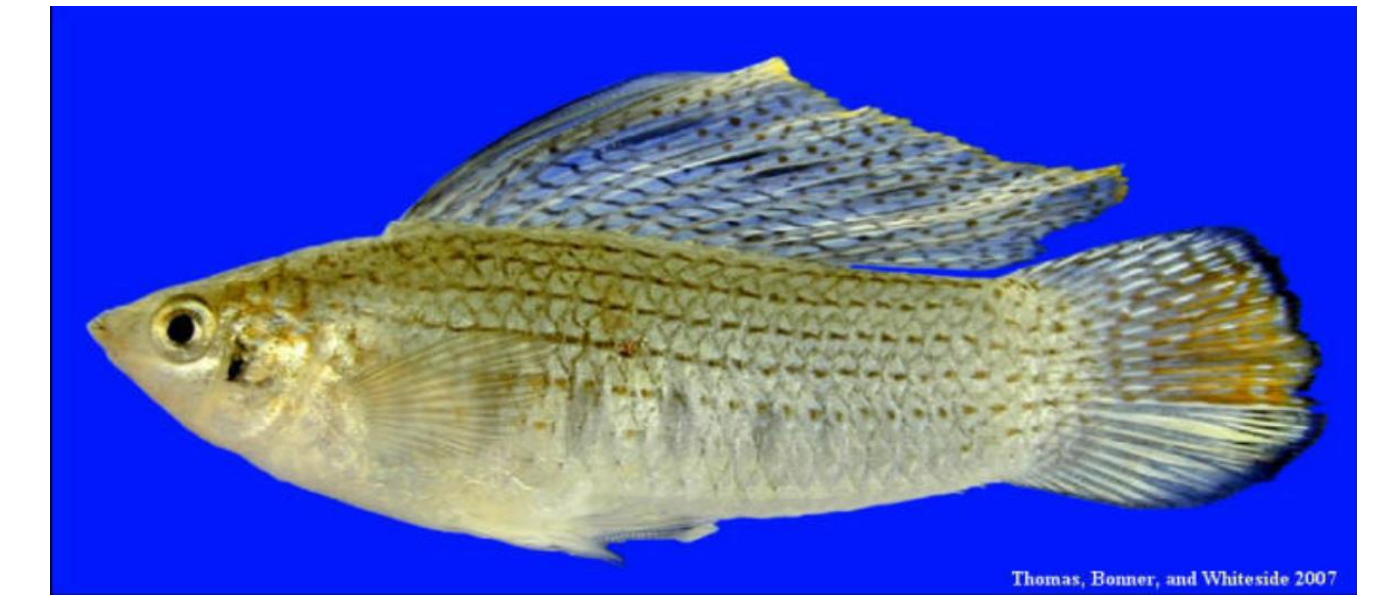


Effects of Copper in Sailfin mollies, *Poecilia latipinna*, Across Different Salinity Ranges

