



# **Fire Effects on Wading Bird Foraging Habitat and Resources**

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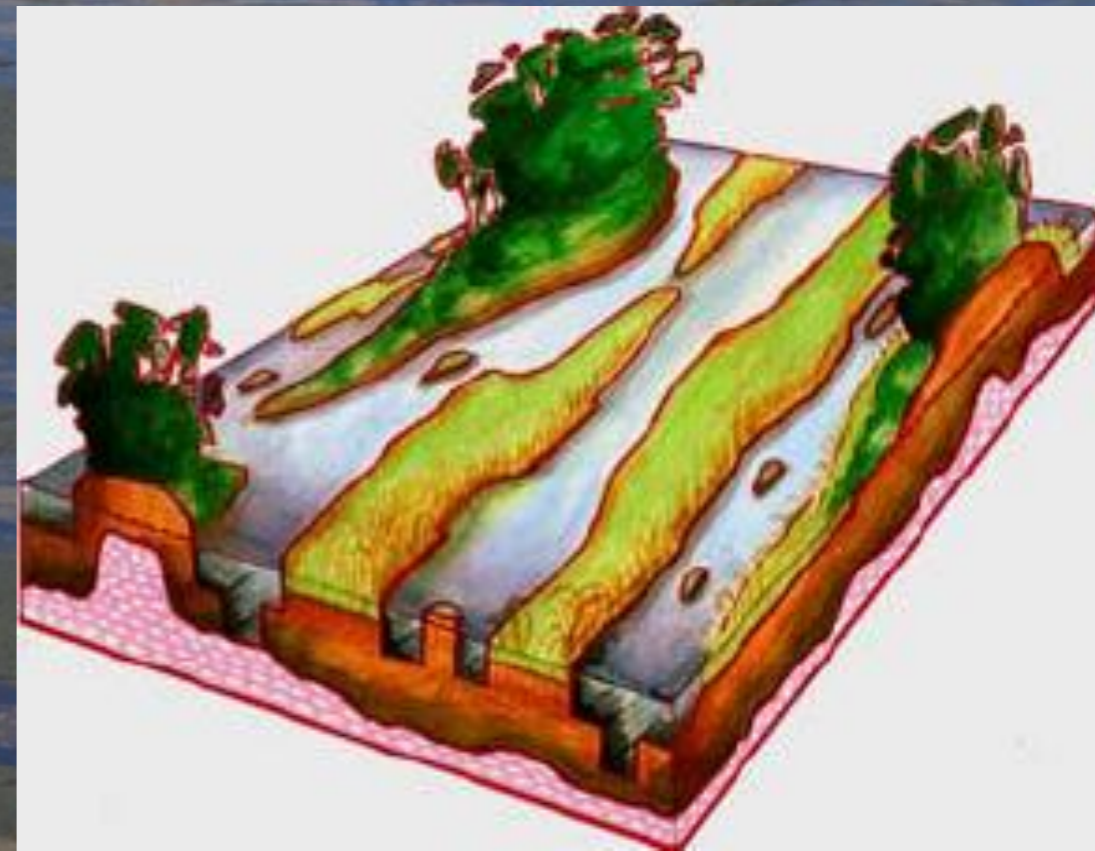


