

How salinity and temperature effects survival of different species of amphibians



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Research Question

How do different levels of salinity effect the growth of an indicator species at different temperatures and how does this relate to climate change?

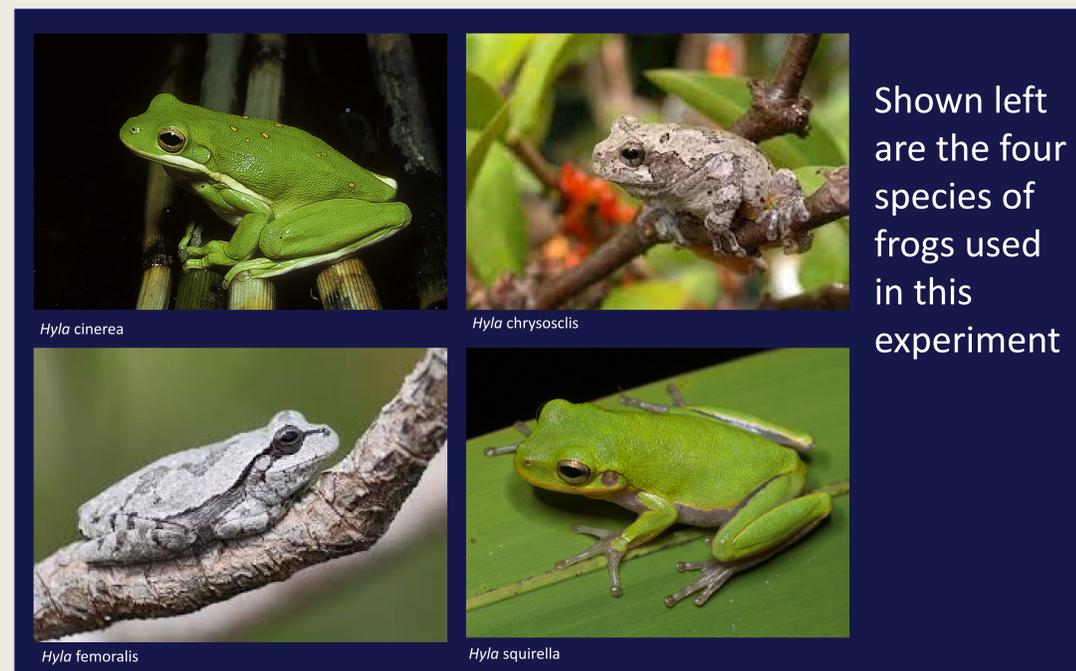
Introduction

Climate change and habitat degradation are the two most critical threats presented to habitat loss for populations all around the world. Indicator species are particularly affected by these changes in their environment and serve as a good index for how the ecosystem is persisting. The objective of this experiment was to **observe whether tadpole survival was affected by salinity and temperature.**

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Methods

We tested four different species of tadpole: *Hyla cinerea*, *H. chrysoscelis*, *H. femoralis*, and *H. squirella* at different salinity levels (0, 2, 6, and 8) and temperatures (39F and 74F) and assessed their growth and mortality rates over a two-week period.

Conclusion and Results

We found that mortality was not salinity or species dependent, but rather temperature dependent. This is significant due to rapid climate change and a large amount of frog habitat being lost to rising sea levels. This data indicates that we may not lose vital indicator species we previously thought we would be adding to the endangered and extinction lists.