Tiffany Yanez Zapata, Florida International University

Research Mentor: Dr. Todd Crowl, Biology



Male Sailfin Molly

Importance

1) Accumulation of Cu

Fertilizer on Cu deficient soils

Herbicide/Algaecide

Fungicide on citrus agriculture

Hypotheses

1) Copper acute toxicity will decrease as salinity increases

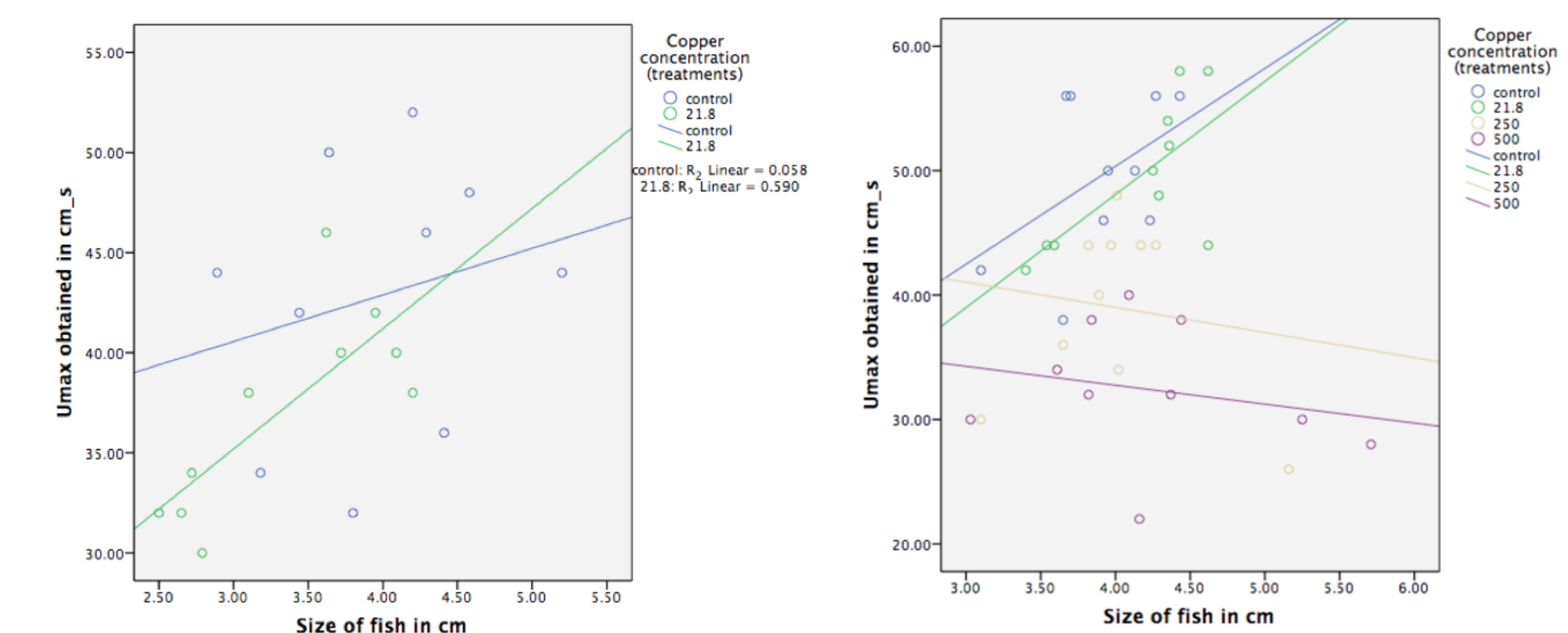
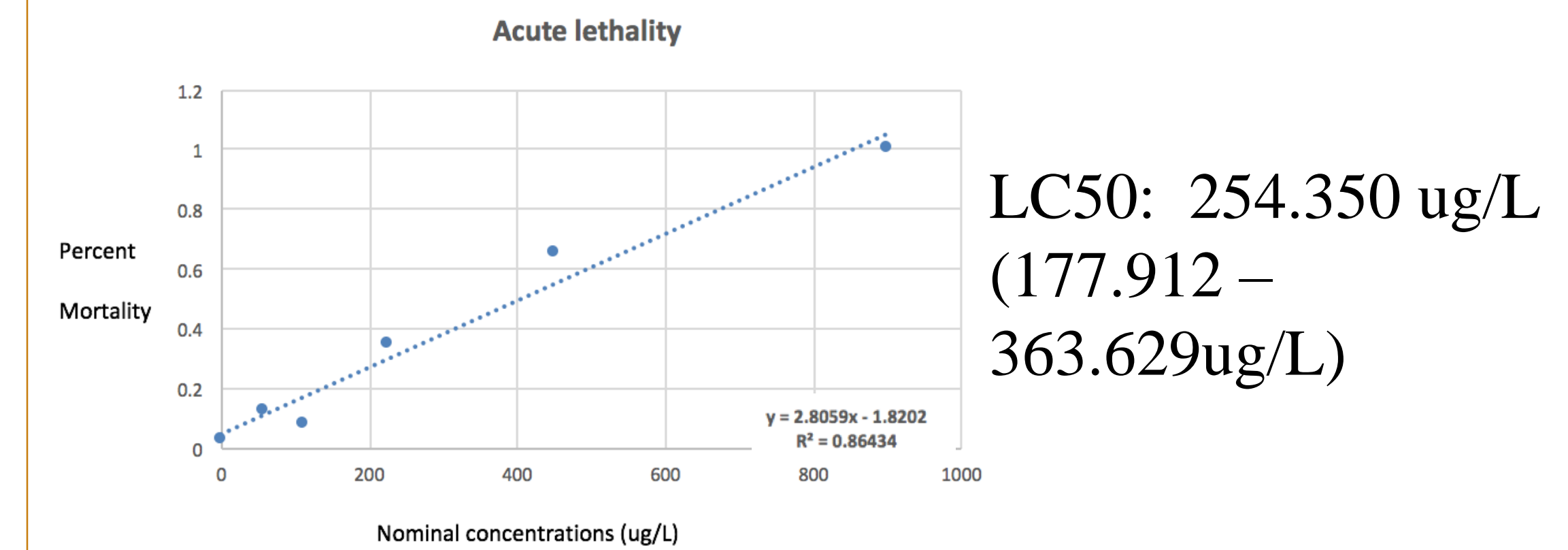
2) An impairment in swimming performance ability will be apparent at 10% of their acute toxicity value

