



Effects of the Guana Dam closure on fish within Guana Lake and Guana River

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Northeast Florida Aquatic Preserves



Study Site

Guana Lake and Guana River



← Right out this door



Guana Dam construction began in 1957 and was completed in 1961

1942



1960







How it works





Dam closure

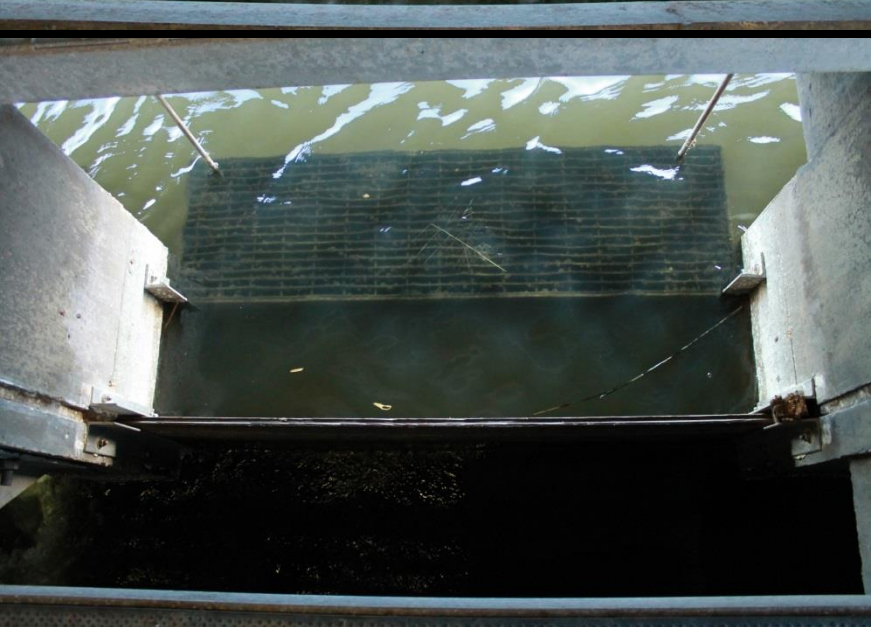
March 2018





Factors

Dam Status



Habitat



Diel



Night





Sampling Begins

May 2018



Sampling Sites



Readying the net



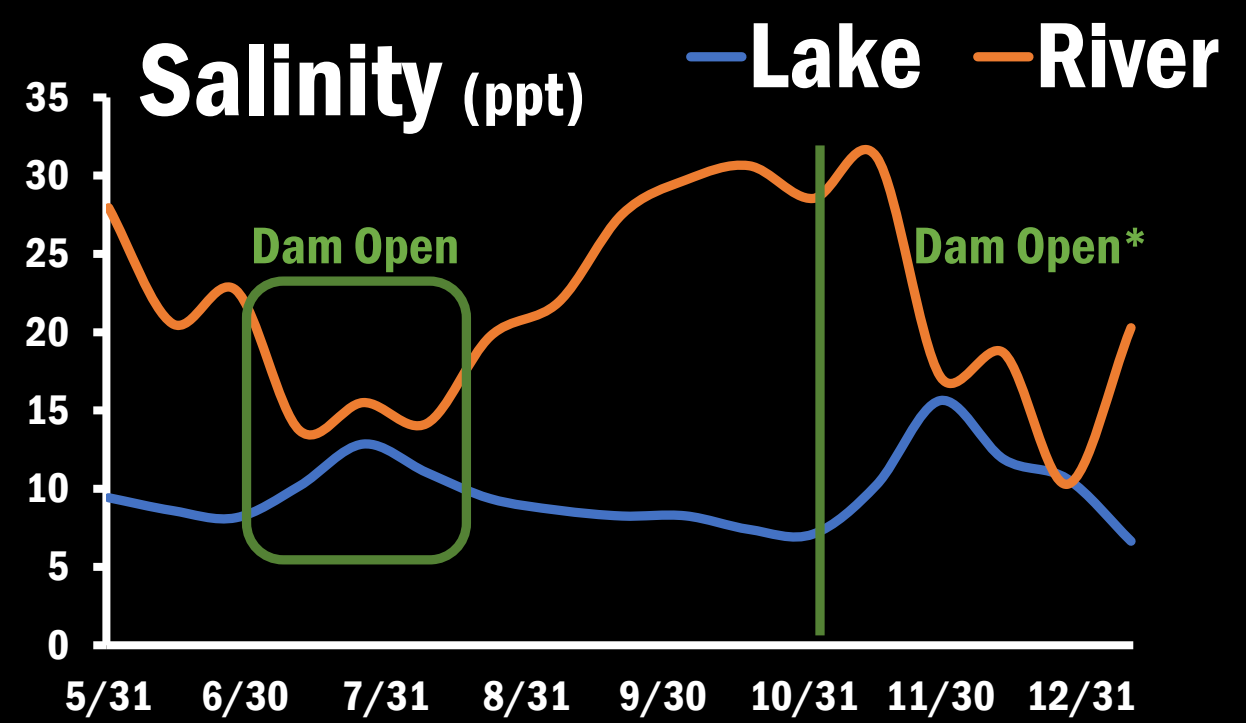
Sampling



Consolidating



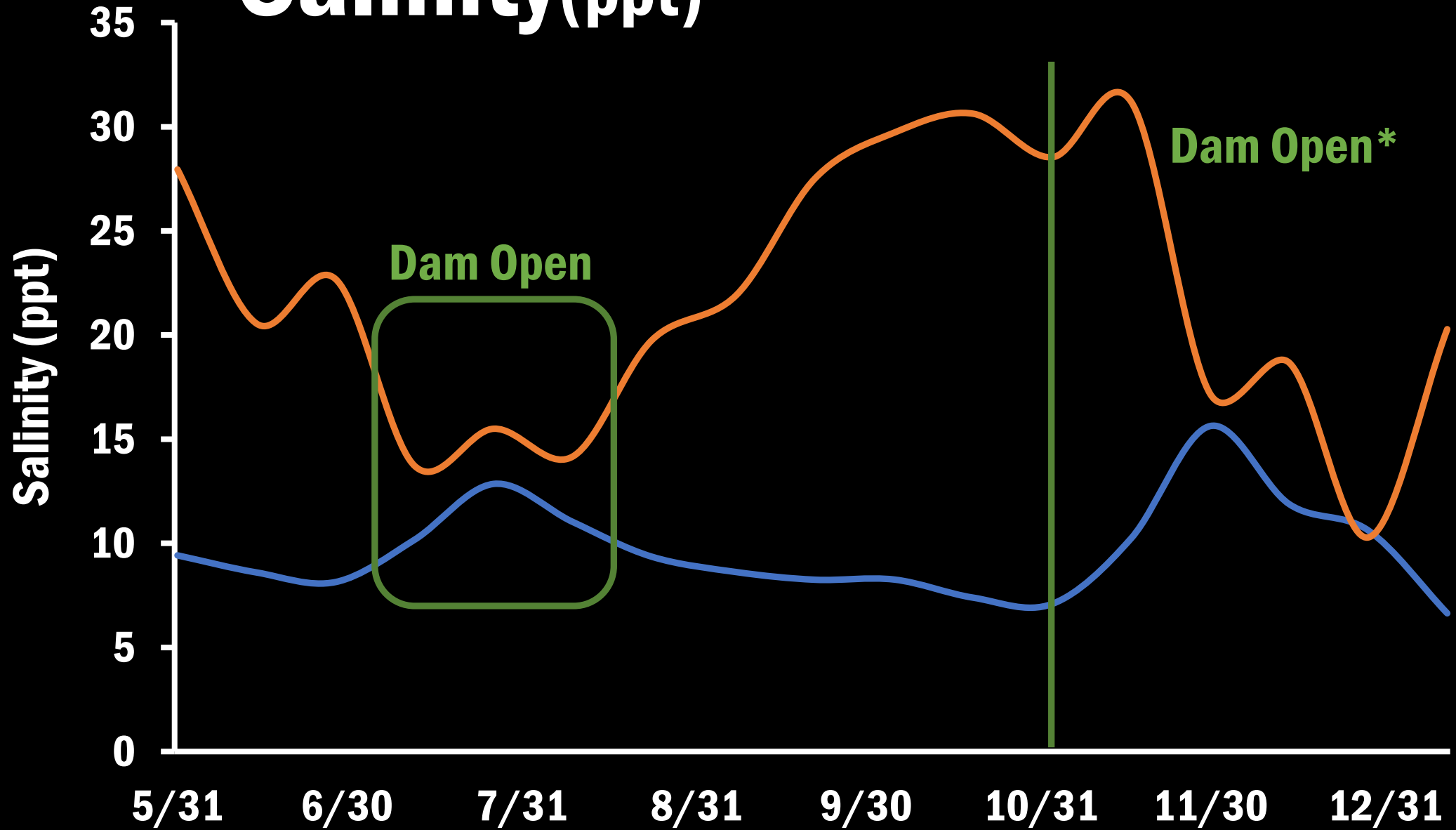
Measuring and Counting





Salinity (ppt)