# Prescribed burns:

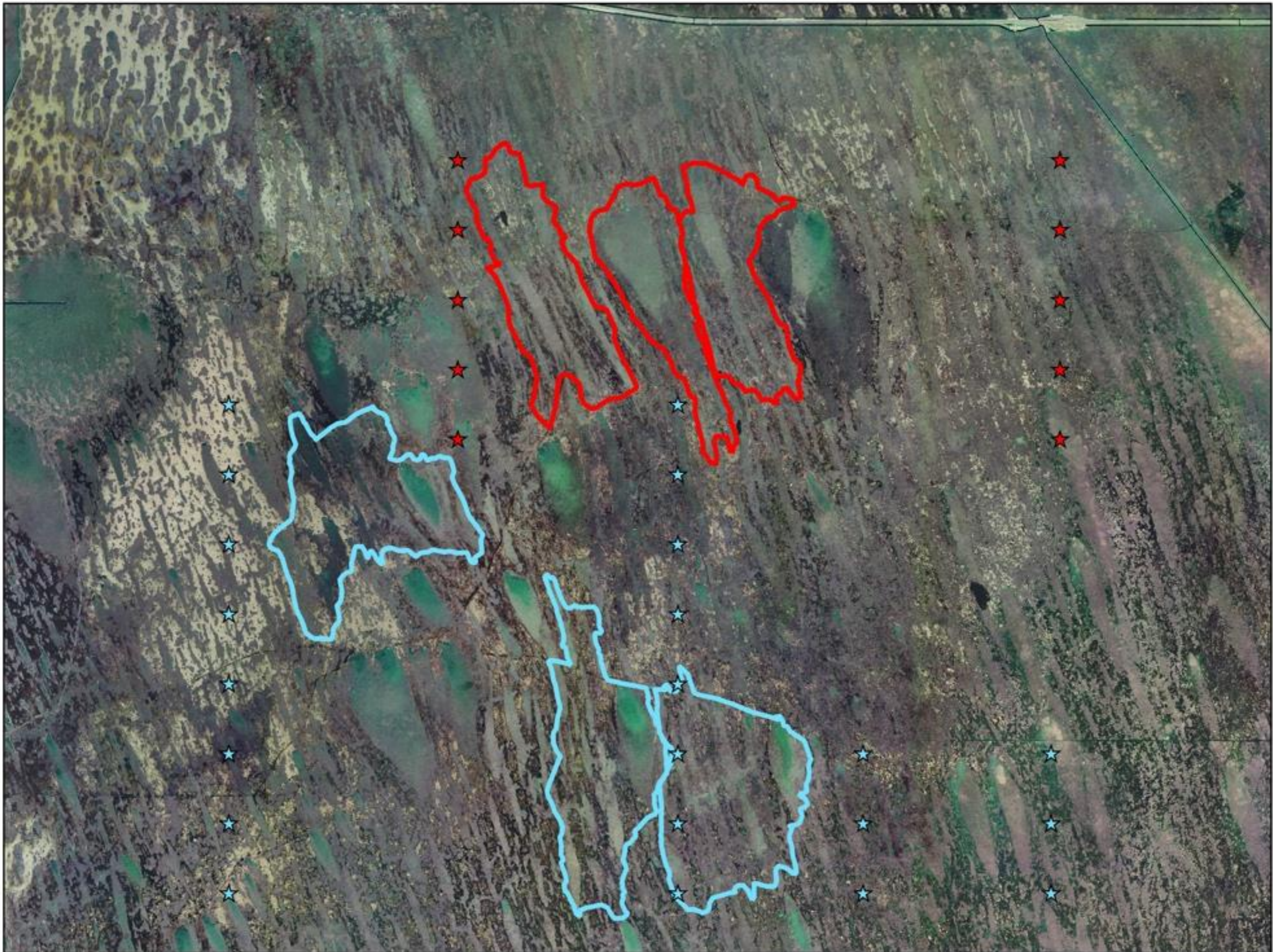
Fuel reduction

Maintain landscape features

Habitat for wildlife









**Track**



**Burnt Slough**



**Grass**

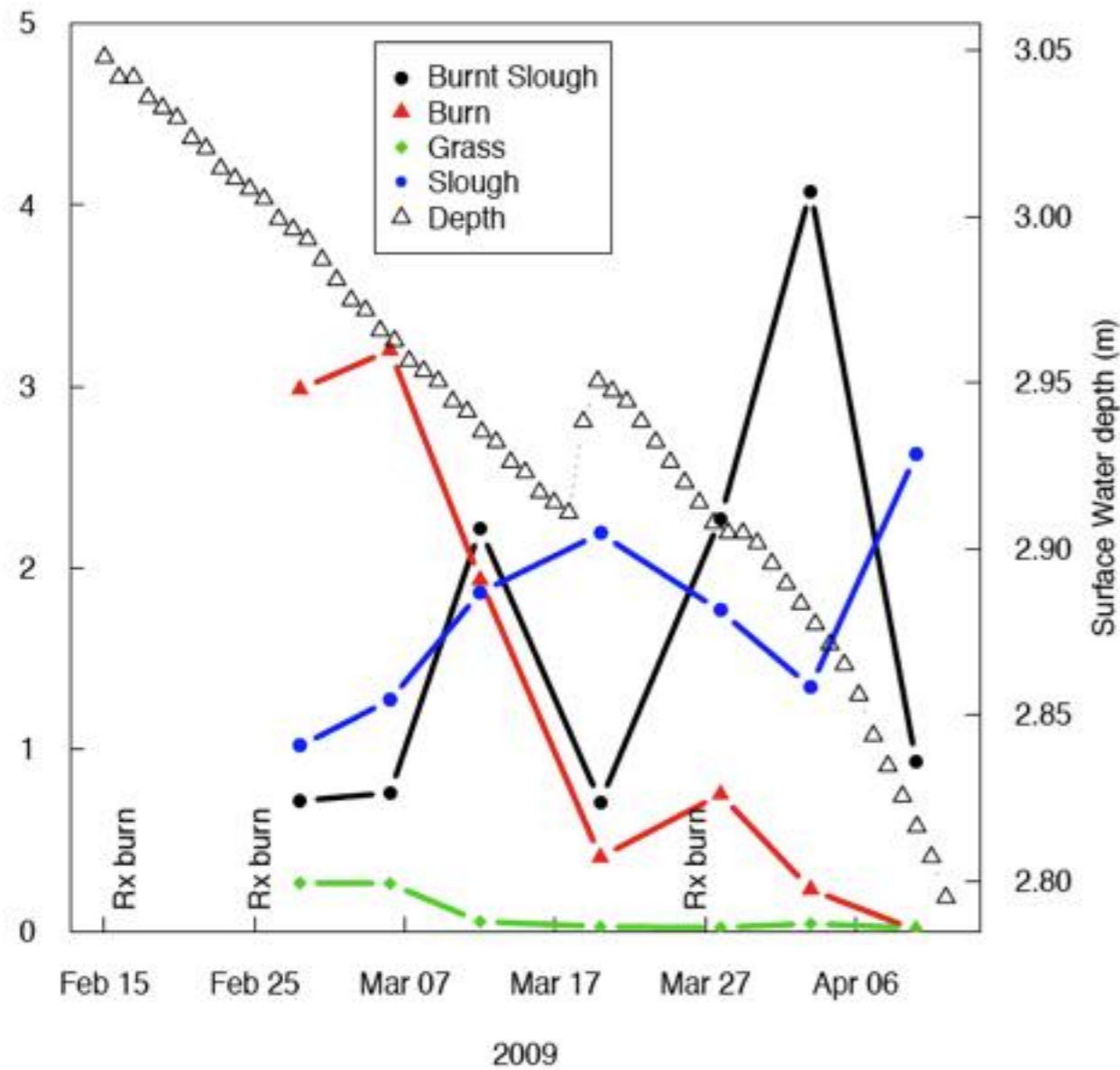
