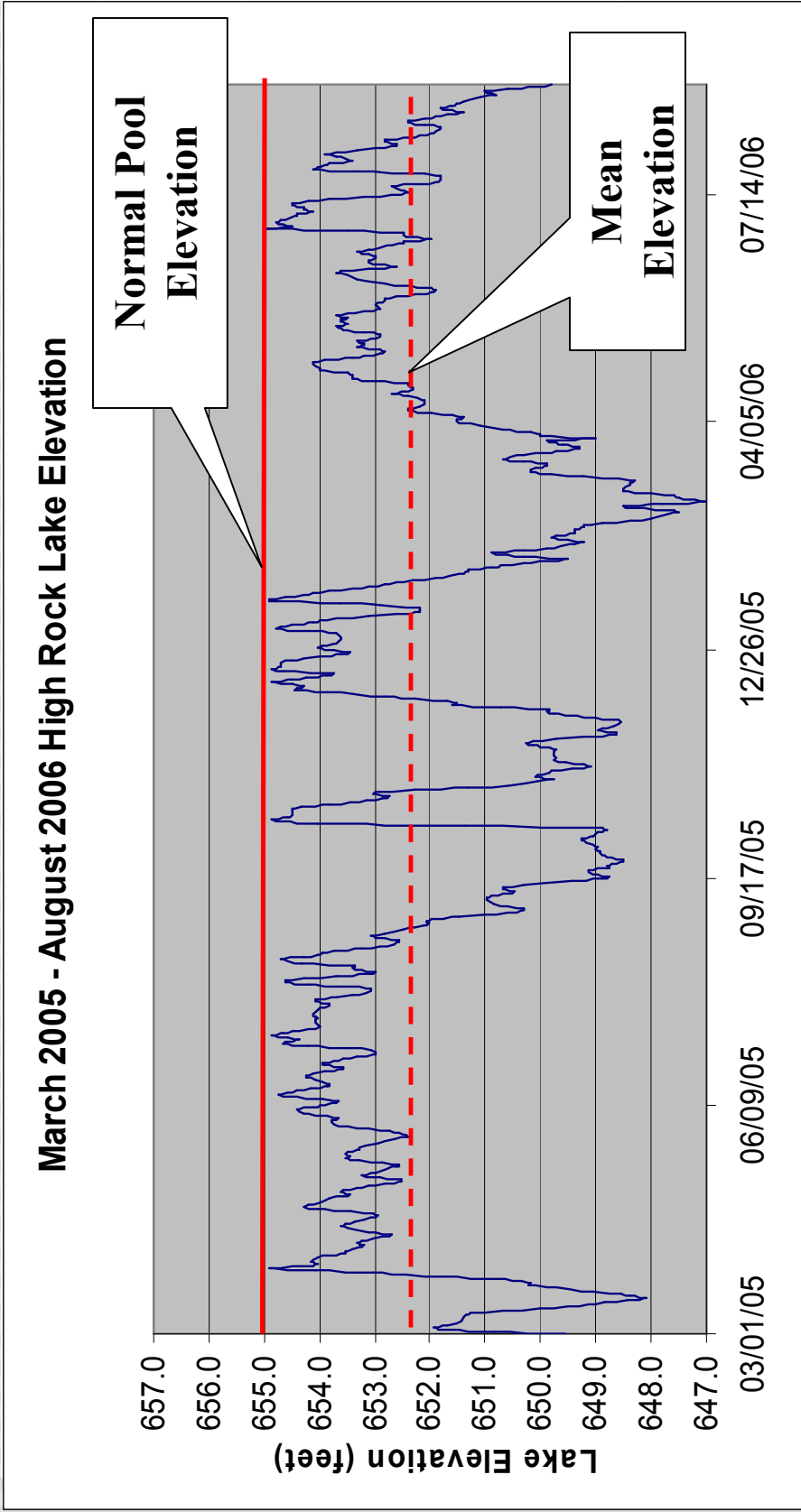


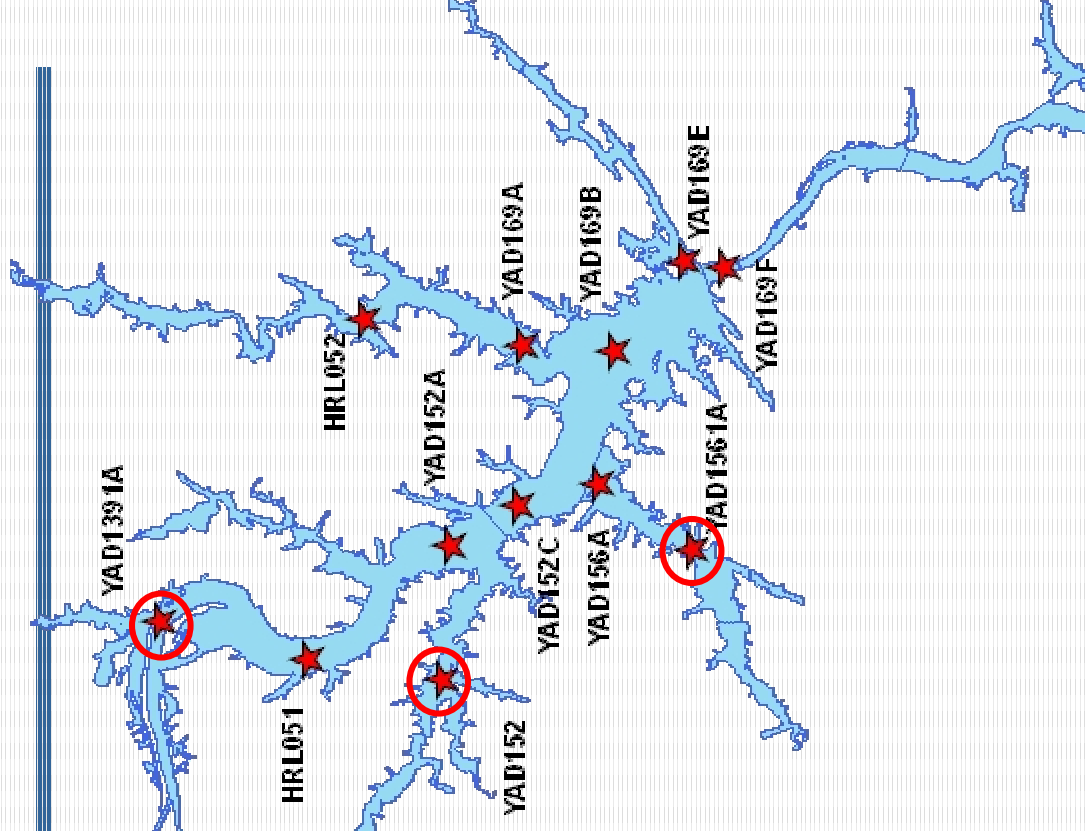
High Rock Lake Data Summary

