



Summary of New Science

Ecological Effects of Low Lake Okeechobee Water Levels – Apple Snail Restoration

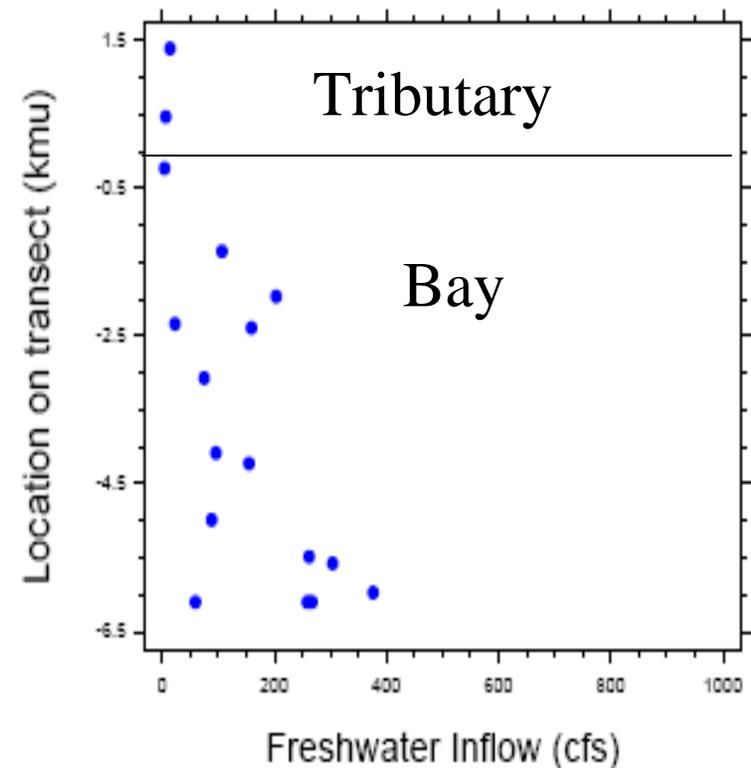


Freshwater Inflow to Coastal Areas

- Previous work has concentrated on effects of inflows on stationary habitat, such as Seagrass Meadows and Oyster Bars
- Recent work has concentrated on nursery areas for young fish and shell fish
 - Example from Mullock Creek a tributary to Estero Bay
 - Manage flows > 50 cfs exclude gelatinous predators from nursery areas in tidal tributaries

Gelatinous Predator of Fish Larvae

Eirene sp.

