



**Effects of different
environmental factors on
Salvinia molesta Mitchell growth**

**R. Michael Smart and Chetta S.
Owens**

**ERDC- Lewisville Aquatic Ecosystem
Research Facility (LAERF)
Lewisville, TX 75057**





Approach

- Plants will be grown in microcosms of varying water chemistries (nutrients, pH, salinity)
- Manipulate conditions to affect plant nutrient composition – determine “critical” nutrient concentrations
- Determine factors potentially limiting growth

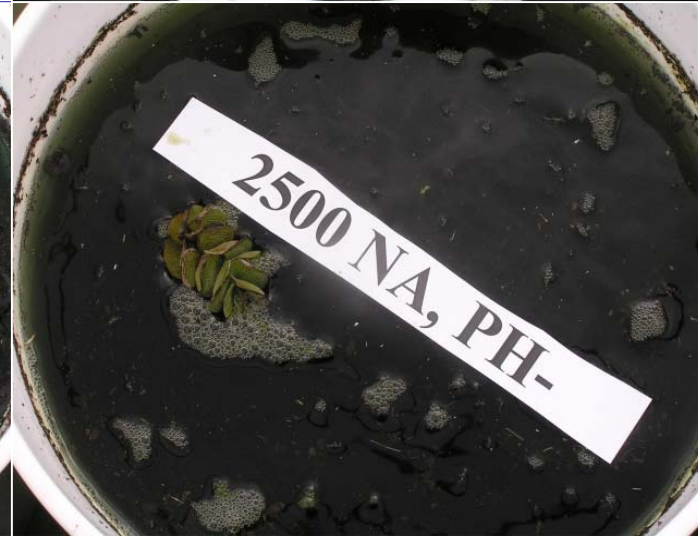
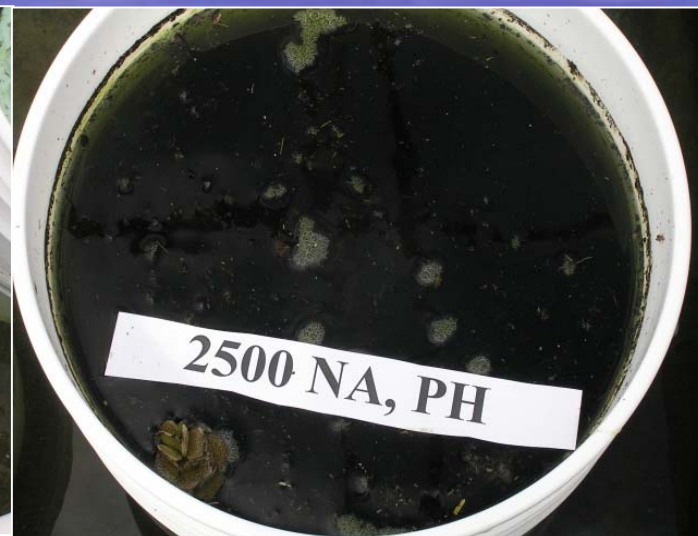


