

# The Impact of Turbidity of Water on Behavior of *Astatotilapia burtoni*

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***Astatotilapia burtoni* is a species of cichlid fish native to Africa. They are often used as a model organism to study the behaviors and development of cichlids. Does the light environment of their water impact their behaviors?**

# Experimental Design

- 1 male and 4 female cichlid fish of approximately the same size were each put in 2 tanks.
- One tank was kept clear, the other was stained with instant-tea
- Behaviors were tallied in 20 minute intervals, keeping track of males digging or chasing or leading female for mating behaviors. Females chasing other females was recorded to count aggressive behaviors.

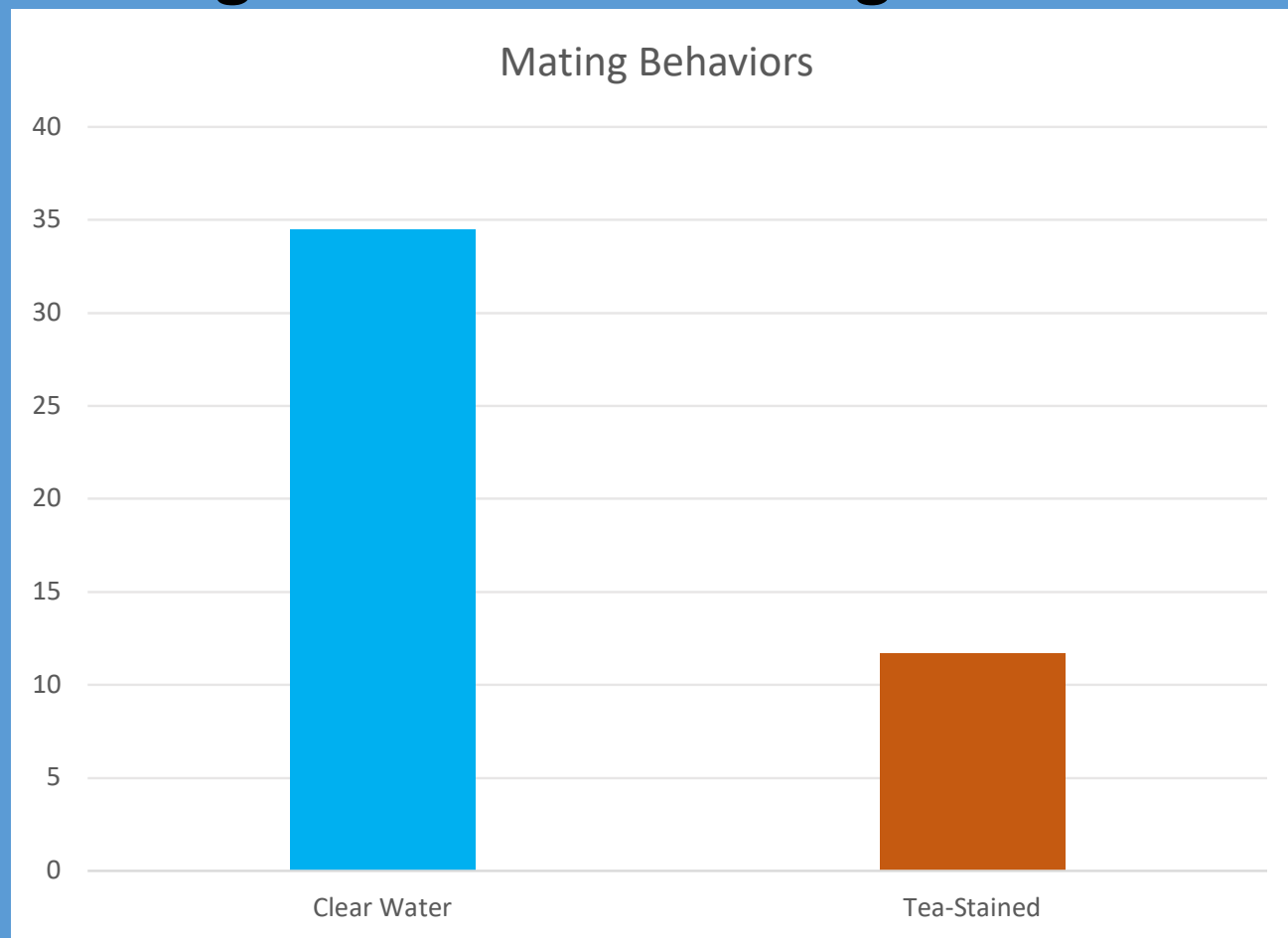


Tea-Stained Water

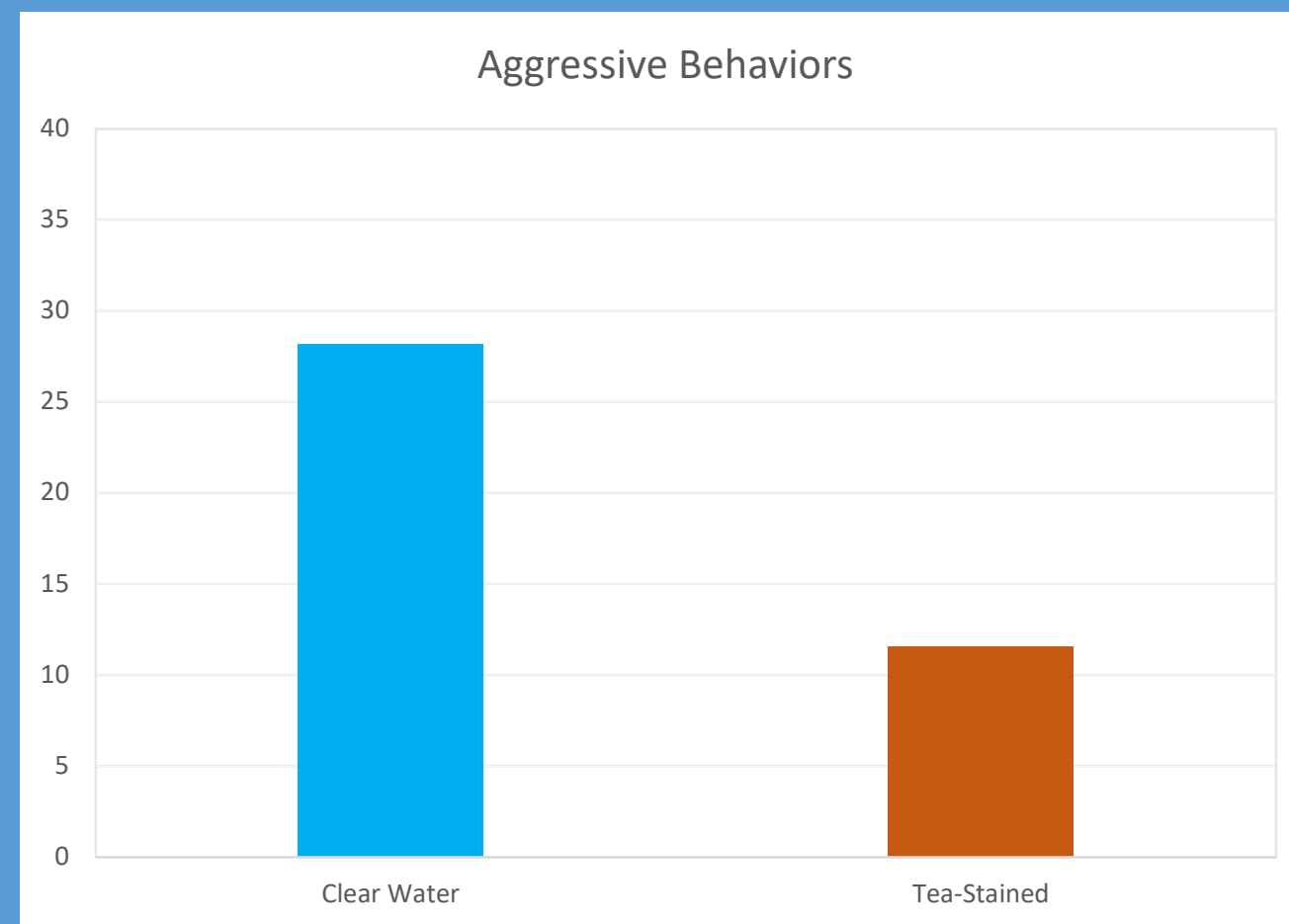
Clear Water

# Results:

## Average Number of Mating Behaviors



## Average Number of Aggressive Behaviors





# Conclusion:

The p value for the comparisons between both mating behaviors and aggression is 0.0003. We can reject the null hypothesis at a significance level of 0.05

Therefore we can conclude that the turbidity of water does have an impact on behaviors in cichlid fish

# Future Projects:

Future experiments can be done in the field, doing research in bodies of water that have increased turbidity due to pollution and examining its effect on the behaviors of the fish.

## References:

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