— Lake — River





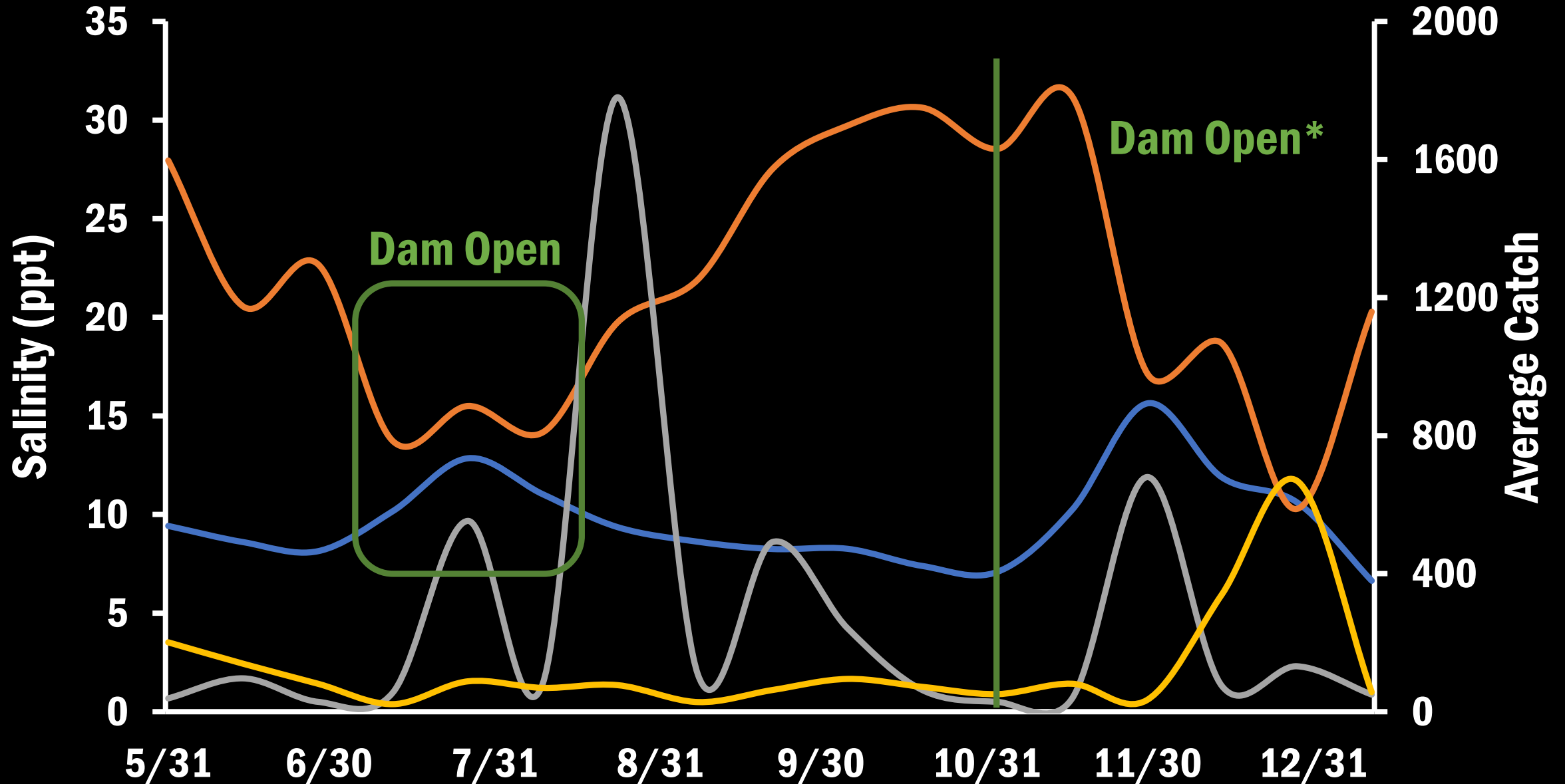
Salinity and Catch

—Lake

—River

—Catch Lake

