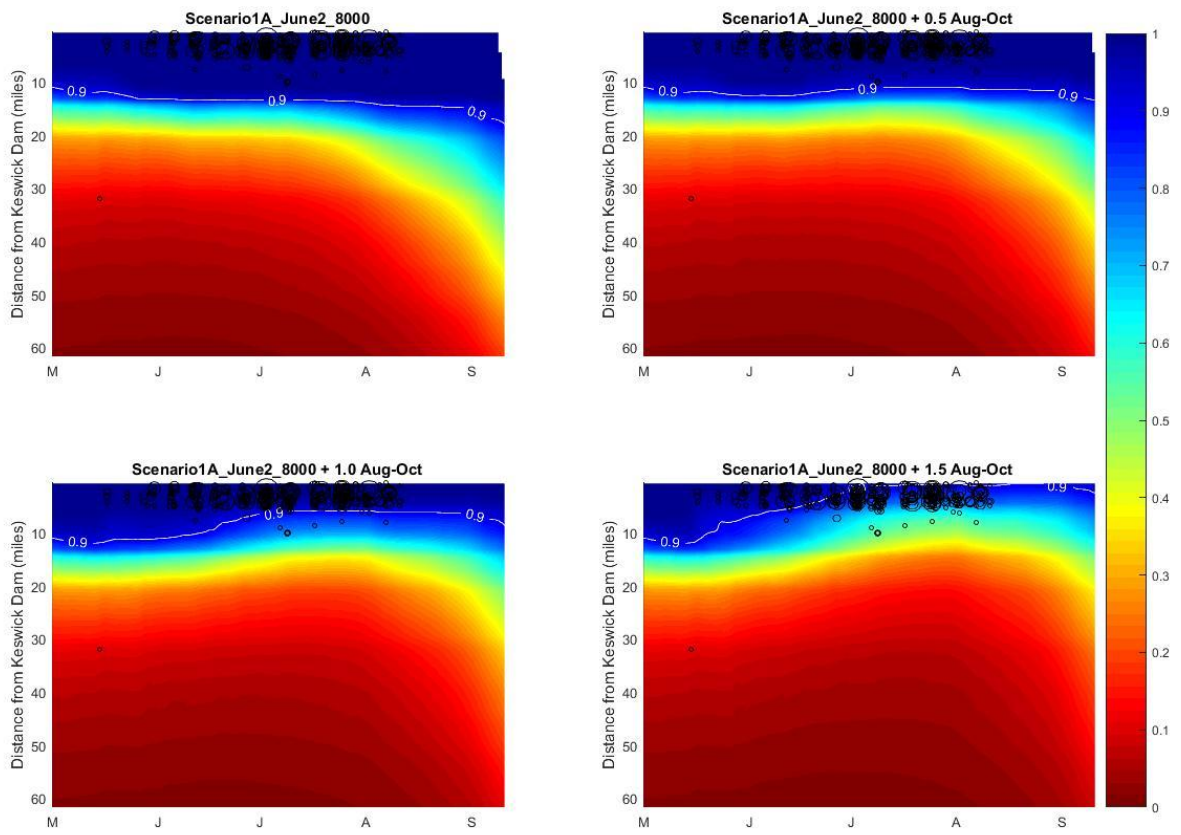
Average Degrees Above 56 at Start of Season Compliance Point (of Days that are >56)



## Temperatures increase rapidly after side gate operation



Predicted Survival using Median Survival Parameters



### Mortality Estimates from 1000 Monte Carlo Simulations