March 2005 – August 2006

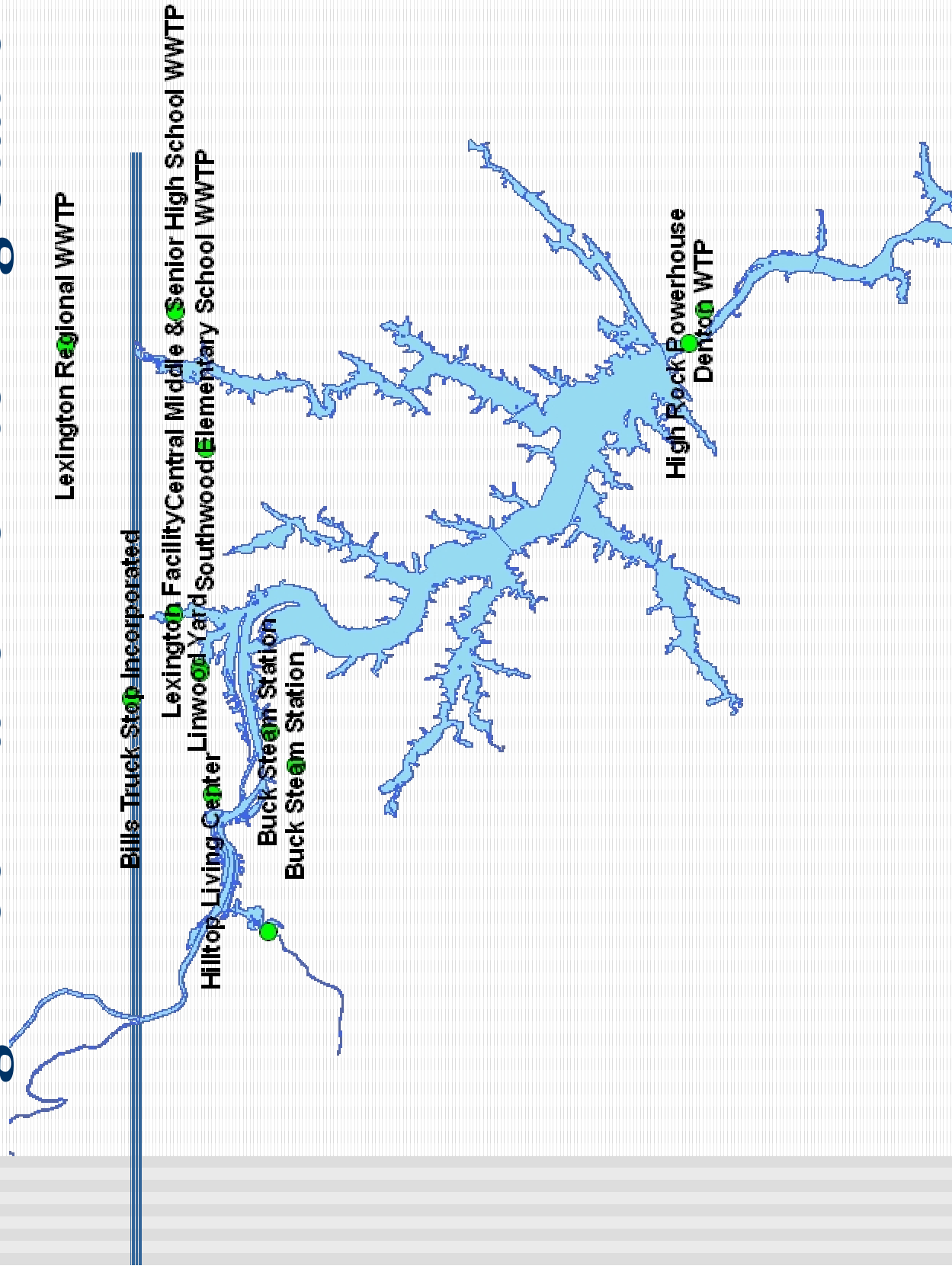
High Rock Lake Daily Elevation March 2005 – August 2006



