

Environment parameters: the choices of Delta Smelt

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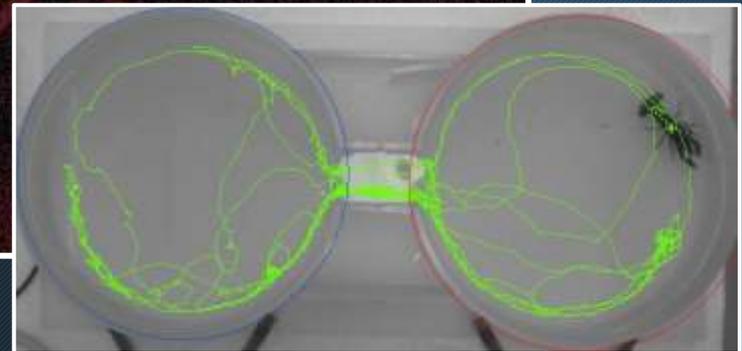
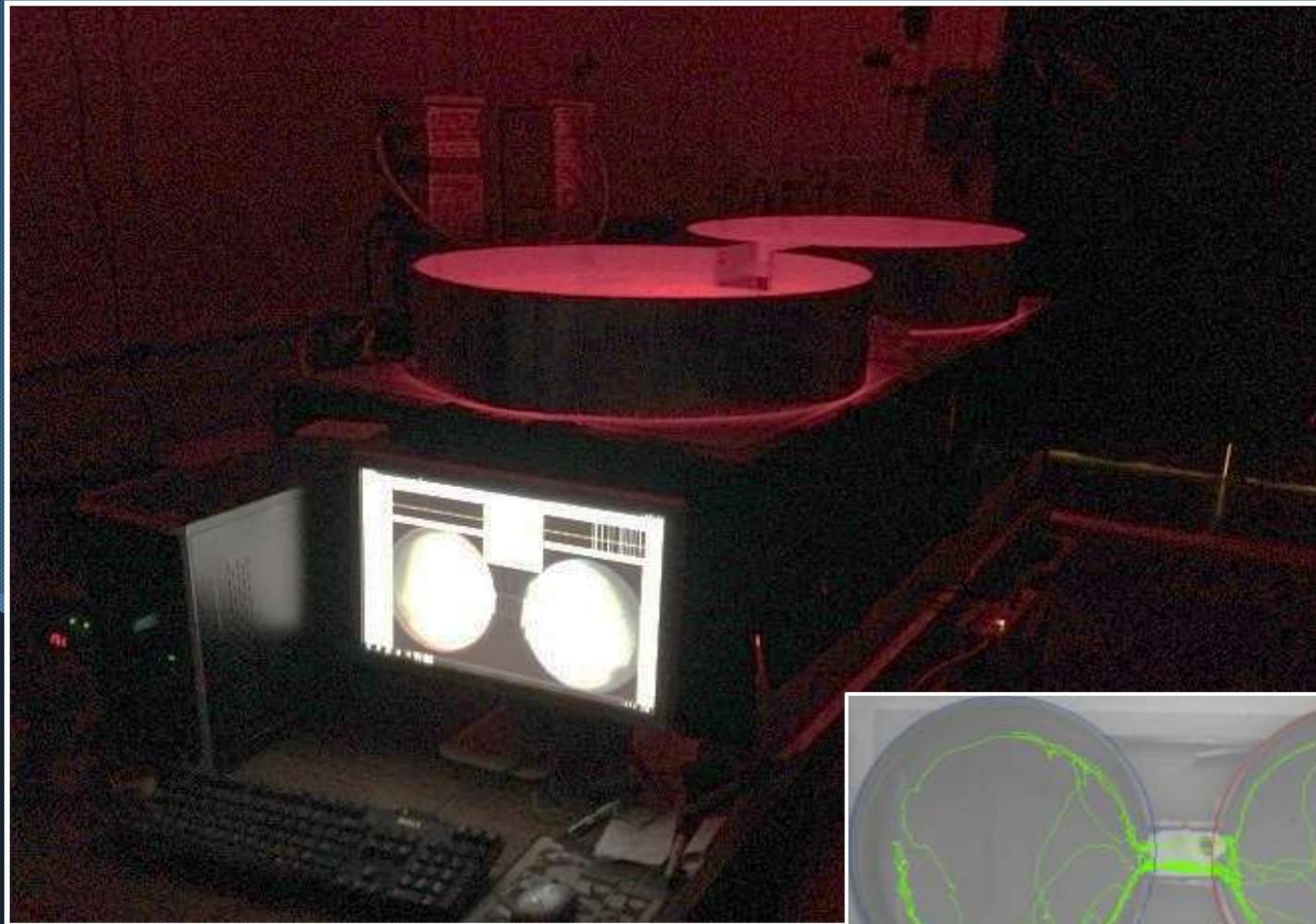
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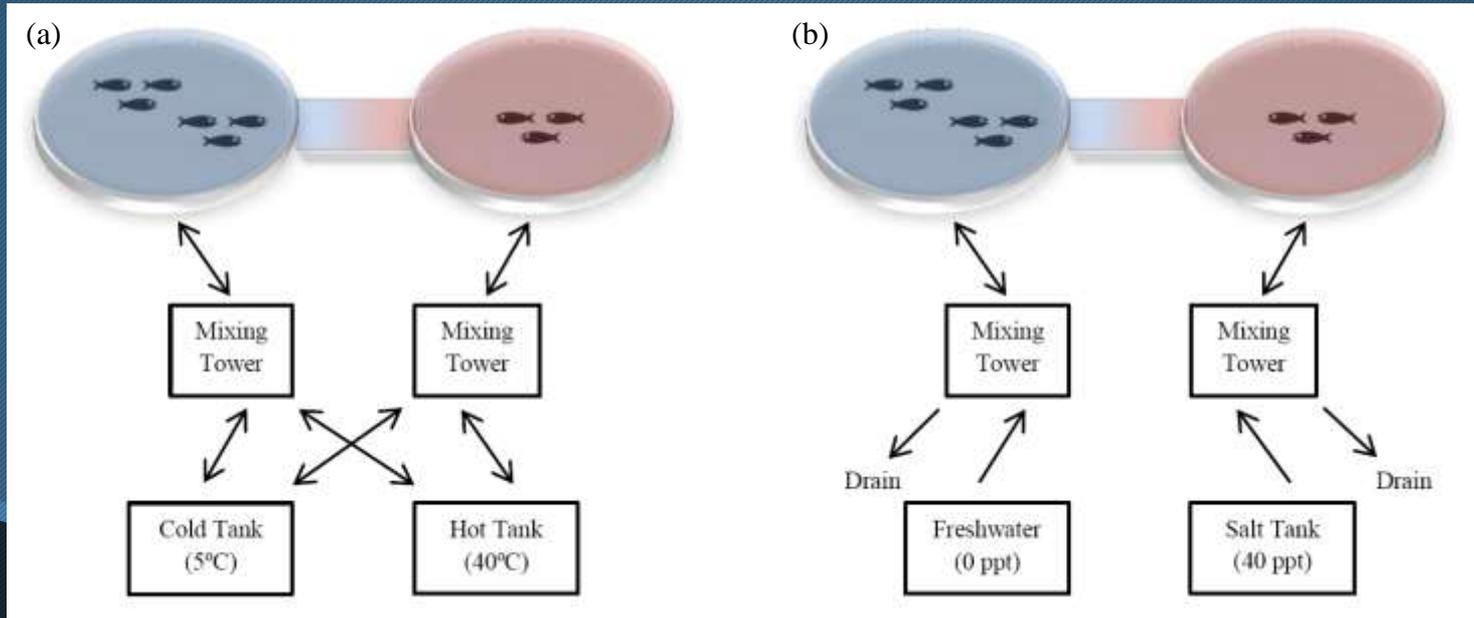
Main Purpose and Key Points

