

# JUVENILE SPRING CHINOOK MIGRATION IN THE NORTH SANTIAM RIVER AND USE OF DETROIT RESERVOIR

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# Objectives

- Evaluate migration timing and size of Chinook entering reservoir
- Vertical distribution near the forebay
  - Chinook and rainbow trout
- Migration timing and size of Chinook exiting reservoir



# Methods

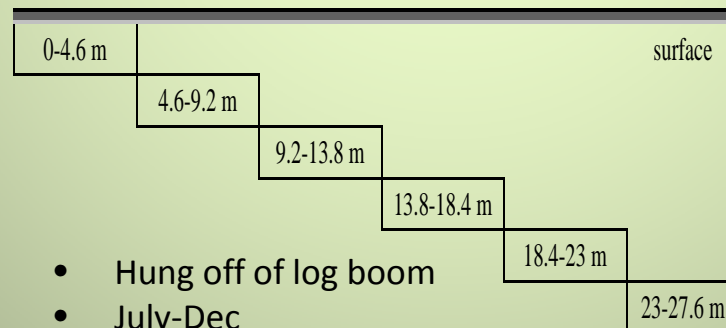
Above reservoir



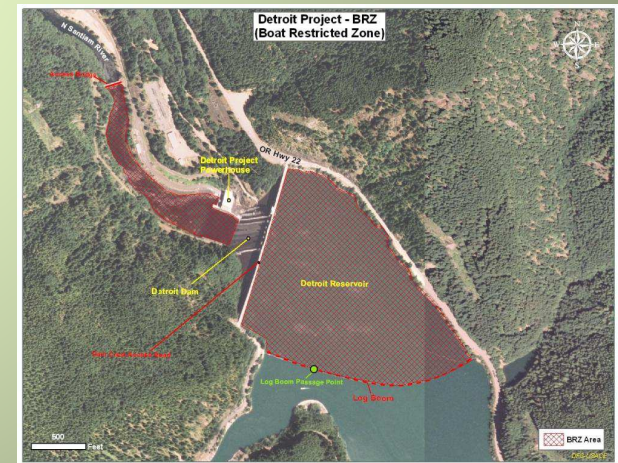
Below Detroit



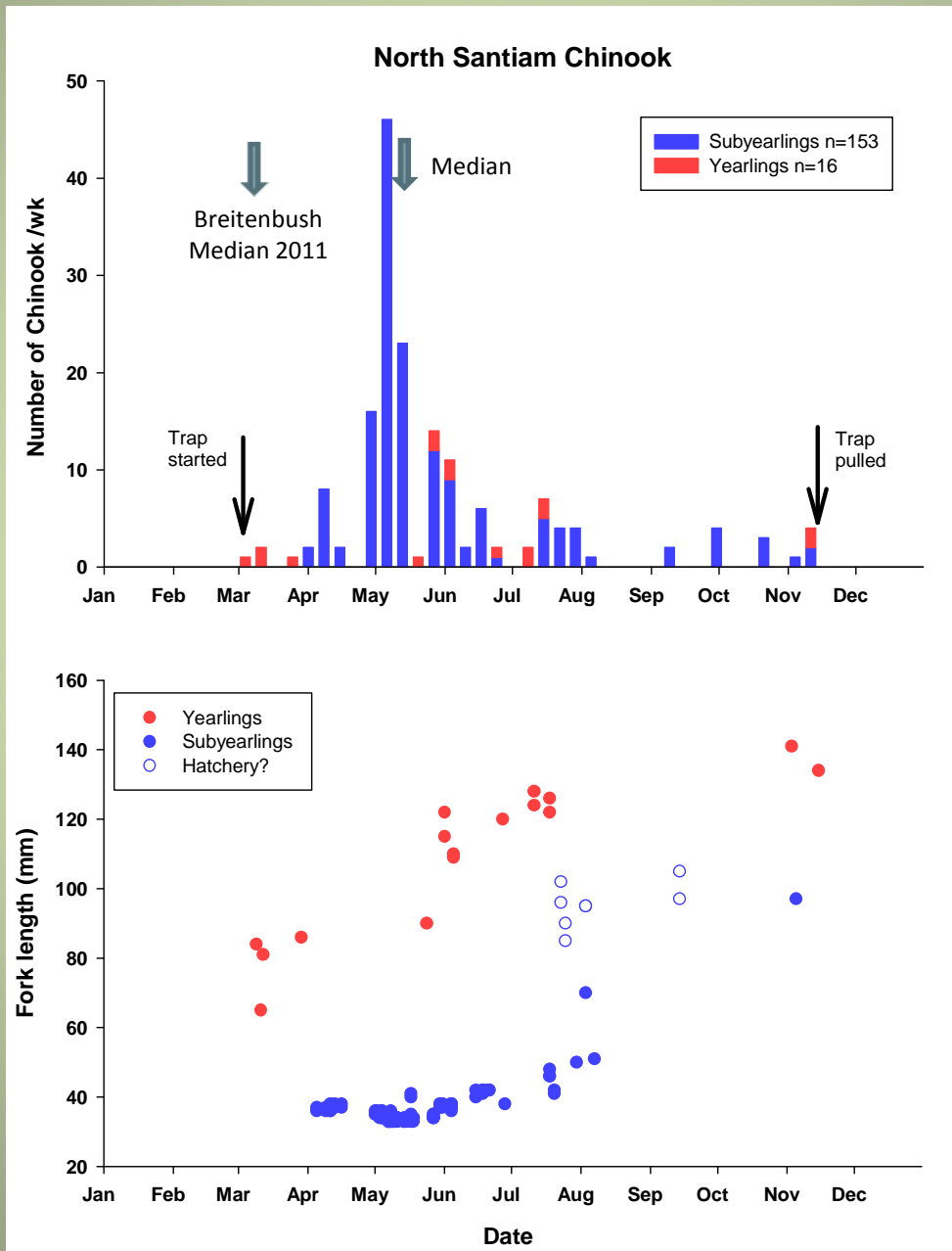