**Burn**



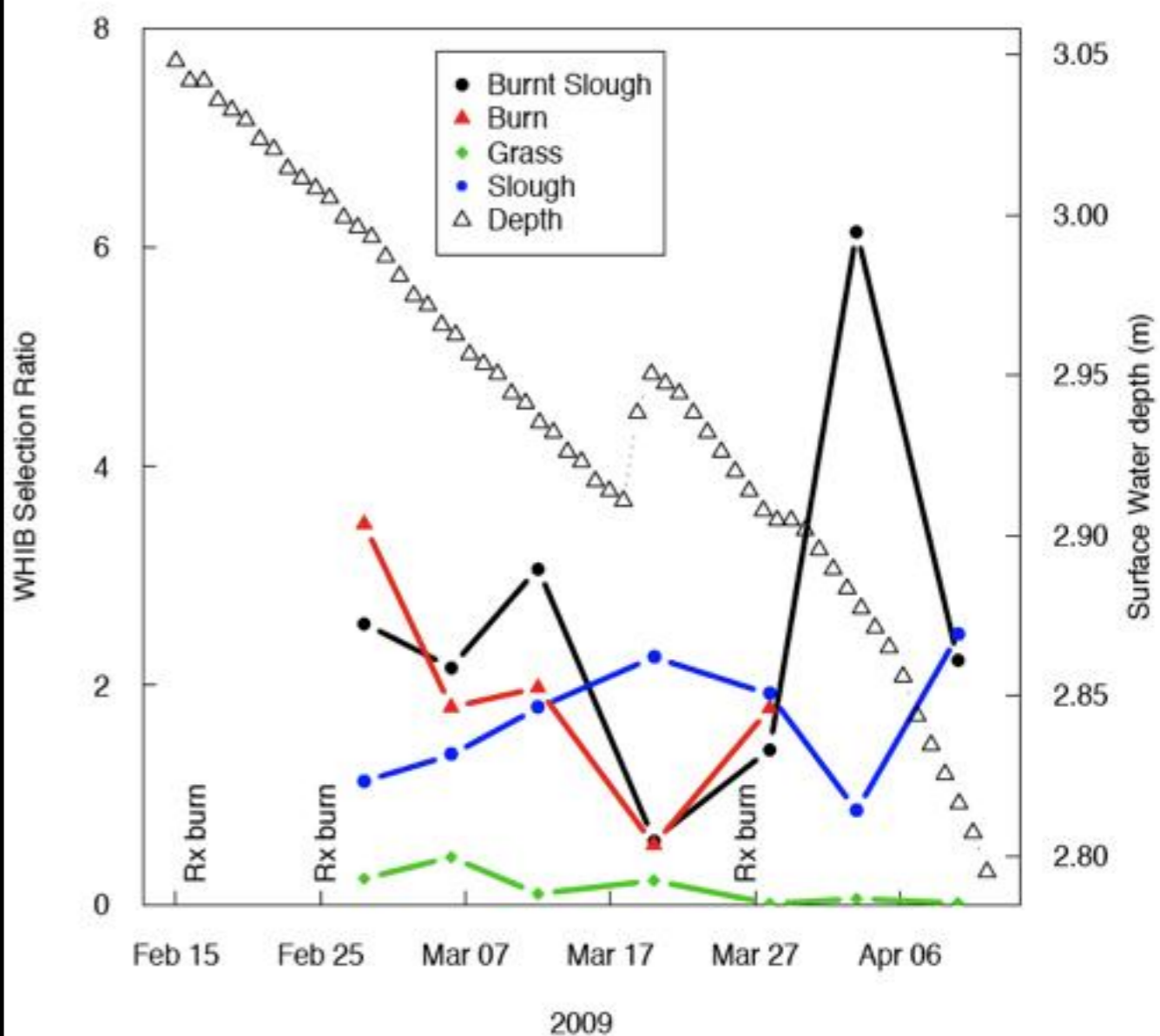
**Slough**

# Do Birds Select Burns?

## Great Egret



## White Ibis



# Egret Foraging Success?

- Capture rate greater in burnt sloughs