High Rock Lake Monitoring Stations

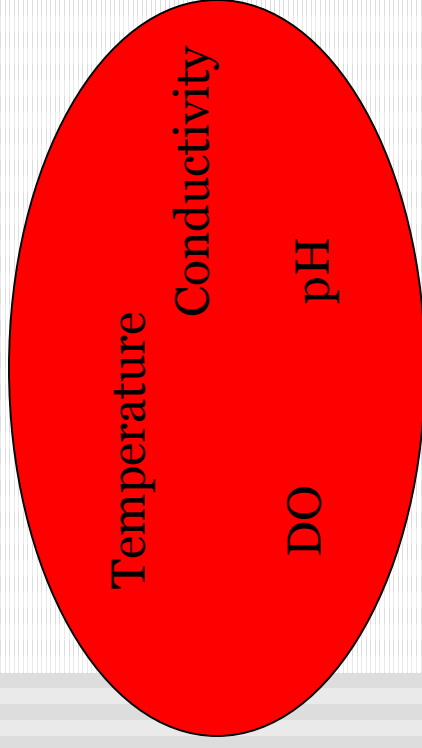


High Rock Lake Monitoring Stations

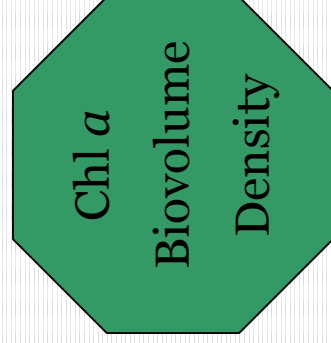


High Rock Lake Sampling Parameters