- Behavioral responses to different levels of temperature and salinity
- Fish were allowed to make their own choices of where to stay
- Multiple fish were tested together in each trial

Modified Shuttlebox System



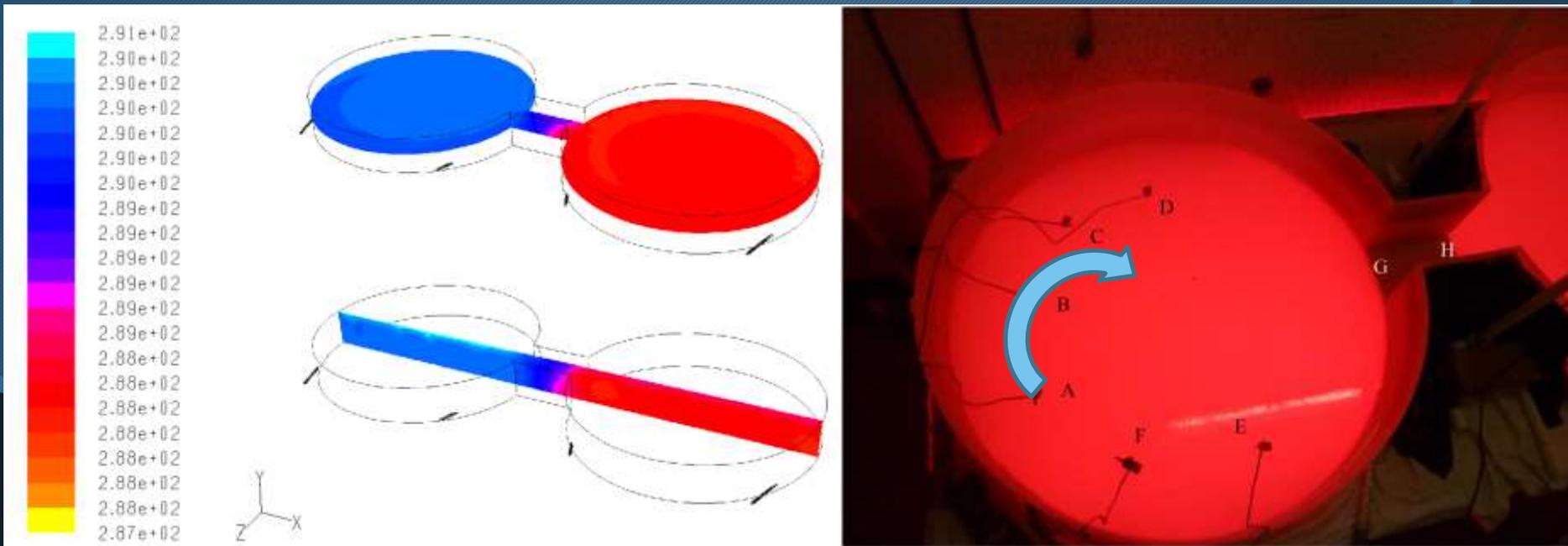
System Diagram



Temperature

Salinity

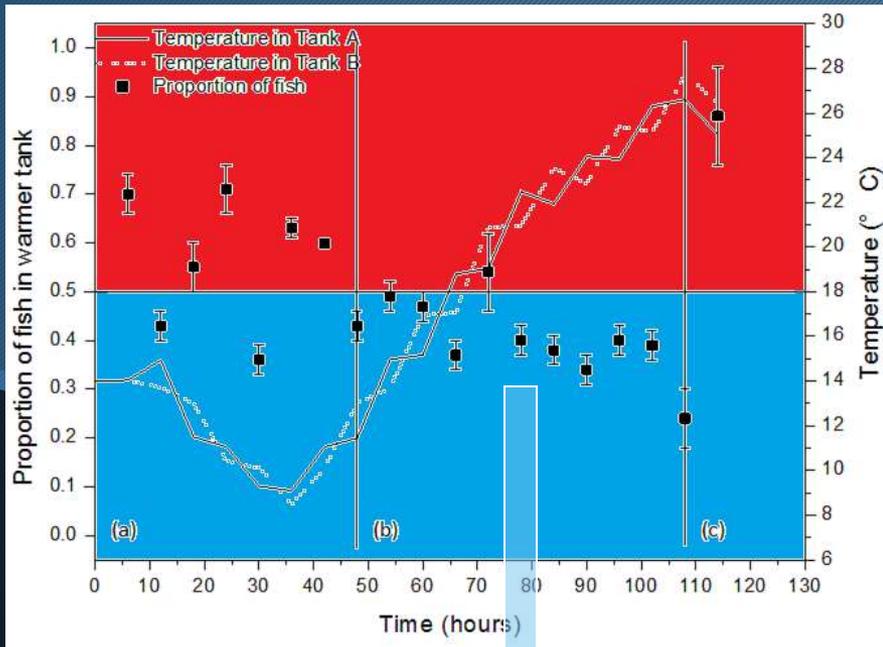