—Catch River

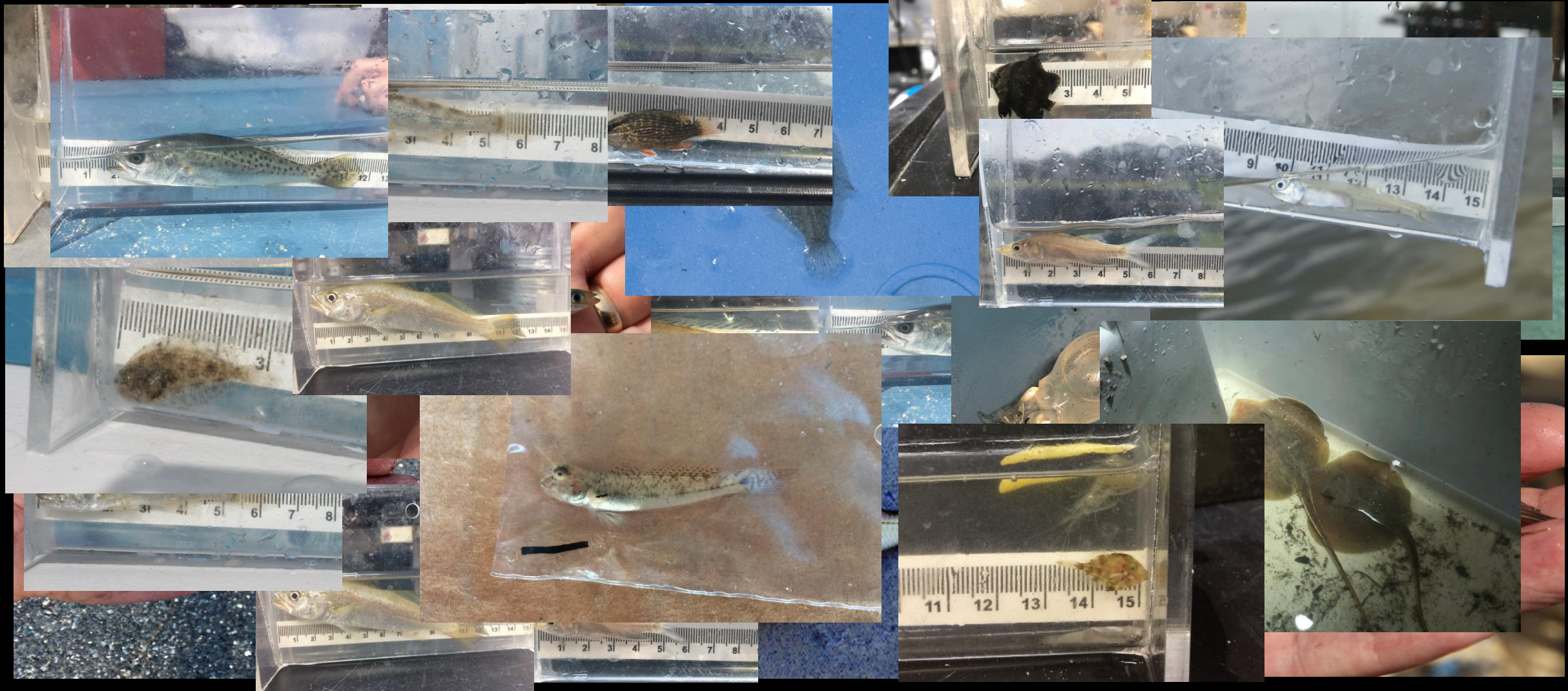




Results: Dam Status

Closed, open* $R=0.299$ $p=0.001$