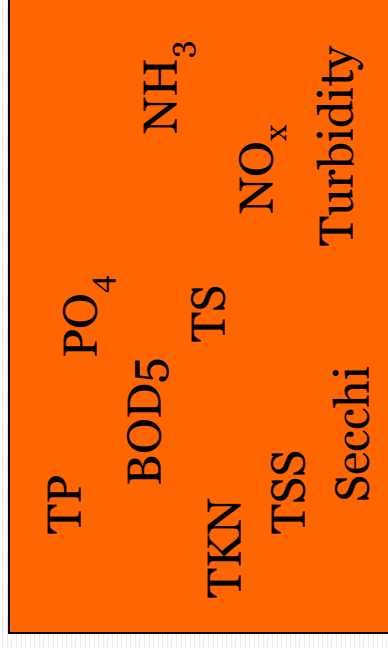
Physicals



Algae

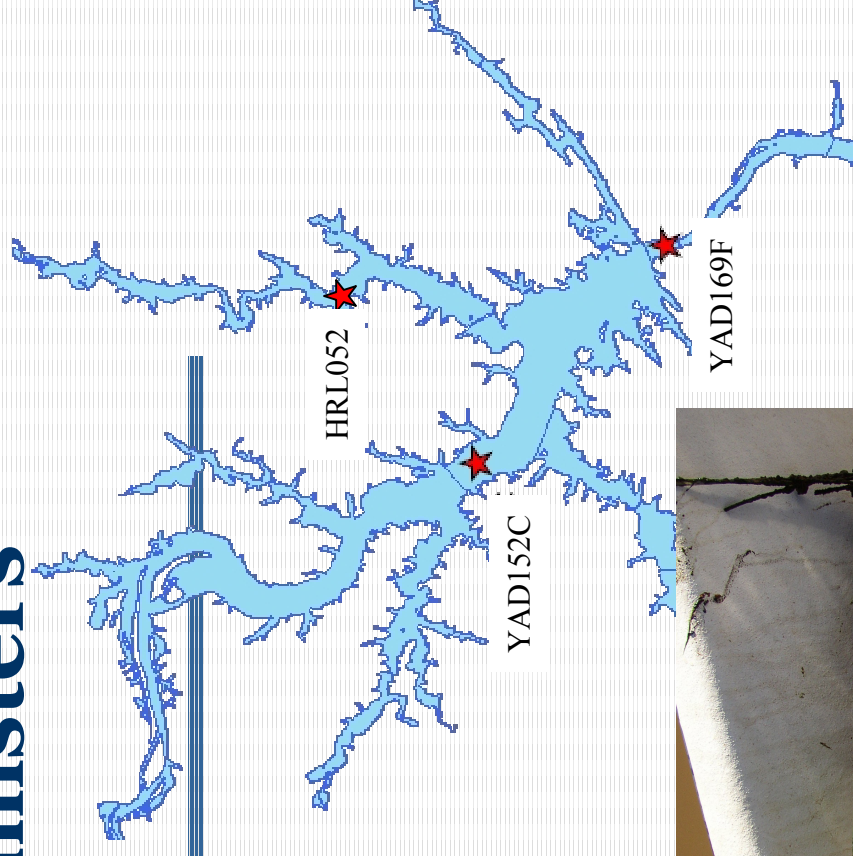


Chemical



High Rock Lake

Thermistors