To test these hypotheses I will:

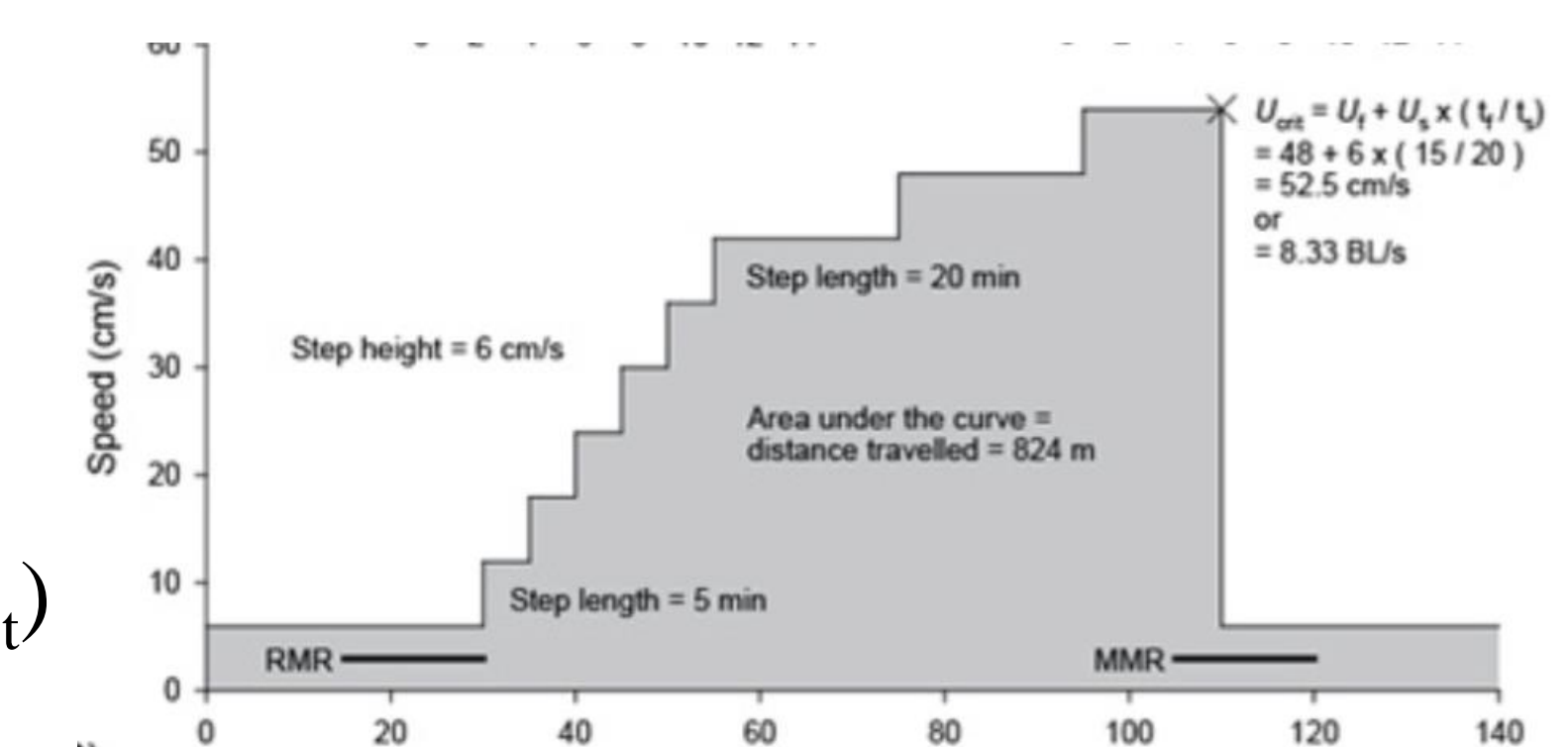
1) Acute toxicity experiments

2) Swim performance experiments