- Capture efficiency higher in burns

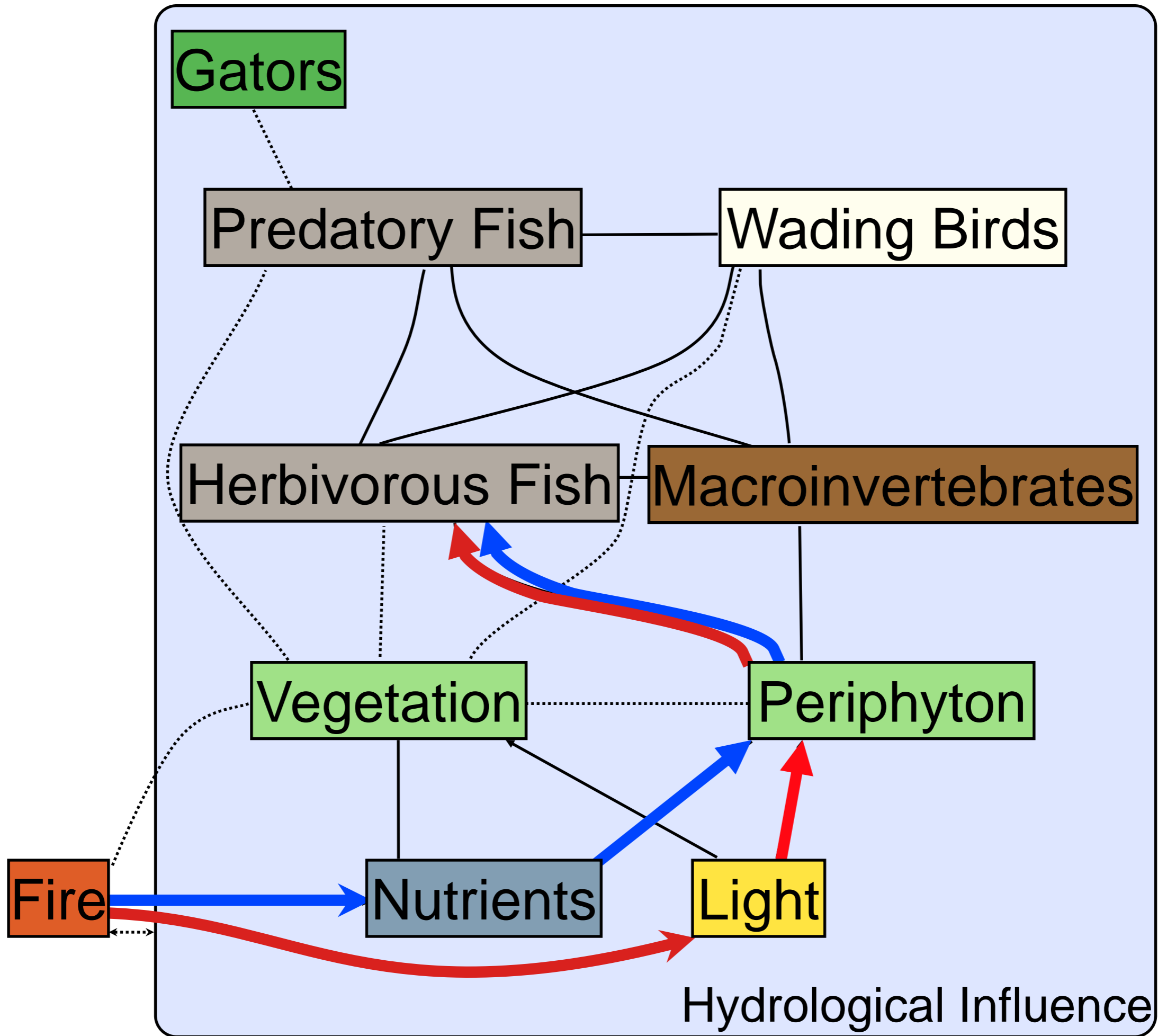




# Why are birds attracted?

- Fire Maimed or Killed Prey?
- Bigger Prey?
- More Prey?