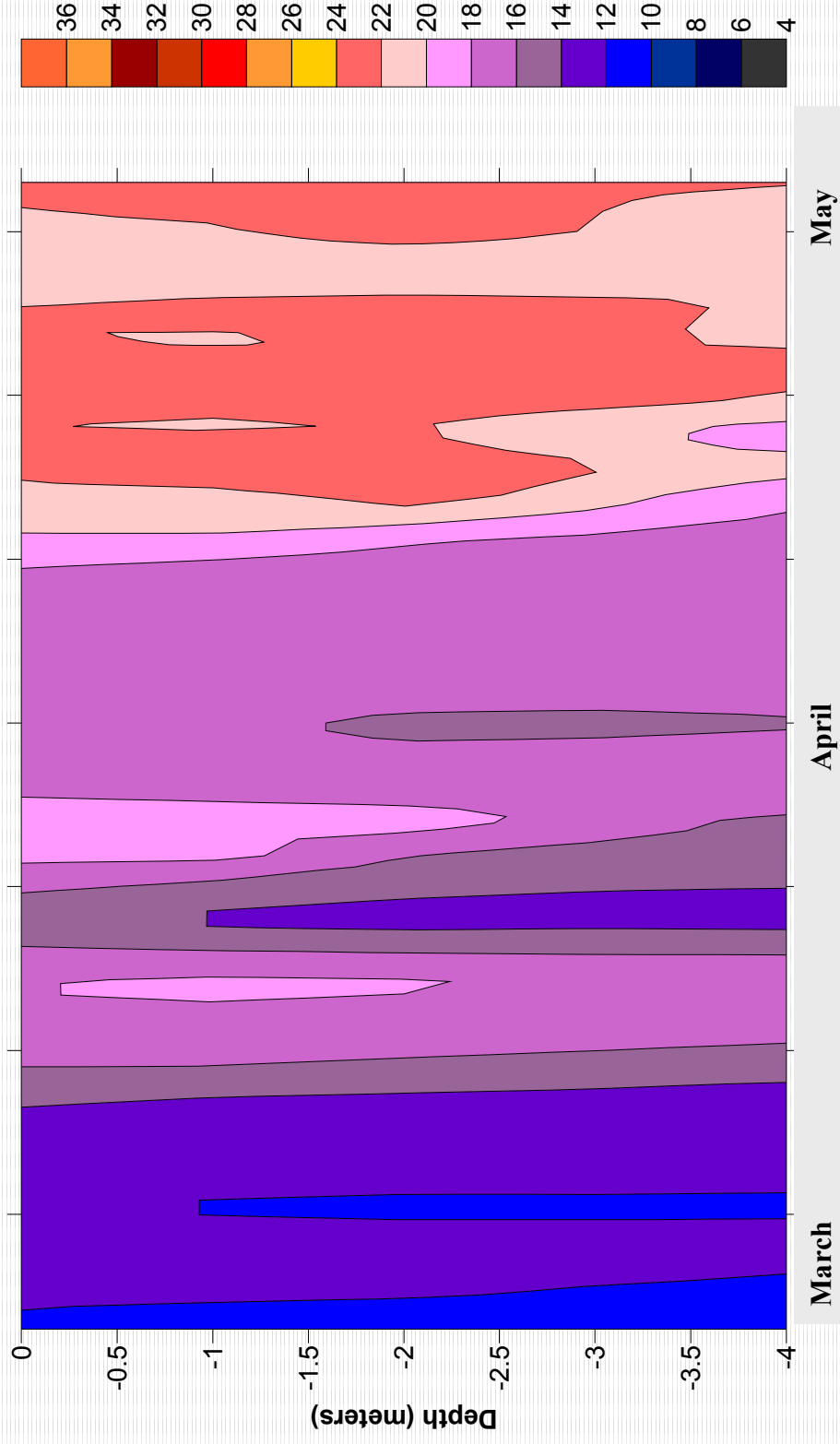


3 Deployment Stations:

- YAD152C
- YAD169F
- HRL052

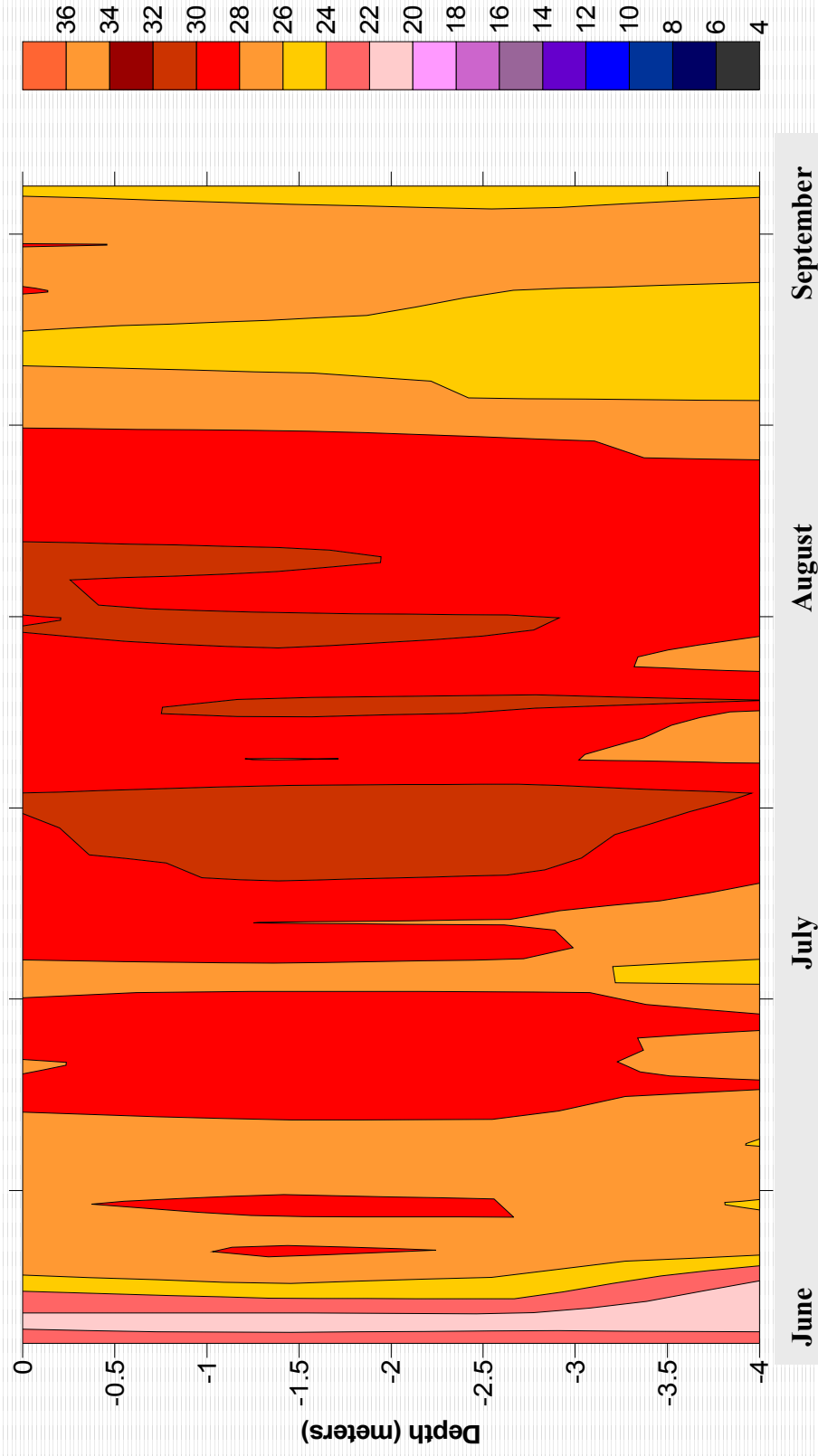
High Rock Lake Temperature Profiles: Station YAD 152C