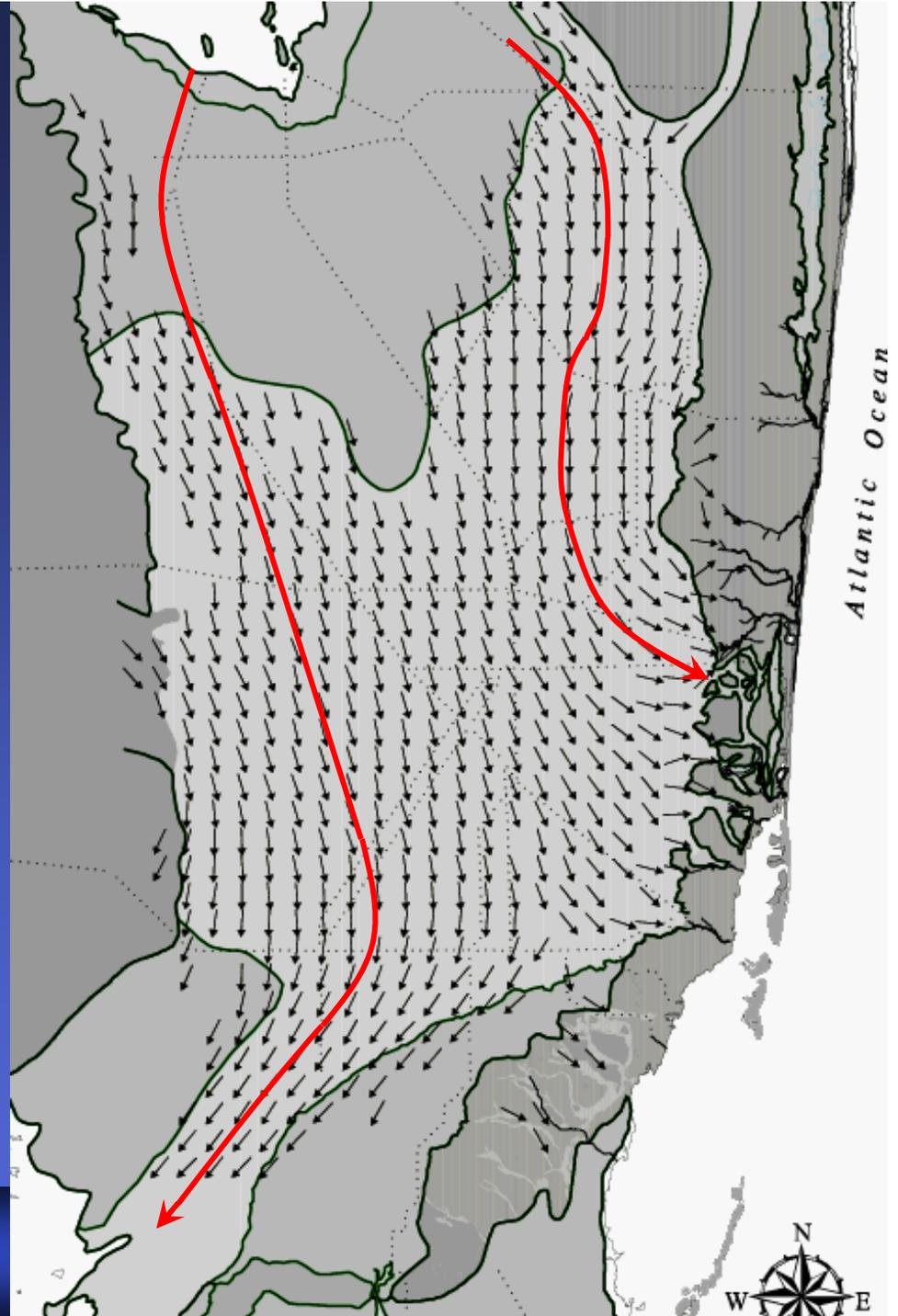
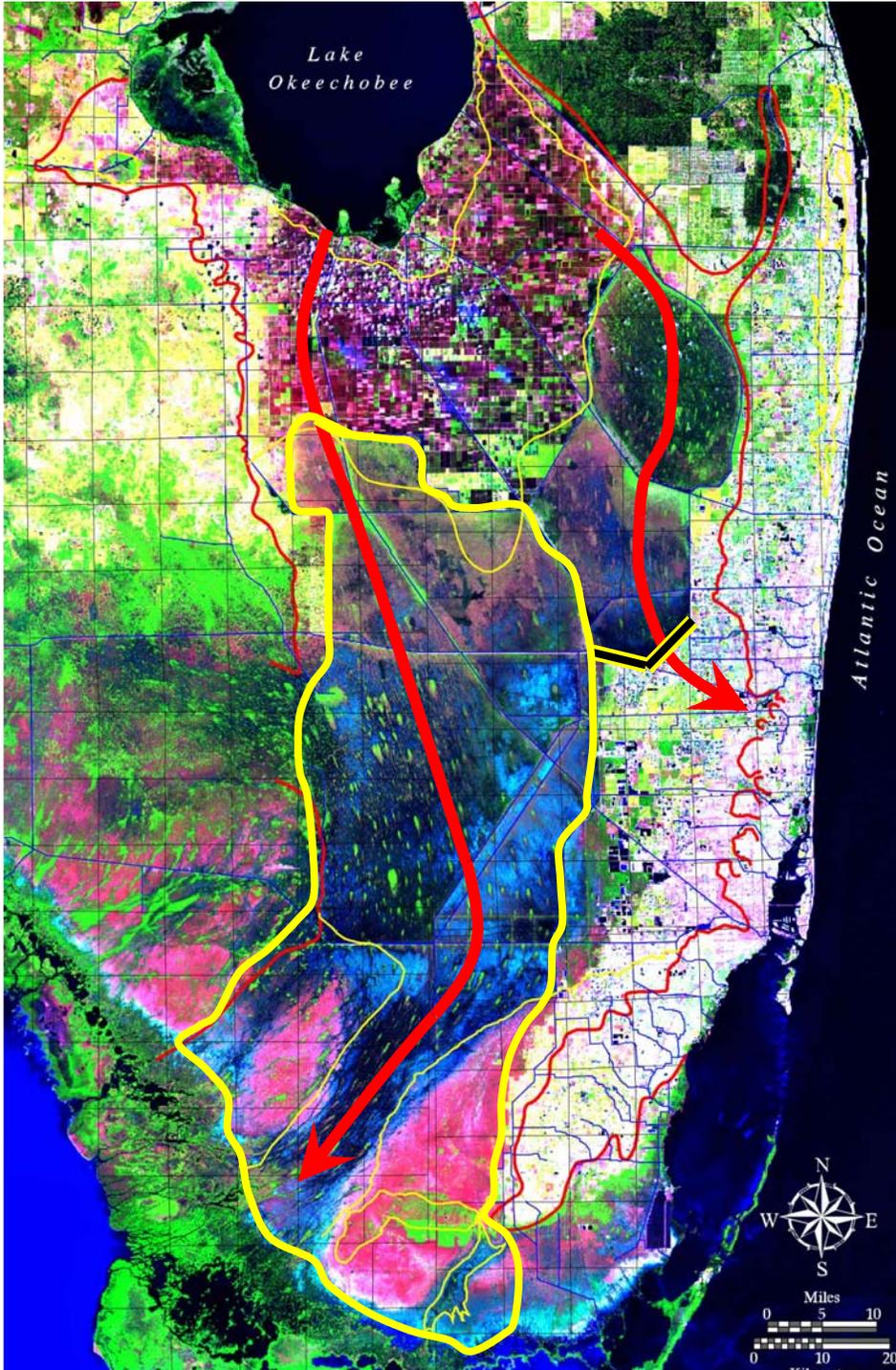