Salvinia Studies

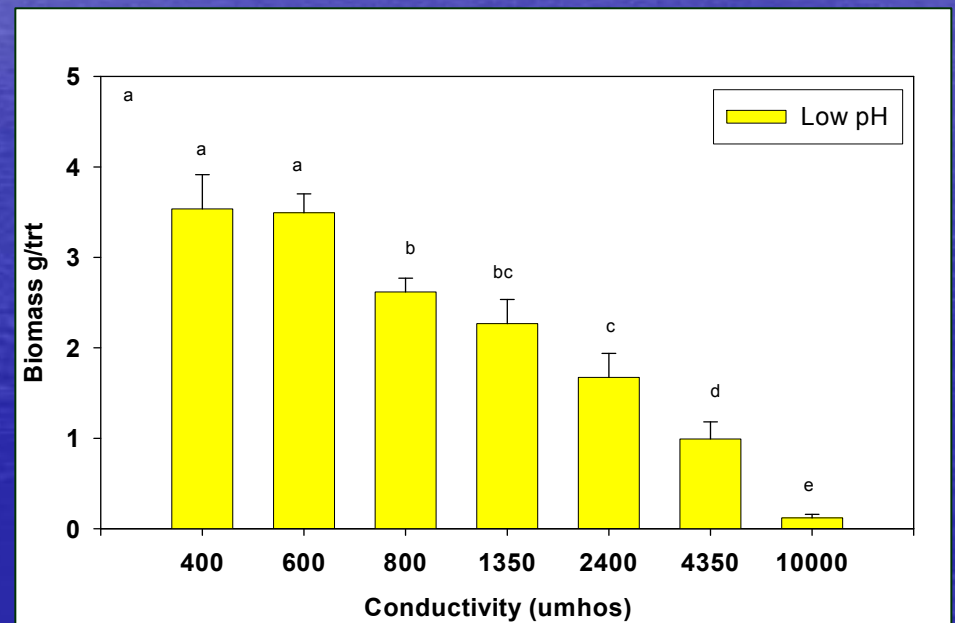
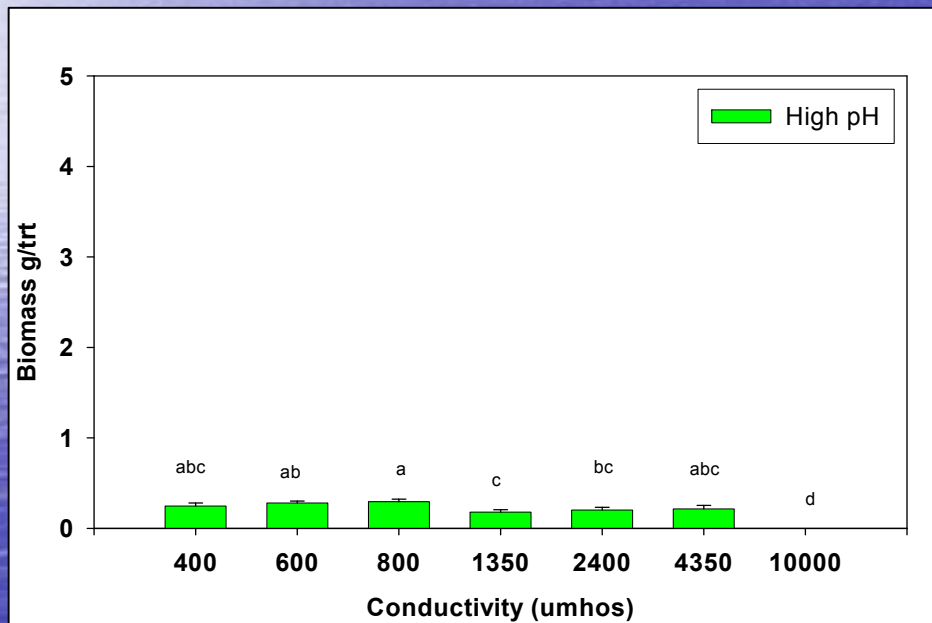


- Effects of different nutrients, conductivity, and pH regimes on *Salvinia molesta* growth
- Effects of salinity (conductivity) and pH on growth of giant salvinia (*Salvinia molesta* Mitchell)
- Effects of different nutrient regimes on growth of giant salvinia
- Effects of salinity (conductivity) on recovery of giant salvinia
- Effects of different light regimes on giant salvinia growth
- Effects of different depths on giant salvinia growth