Temperature Profile (°C) March - May 2005



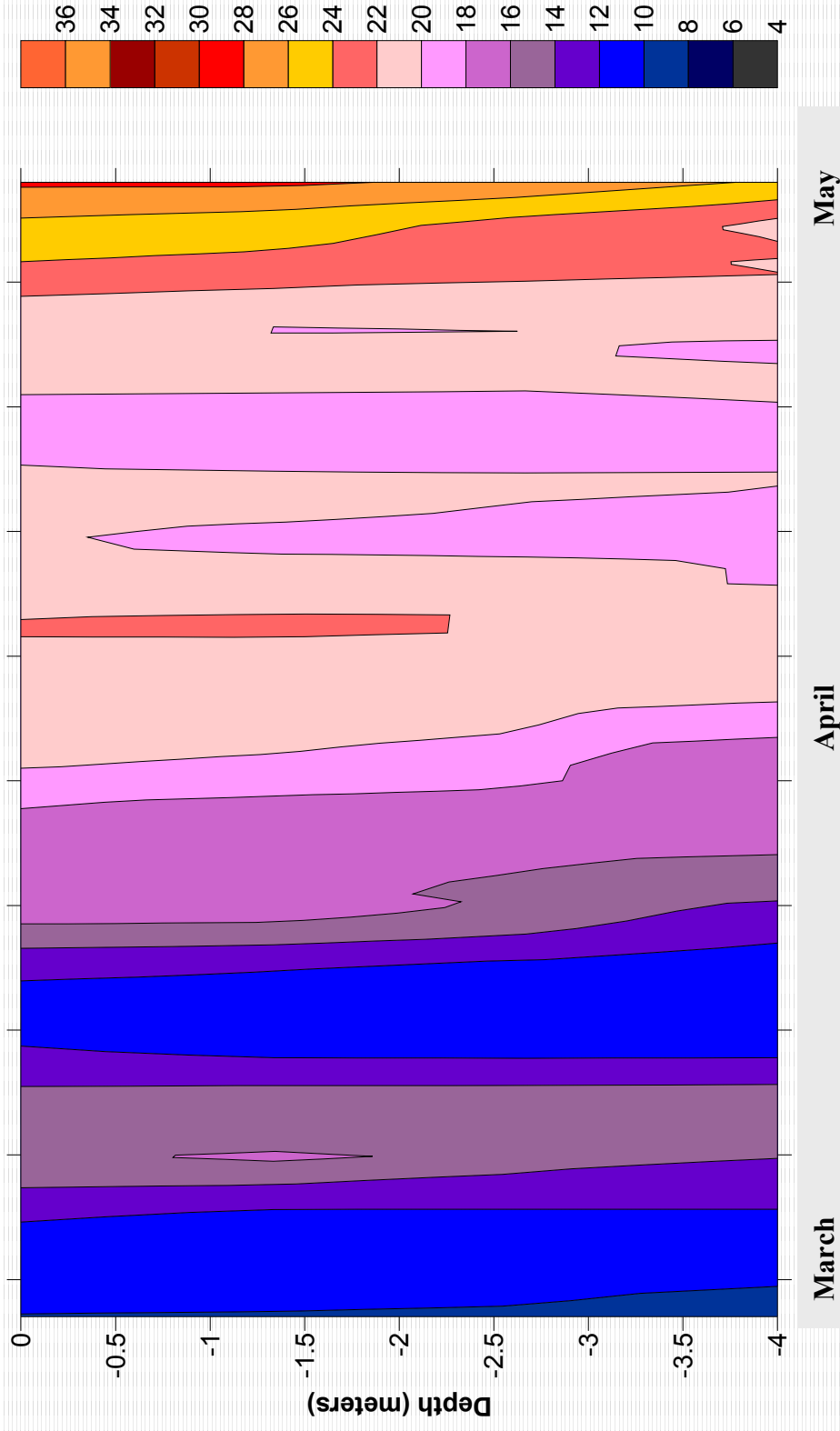
High Rock Lake Temperature Profiles: Station YAD 152C