Temperature Distribution



Water exchange rate: 31 min/round

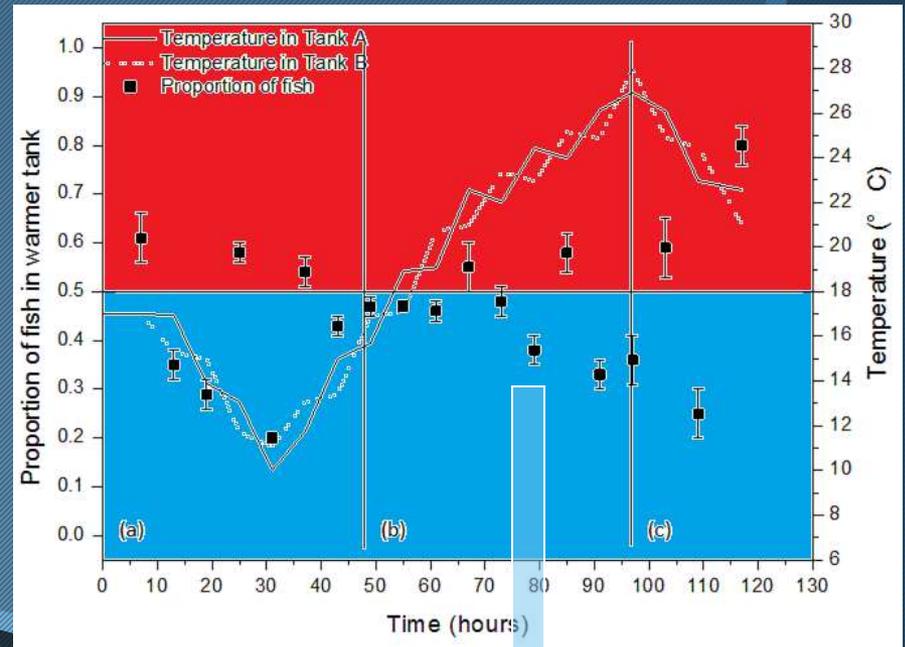
Fish Choice at Several Temps

Acclimated to 14°C



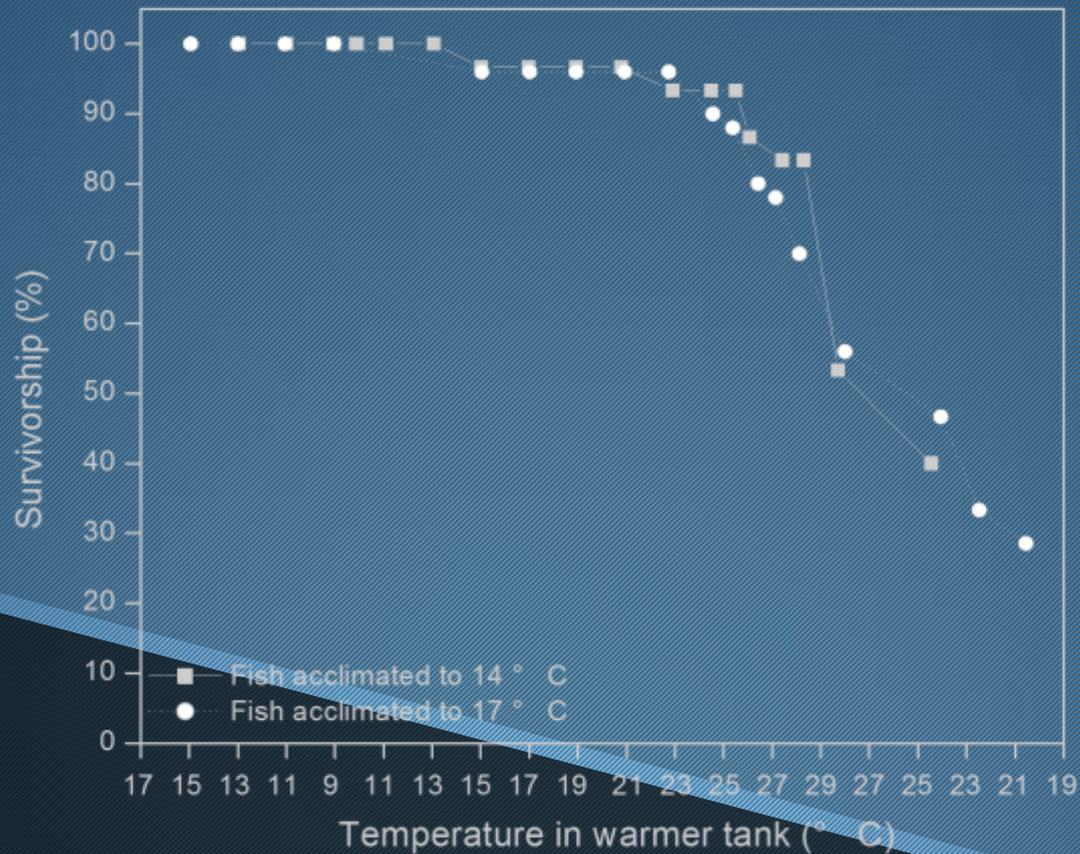
23°C

Acclimated to 17°C

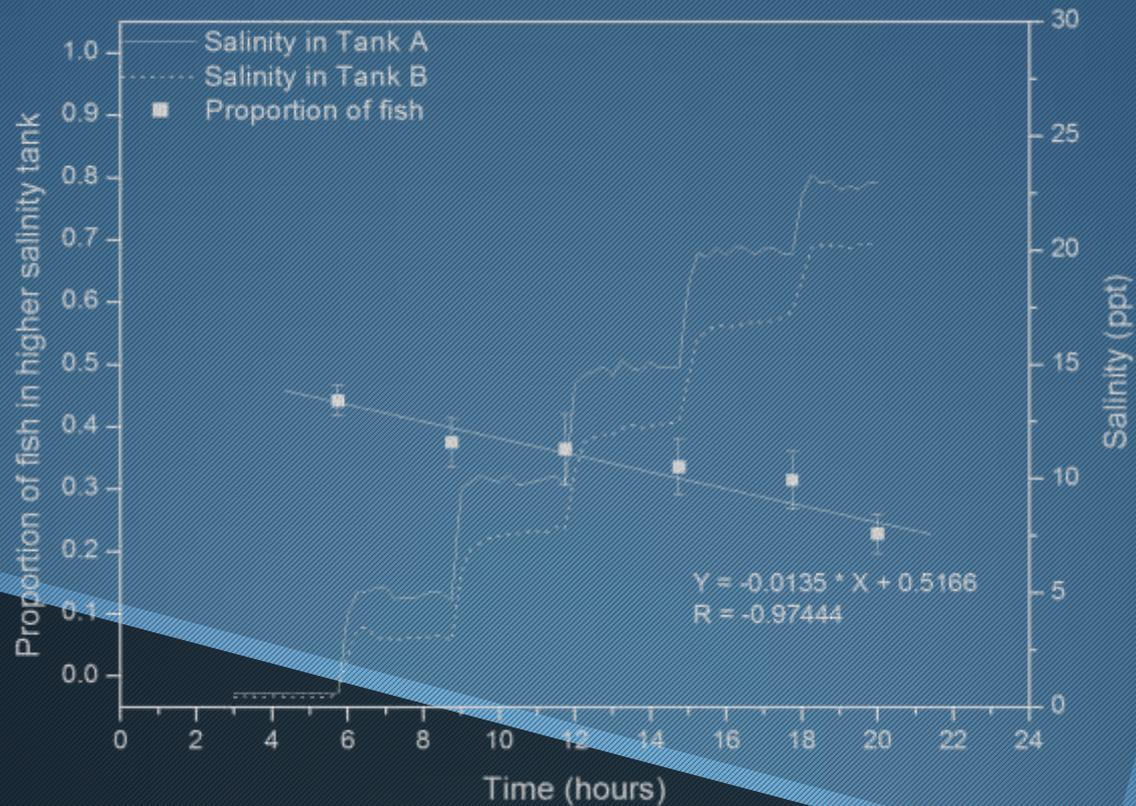


25°C

Effect of Temperature on Survival



Fish Choice at Several Salinity Levels



Results Summary

- Temperature trials
 - 23°C for fish acclimated to 14°C
 - 25°C for fish acclimated to 17°C
- Salinity trials
 - No significant movement to a specific salinity
 - Avoiding high salinity, as the salinity increased
- Future work
 - Other stimuli: turbidity, toxicity, other