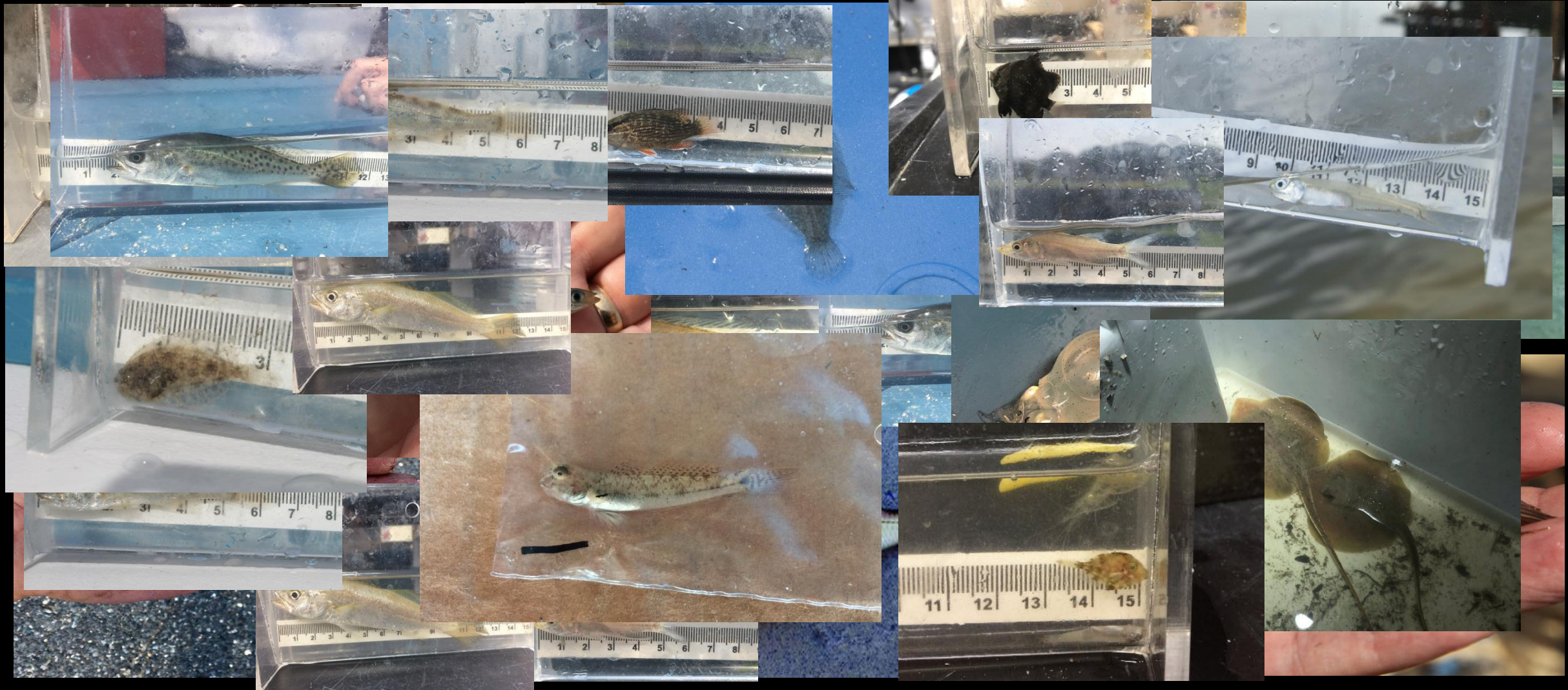
Open, open* $R=0.2$ $p=0.002$





Results: Habitat

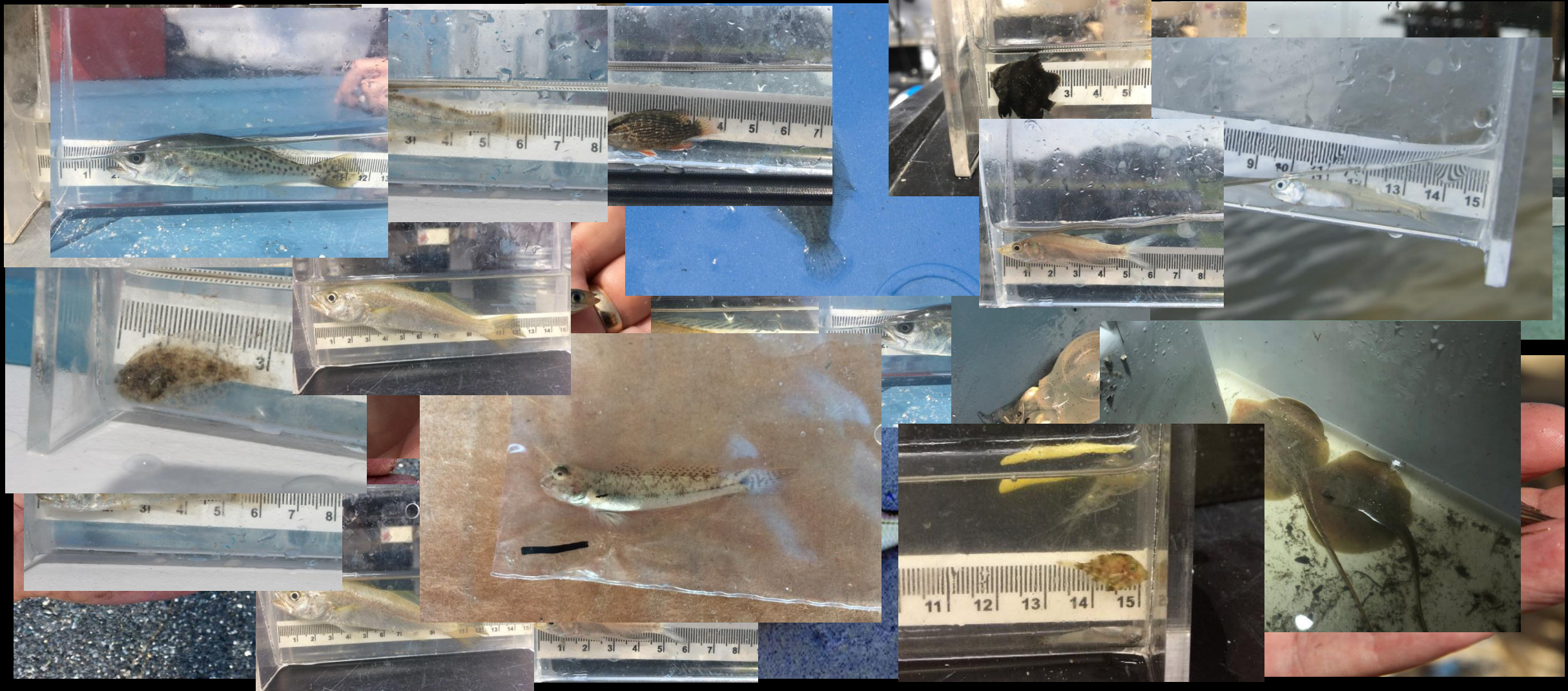