Restoring Wildlife Habitat in Nutrient Impacted Areas of the Everglades



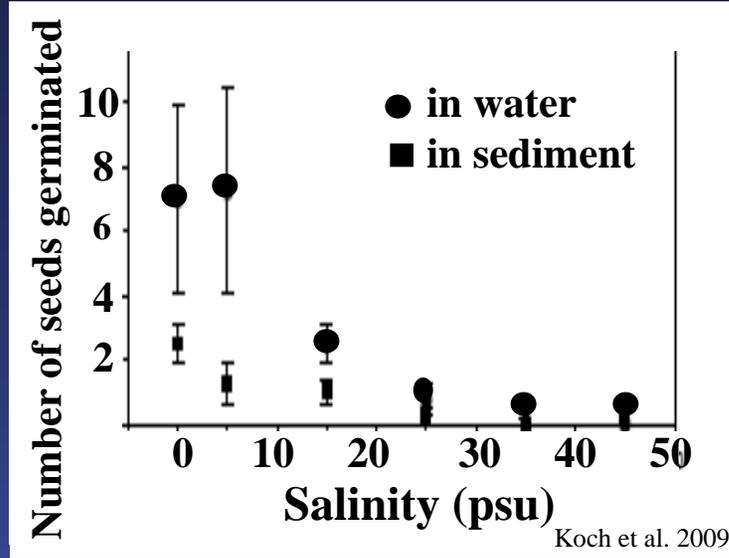
- Creation of “open” areas on P enriched causes significant habitat improvements
 - Increased oxygen concentrations in water column
 - Open plots are extremely attractive to wading bird foraging; birds almost non-existent in control plots





Florida Bay Restoration: the Return of Widgeon Grass?

- Widgeon Grass (*Ruppia*) is now rare and limited to inshore ponds
- SFWMD-FAU research shows that *Ruppia* requires low salinity to reproduce
- As restoration increases the flow of freshwater into Florida Bay, *Ruppia* is expected to expand in the transition zone and into the northern bay



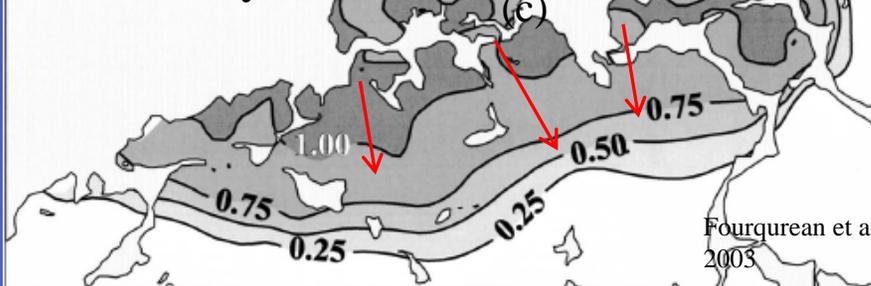
microcosm experiments



Seeds after 184 days in sediment



Statistical model results: probability of *Ruppia* expansion into FL Bay with lower salinity



Questions?