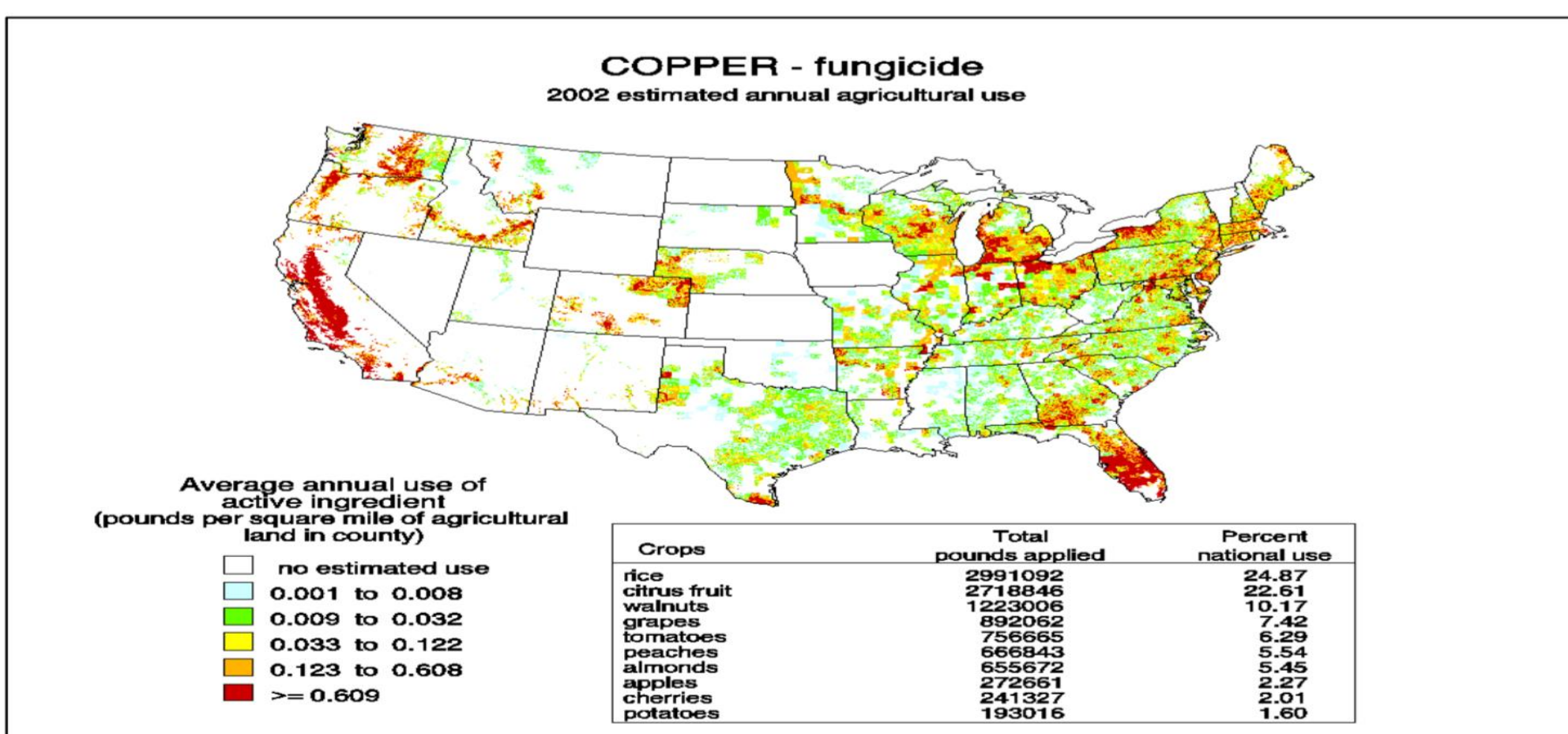
Preliminary & Expected Results



- Critical swimming speed (U_{crit})