Gill netting near forebay



- Hung off of log boom
- July-Dec
- Changed pattern weekly

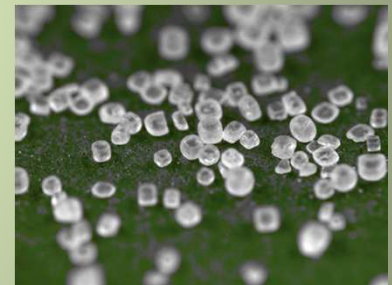


# Migration Timing and Size of Chinook Entering Reservoir

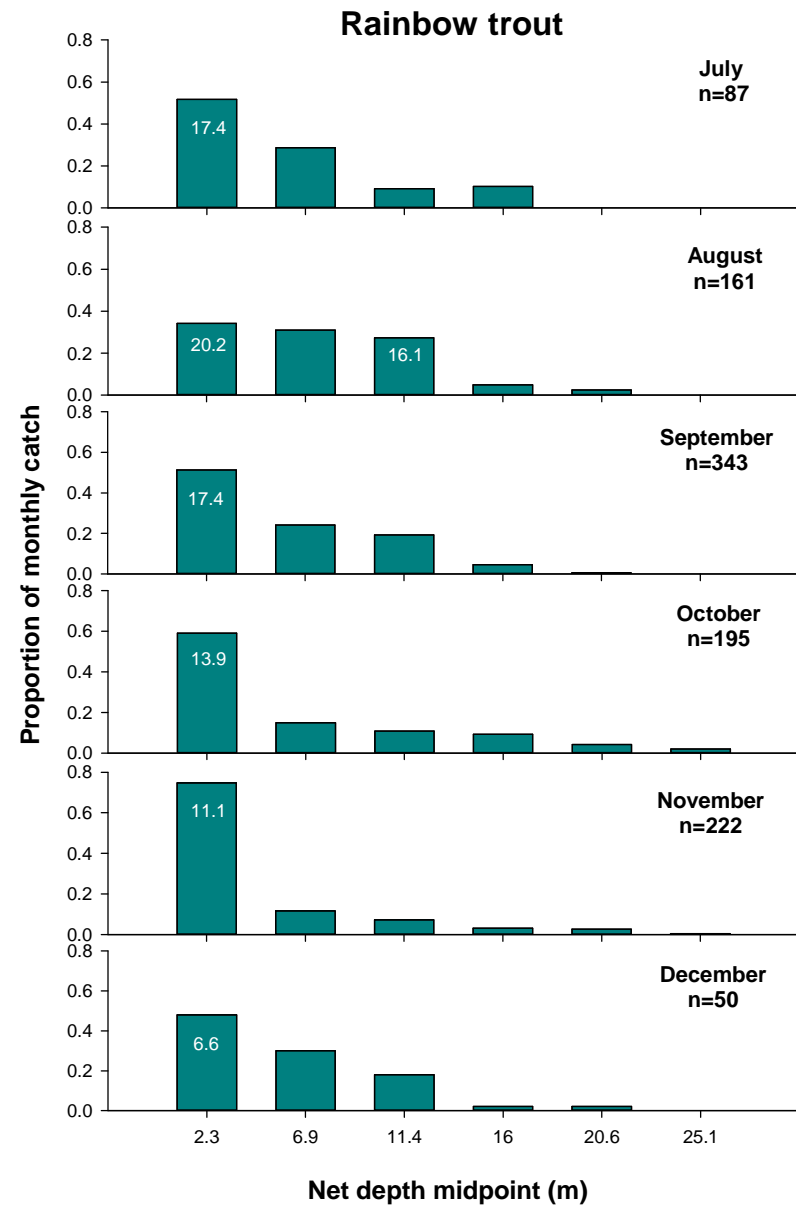
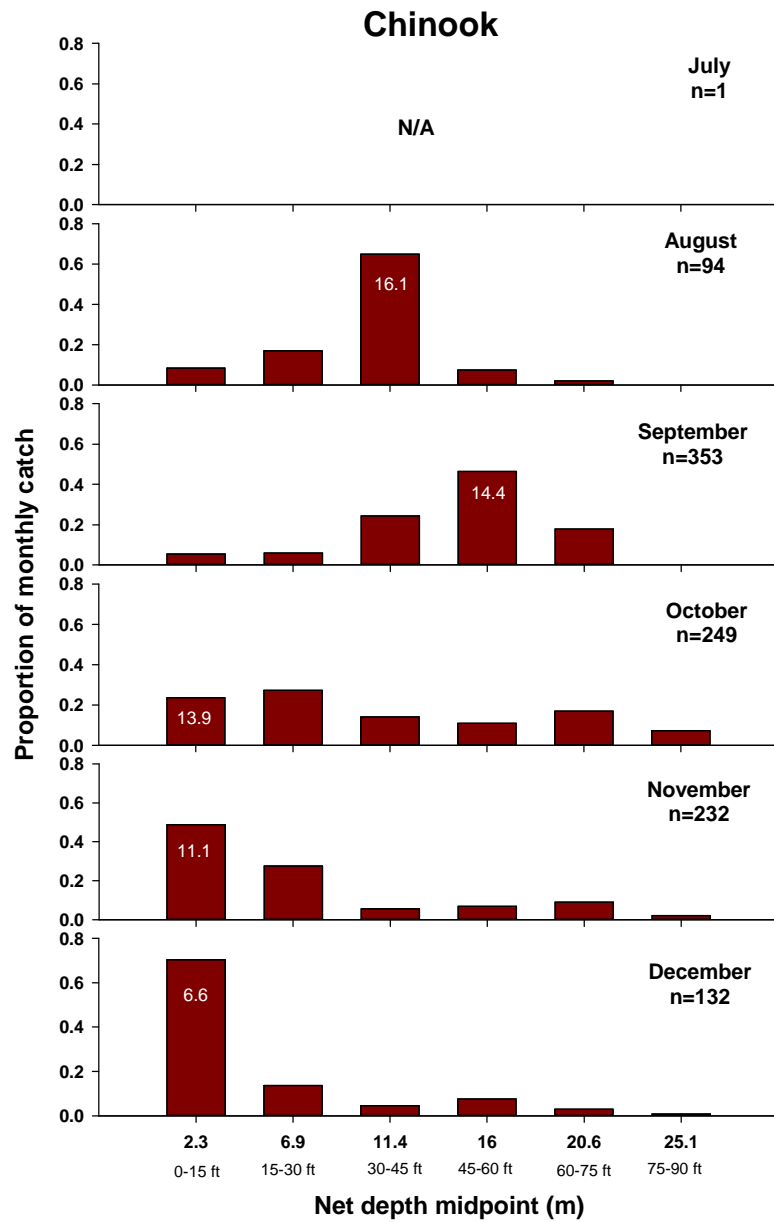