**Nutrients + Light**



**Nutrients only**



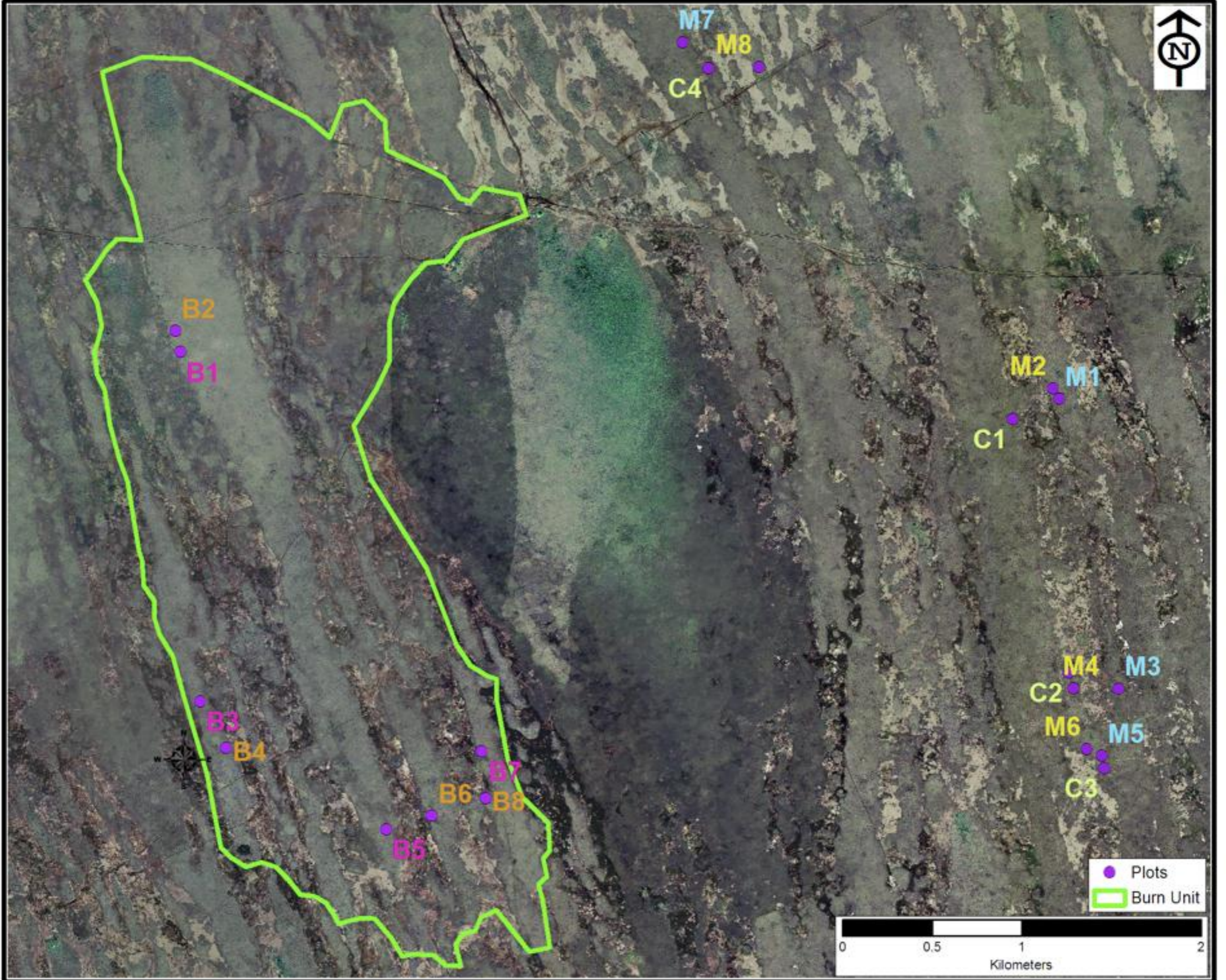
**Light only**



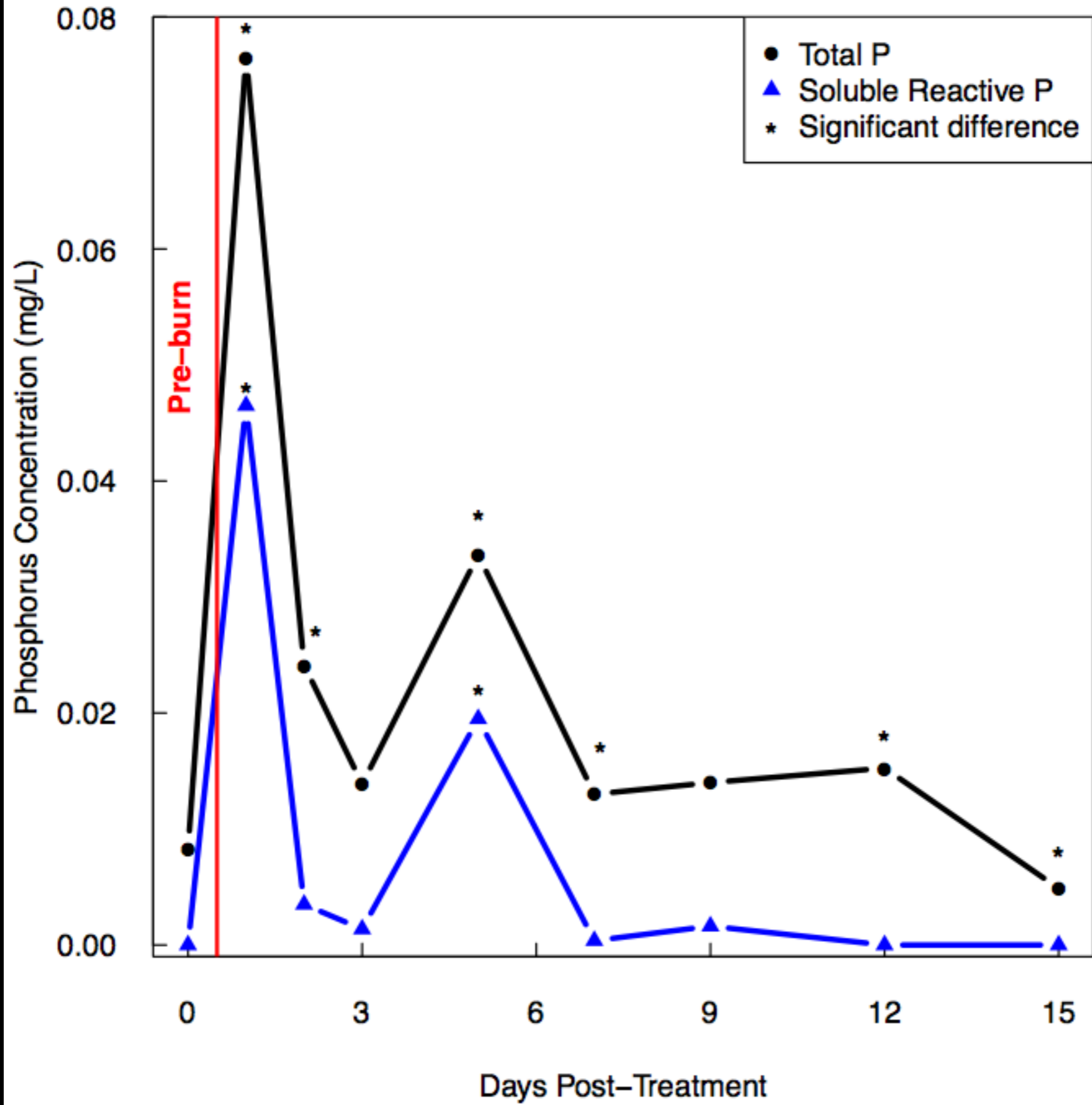
**No Nutrients or Light**



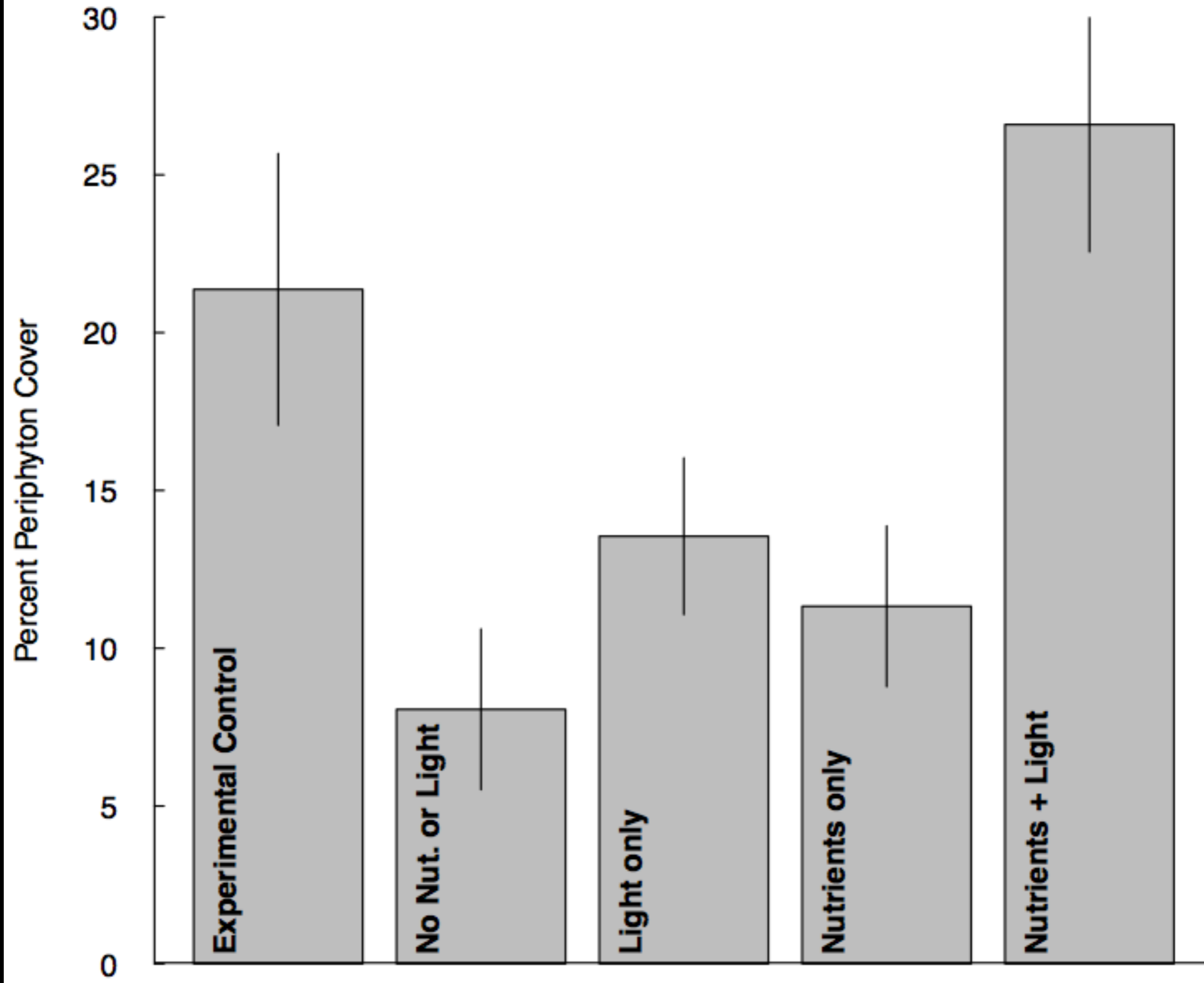
**Exp. Control**



# TP - SRP



# Periphyton

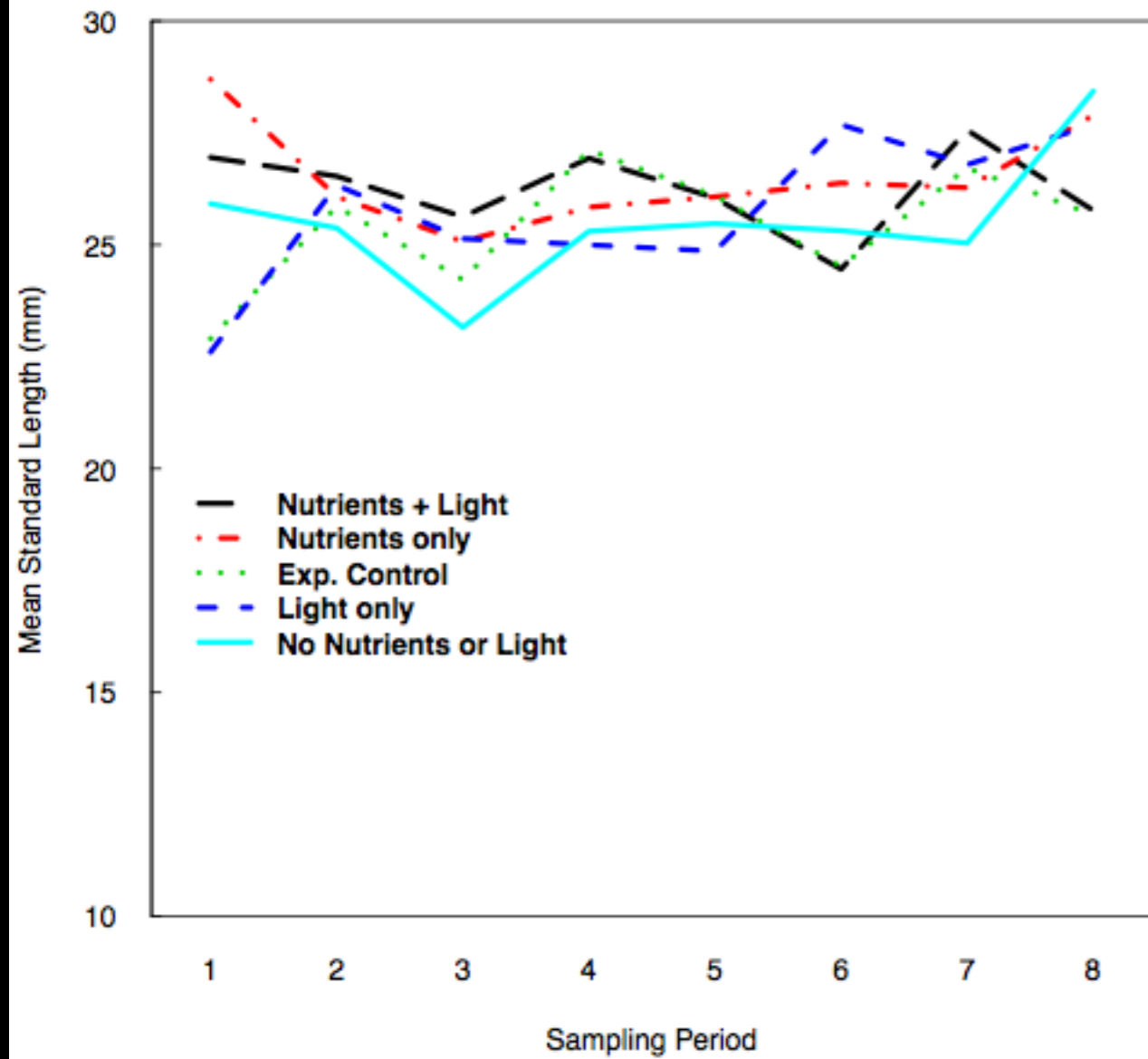


$\chi^2=16.7, p=0.002$