Temperature Profile (°C) June - September 2005



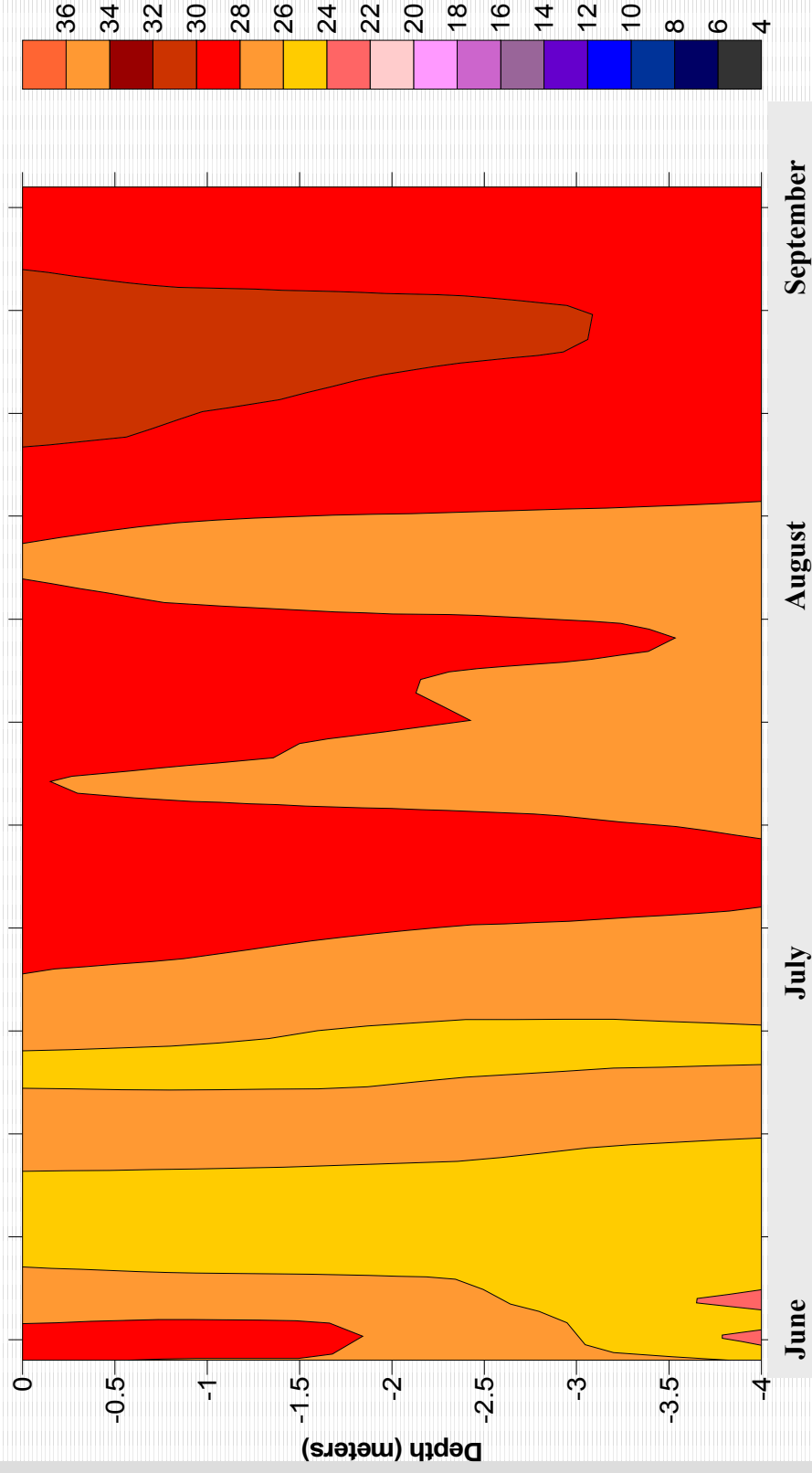
High Rock Lake Temperature Profiles: Station YAD 152C