August Parr  

$$N = 102,000 - \frac{102,000(1062)}{982} = 8,302$$

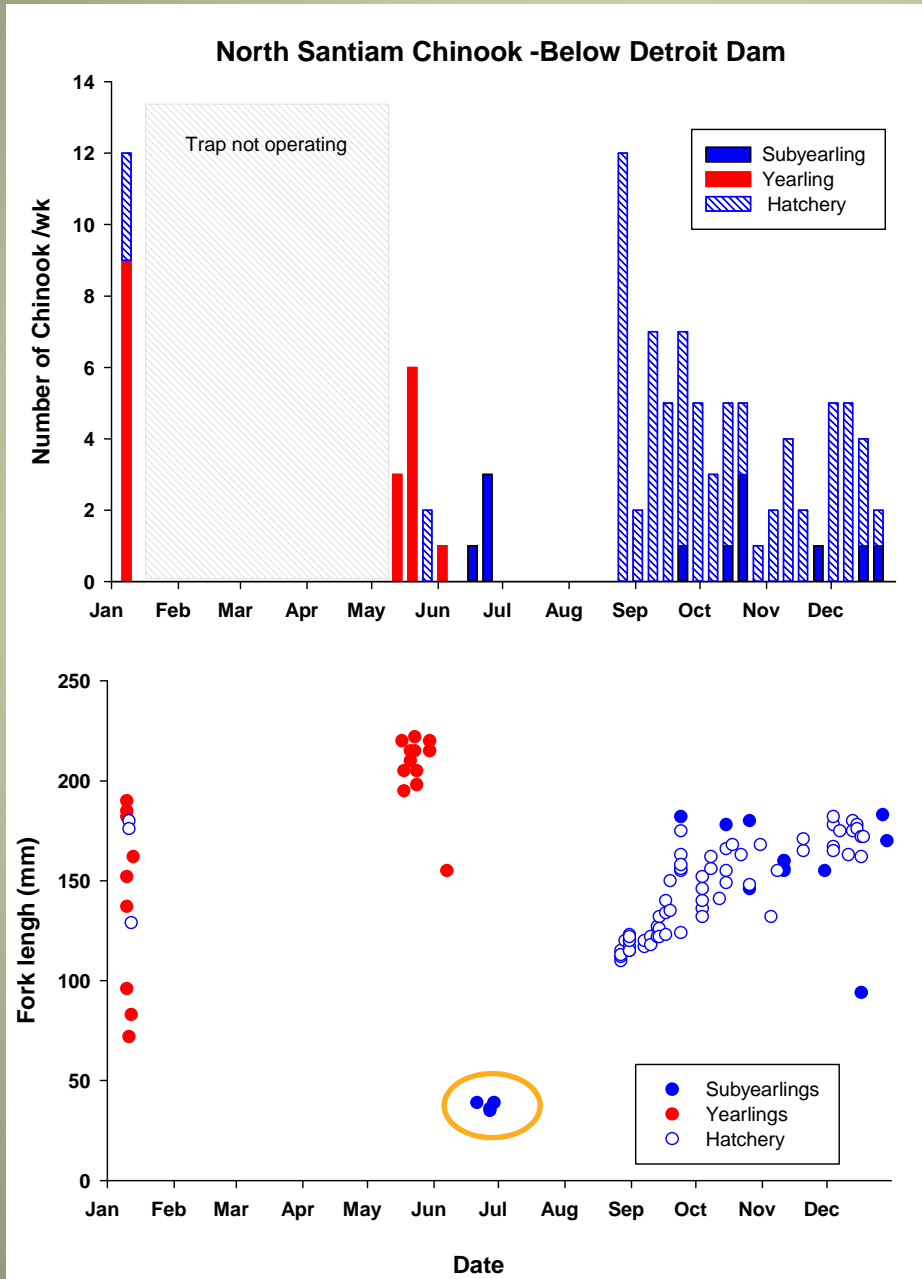


# Vertical Distribution





# Migration Timing of Chinook Exiting Detroit Reservoir



# Conclusion

Juvenile Chinook enter Detroit Reservoir in mostly in spring as fry

- Peak in mid-May similar to SF McKenzie
- May be influenced by spawning in Horn Creek

Chinook descend into deeper water (~16 m or more) in summer and return to surface in fall

- Rainbow trout generally near surface year-round

Chinook exited Detroit beginning in summer and continue through following spring

- evidence of land-locked Chinook spawning between Detroit and Big Cliff dams

# Acknowledgments



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John Elliot  
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