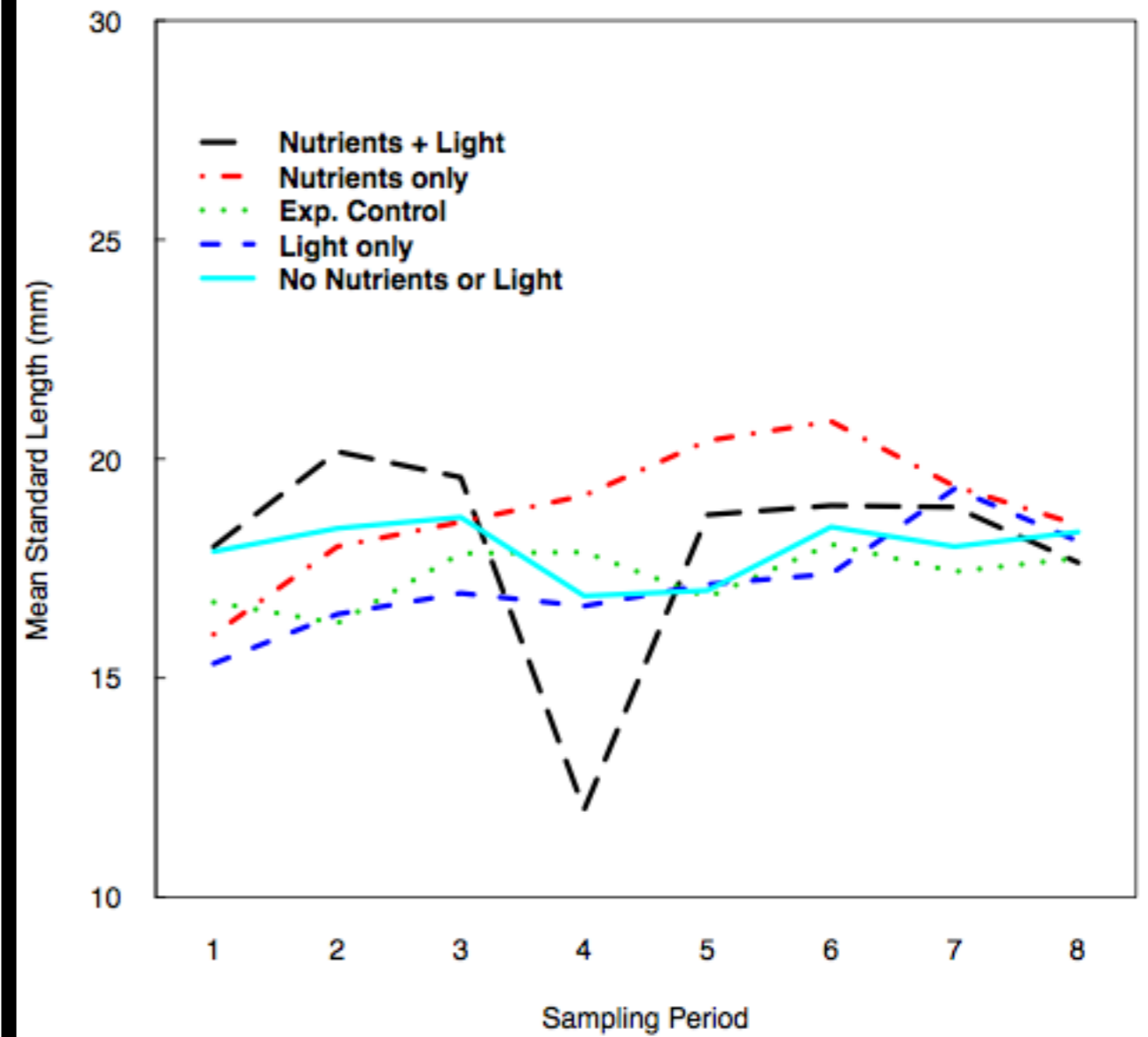
Treatments

# Fish

All Fish



Least Killifish (*Heterandria formosa*)



# Fire Effects

	Water	Periphyton	Fish Metrics
No Nutrients or Light			
Light			
Nutrients	+		+/-
Nutrients + Light	+	+	+/-



# Fire Effects on Wading Birds

- Periphyton - increase
- Fish - no response
- Wading birds select burned areas
- Great egrets more efficient foraging in burns
- Greater prey accessibility

# Acknowledgments

- **Technicians & Field Help:** Britt Burtner, Stephanie Coates, Brandon Faustini, Jason Fidorra, Kaety Kerr, Erin Posthumus, Melissa Schlothan, Travis Schrage, Chris Stiegler, Aly Williams, John Simon
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# Questions?



# Post-Treatment Sampling

- .Eight 10-day sample periods (~2.5 months)**
- .Vegetation and Periphyton Cover**
- .Periphyton - Chlorophyll *a***
- .Water depth**
- .Fish - (3 minnow traps for 2 hours) -  
measured length & mass**