Lake, river $R=0.311$ $p=0.001$





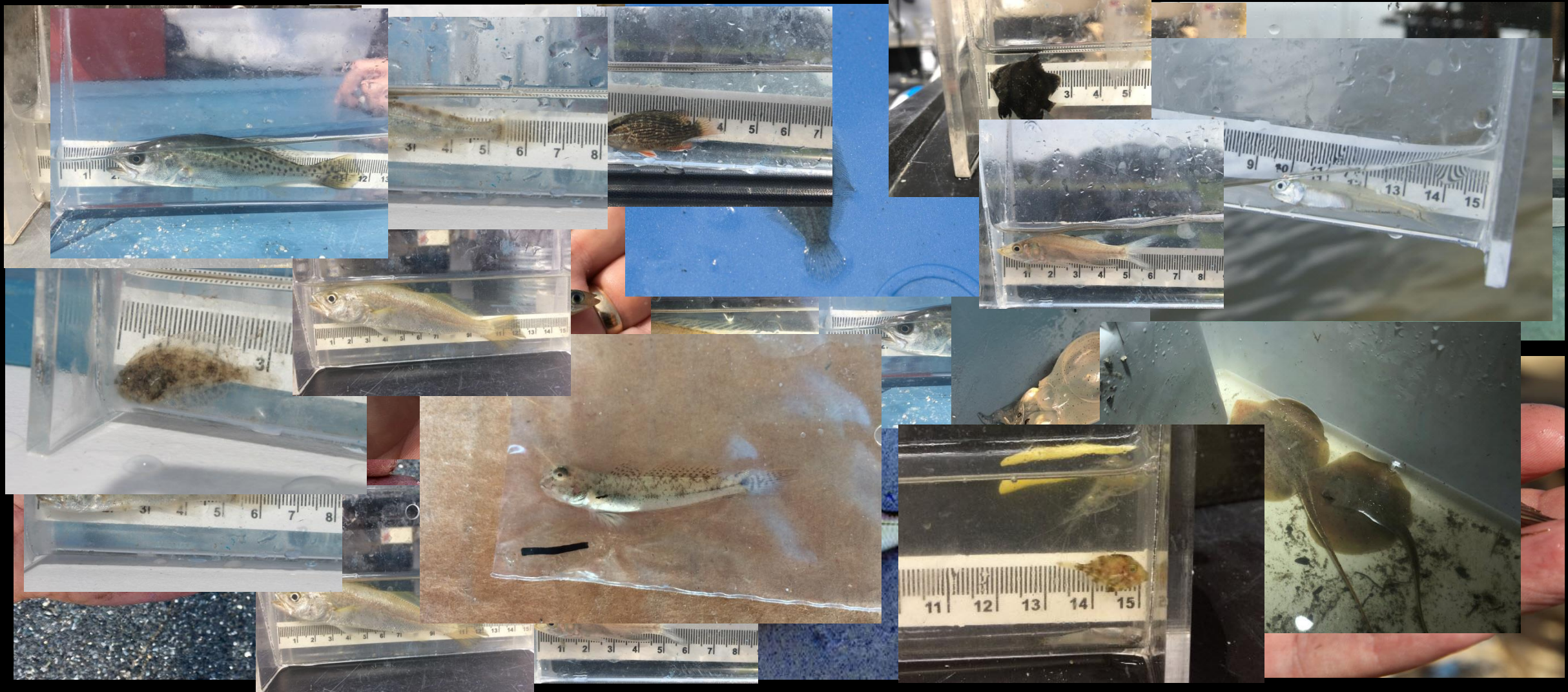
Results: Diel

Night, day $R=0.106$ $p=0.002$





Results: Similarity Percentages (SIMPER)





Results: Similarity Percentages (SIMPER)