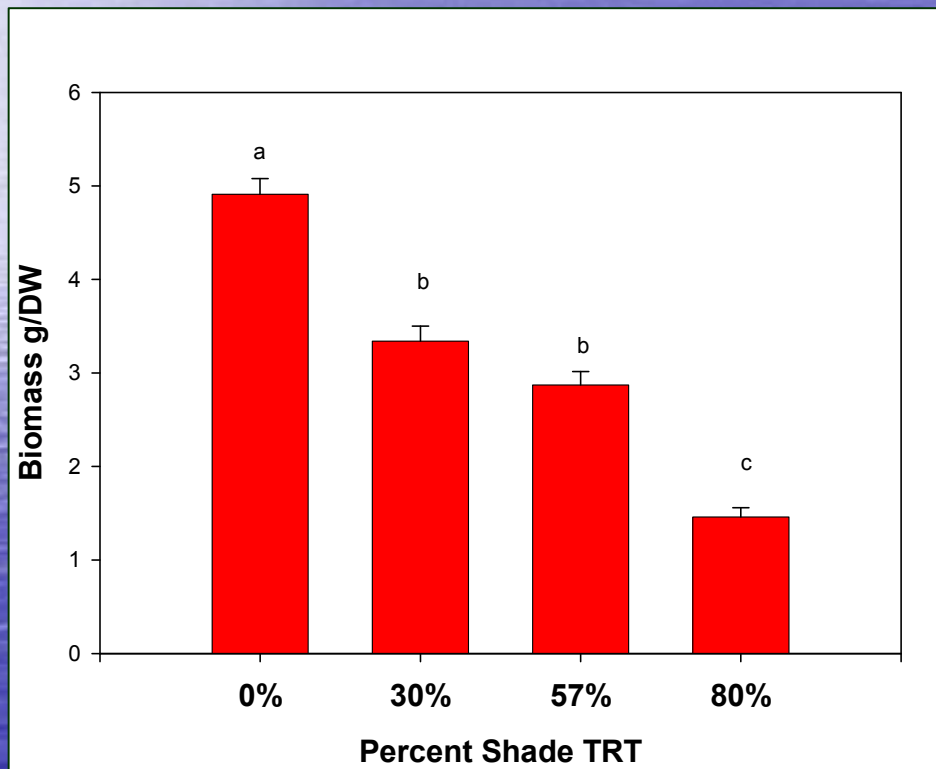
Conductivity and pH -7 days



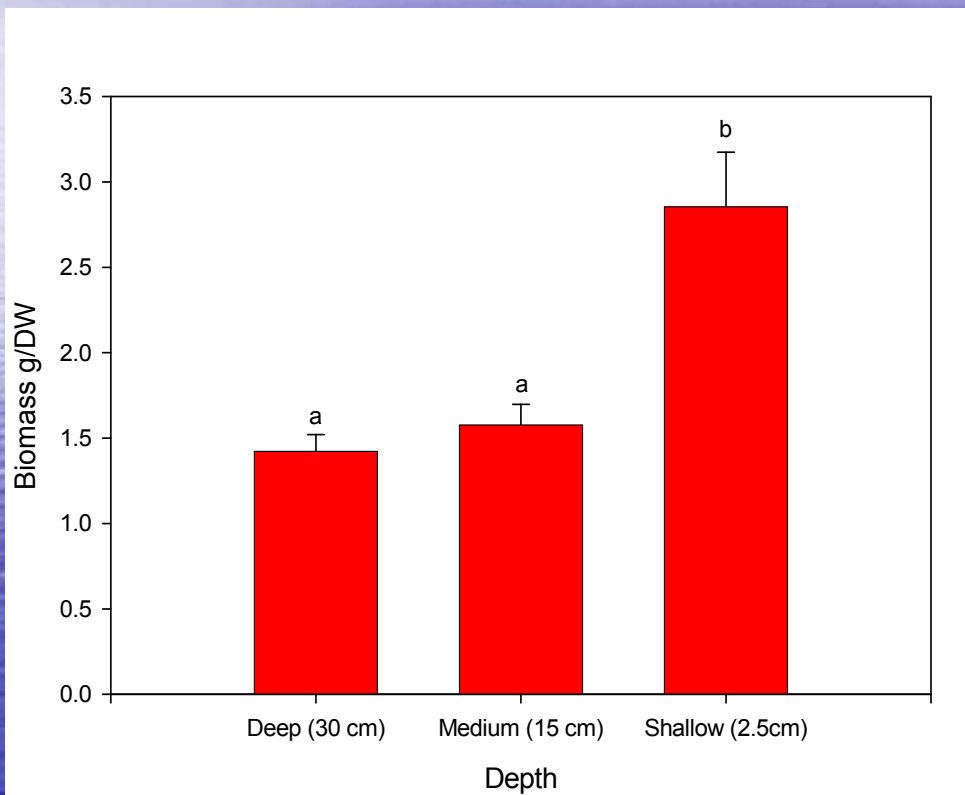
pH and Conductivity Effects on the *Salvinia molesta* growth