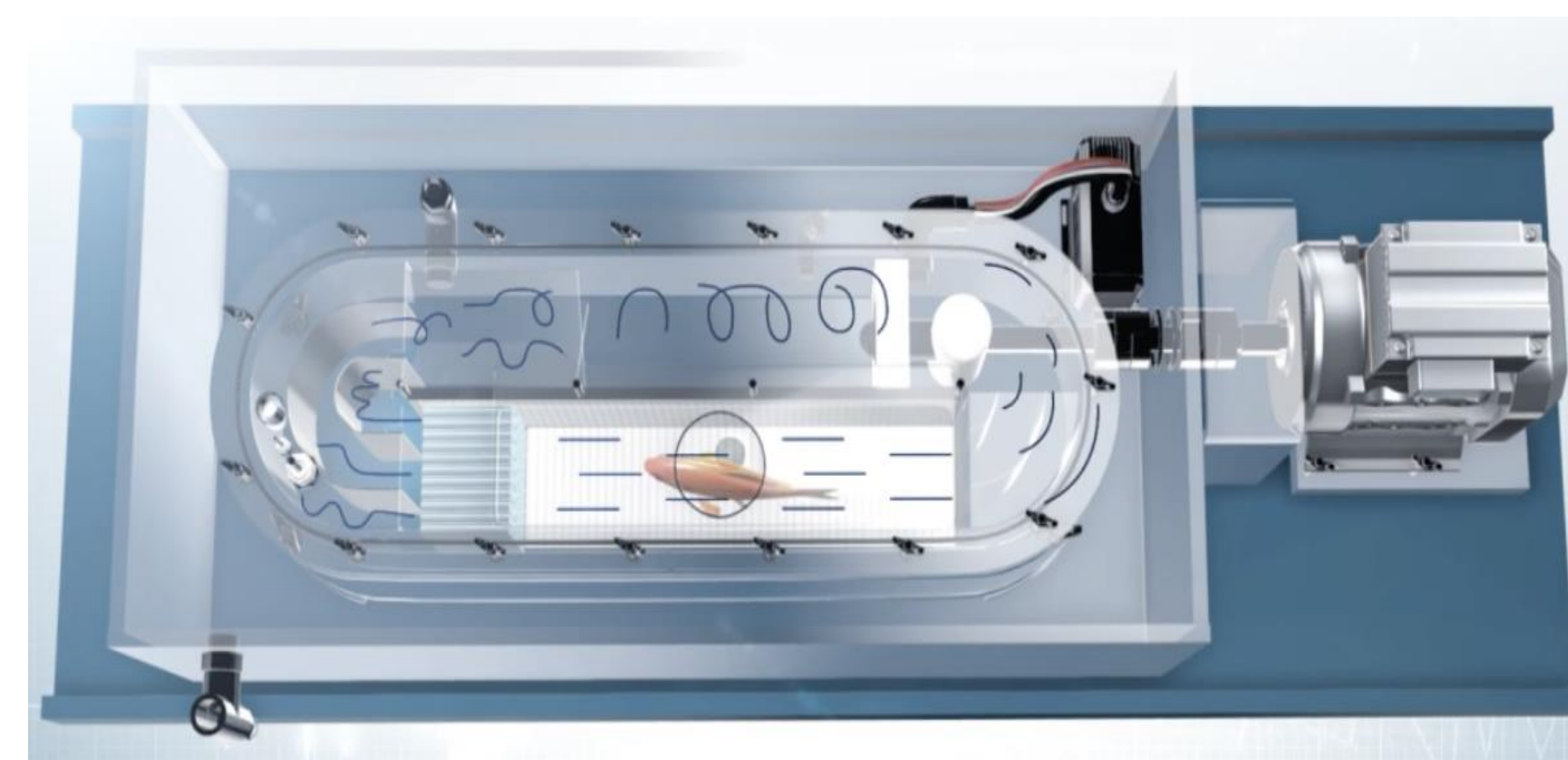
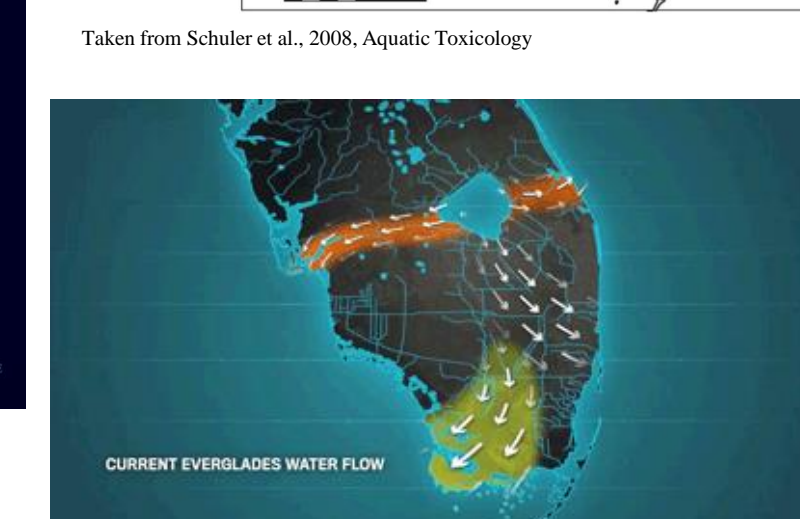
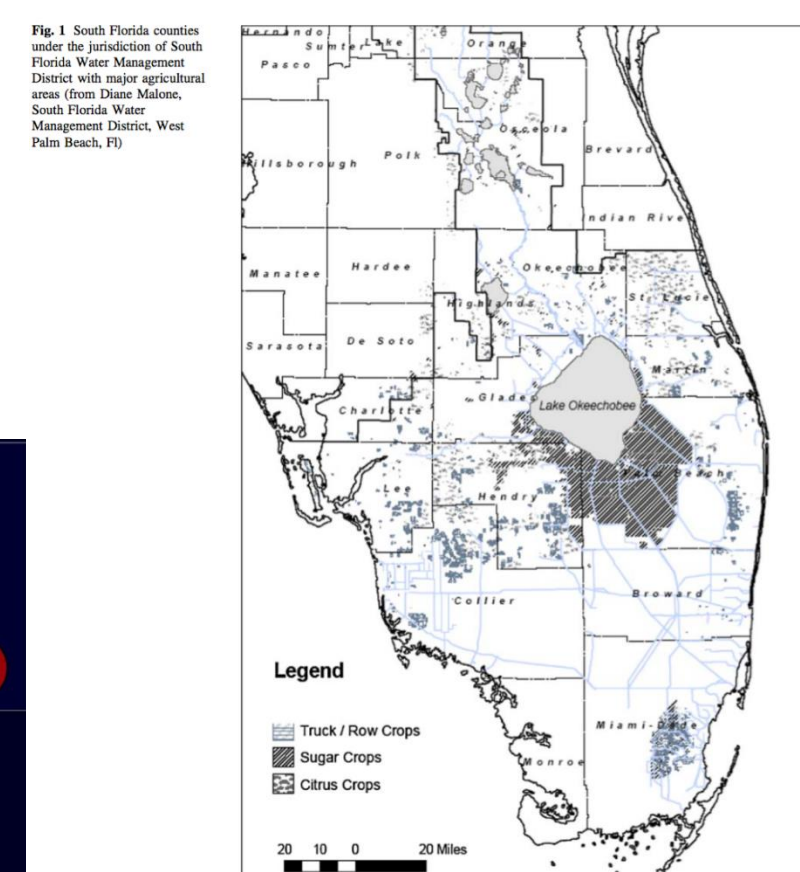
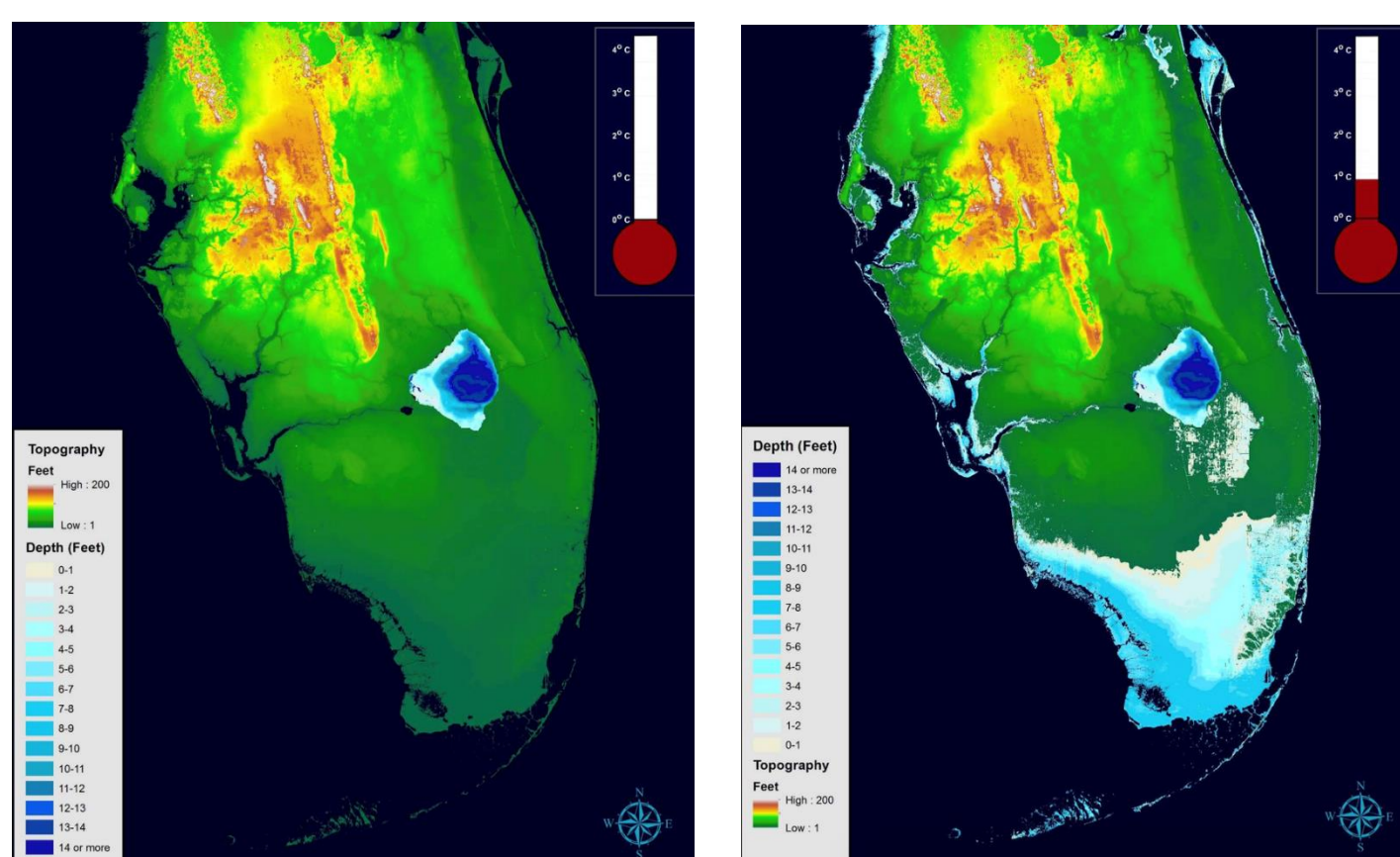


I expect to see differences in the mortality and swim performance response of Sailfin mollies at different salinities based on potential variation in the mode of action on fish physiology.



Source: http://water.usgs.gov/nawqa/pnsp/usage/maps/show_map.php?year=02&map=m5011

1) Salt water intrusion



Tunnel that measures oxygen consumption, swimming performance and behavior in aquatic animals

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Taken from the Everglades Foundation Organization