Blue crab



Brown shrimp



Silverside



Spot



Mojarra



White shrimp



Results: Dam status



Blue crab



Brown shrimp



Silverside



Spot



Mojarra



Results: Habitat



Blue crab



Brown shrimp



Silverside



Mojarra



Results: Diel



Blue crab



Brown shrimp



Silverside

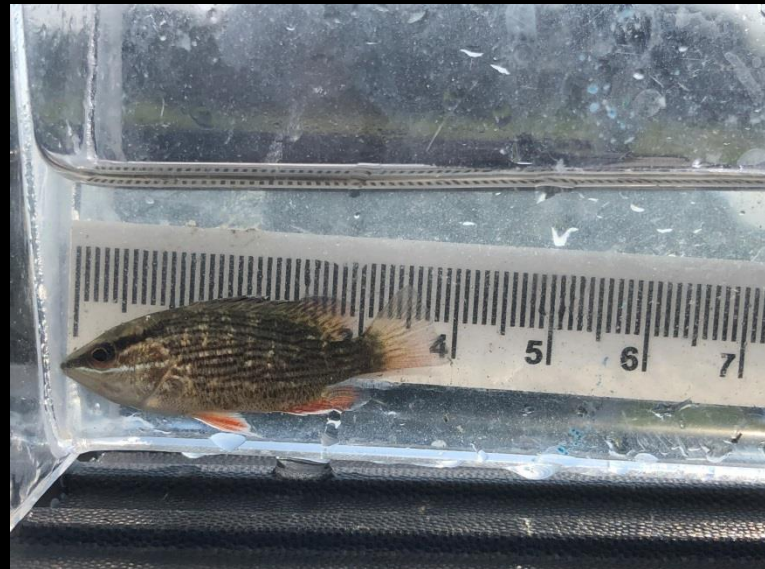


White shrimp



Take Aways

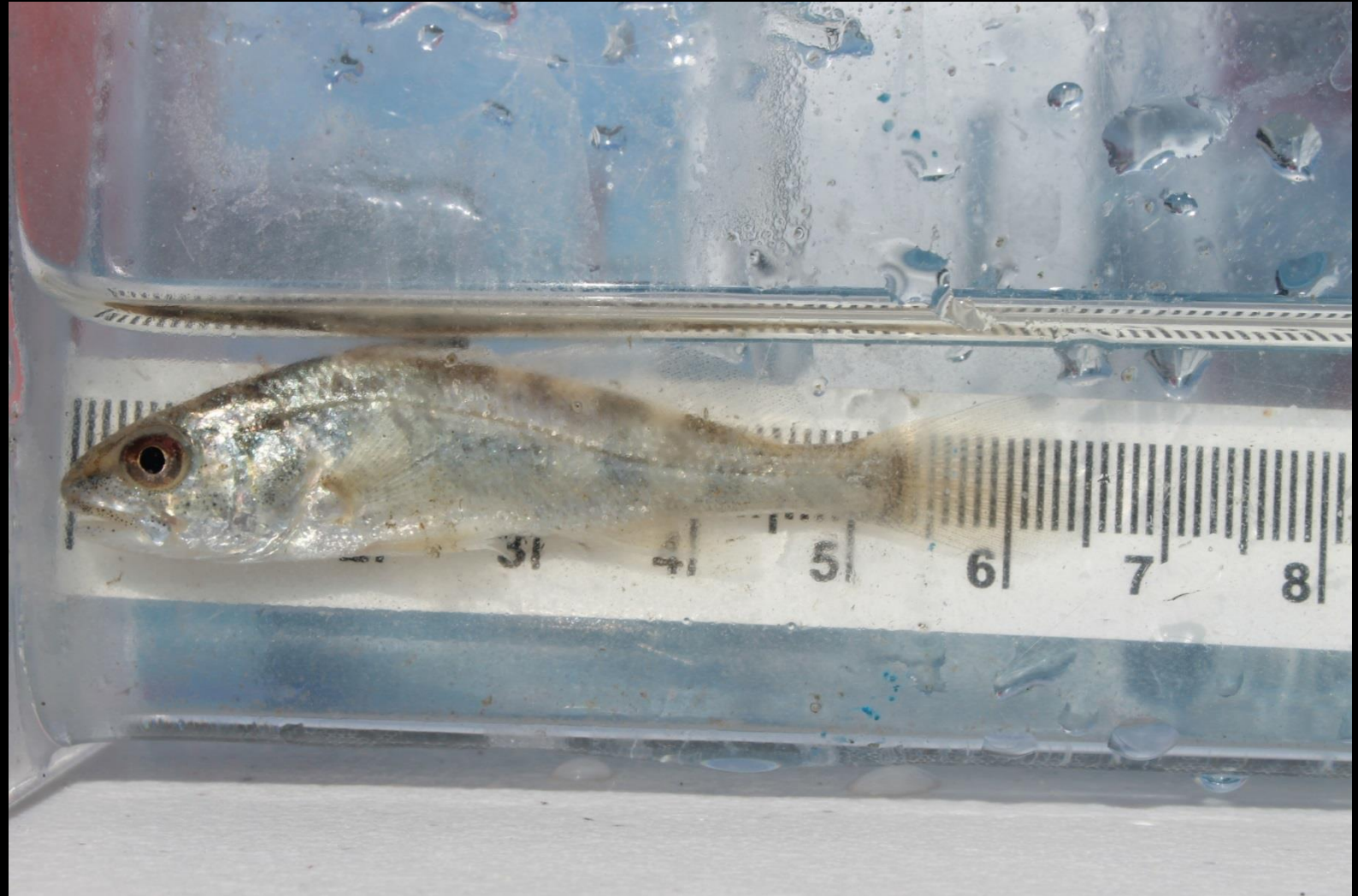
- More data to be had
- Patterns starting to emerge (maybe)
- Could be seasonal
- Time will tell





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