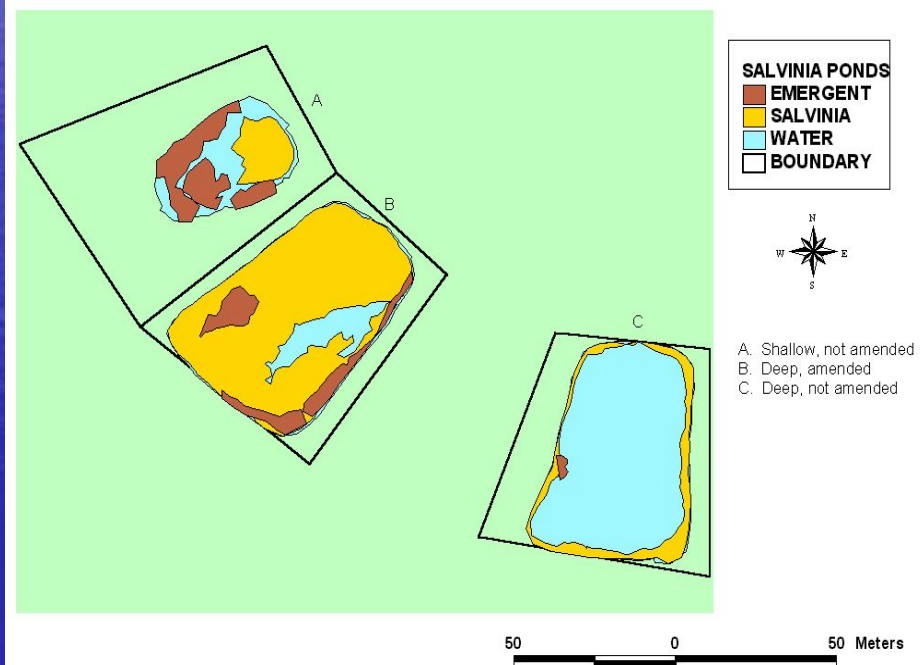
Salvinia and percent shade



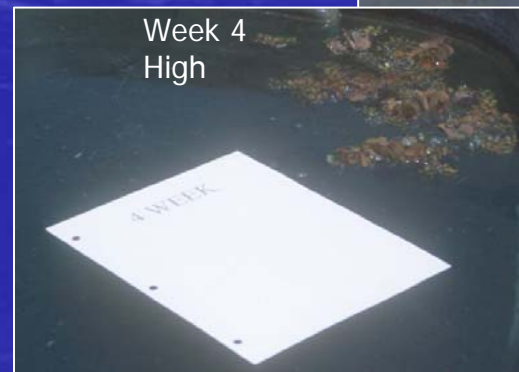
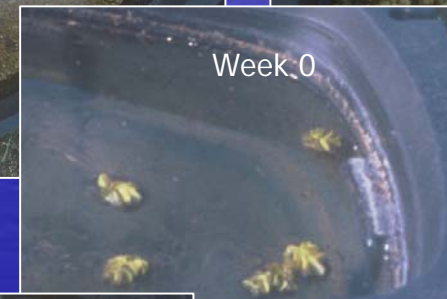
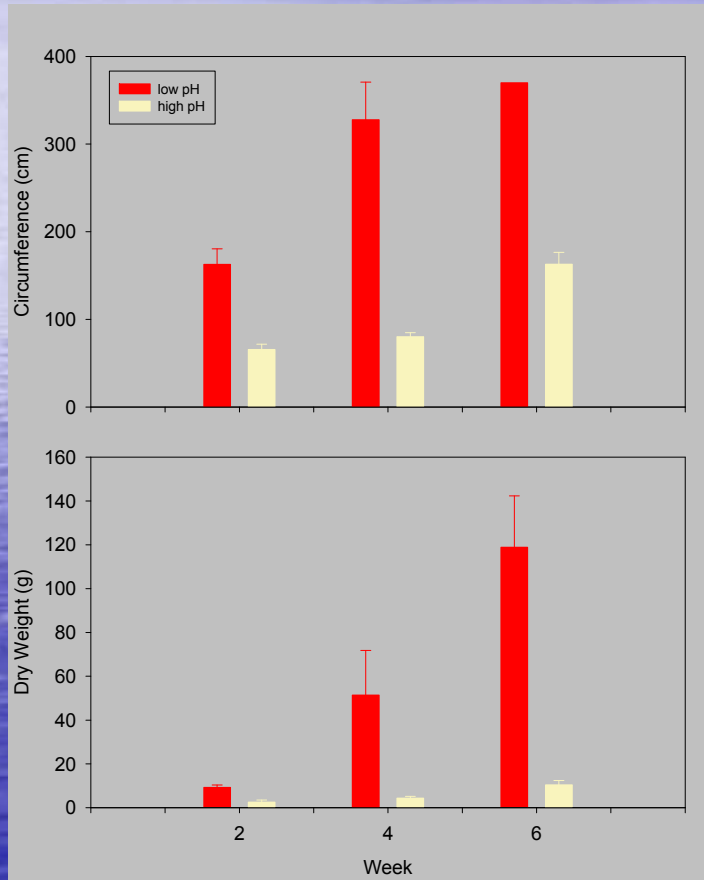
Salvinia and depth



Salvinia molesta



Water Chemistry Effects on the Growth of *Salvinia molesta*



Biocontrol Section-LAERF



Photo Credit: USDA, Scott Bauer