Temperature Profile (°C) March - May 2006

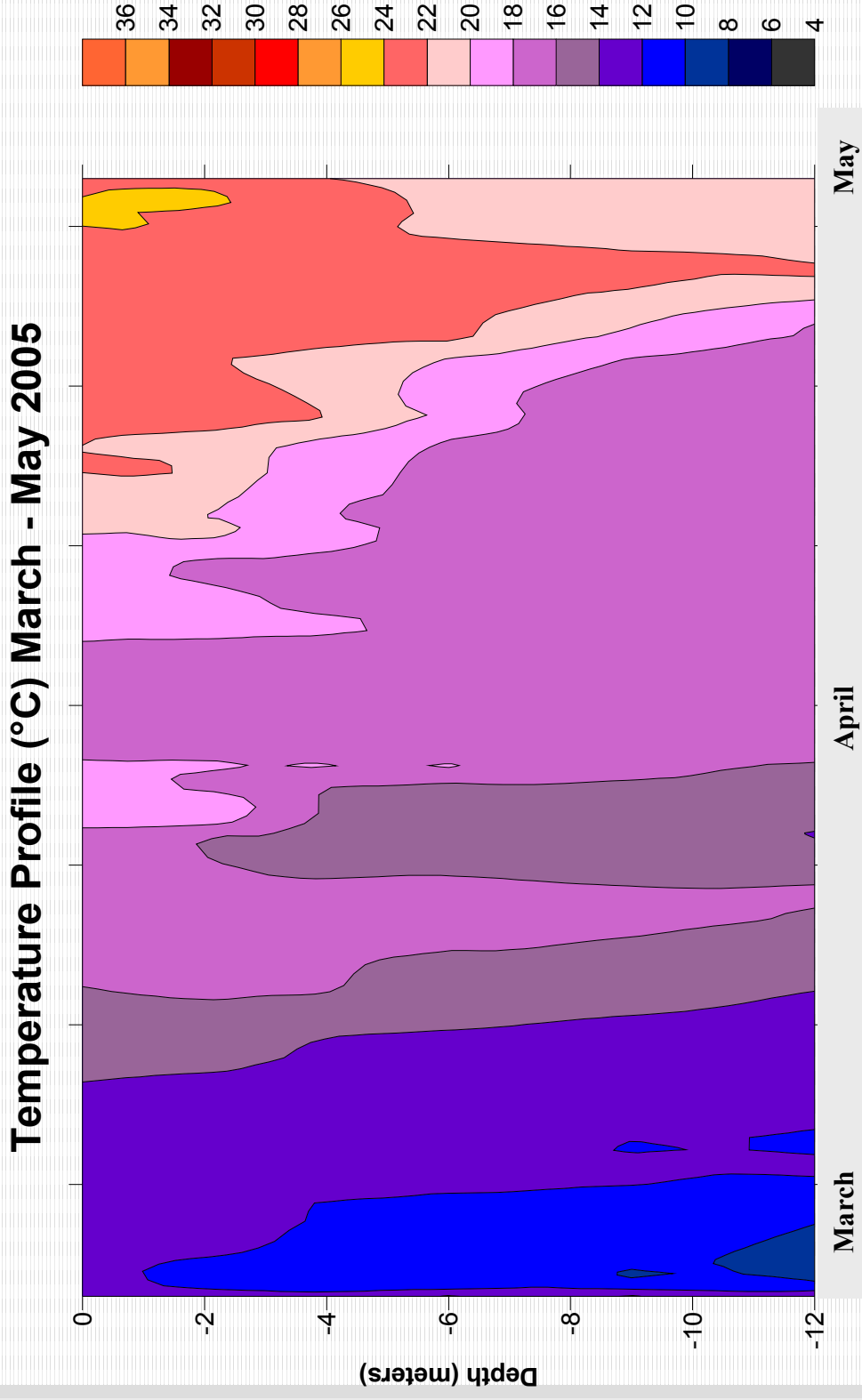


High Rock Lake Temperature Profiles: Station YAD 152C

Temperature Profile (°C) June – September 2006

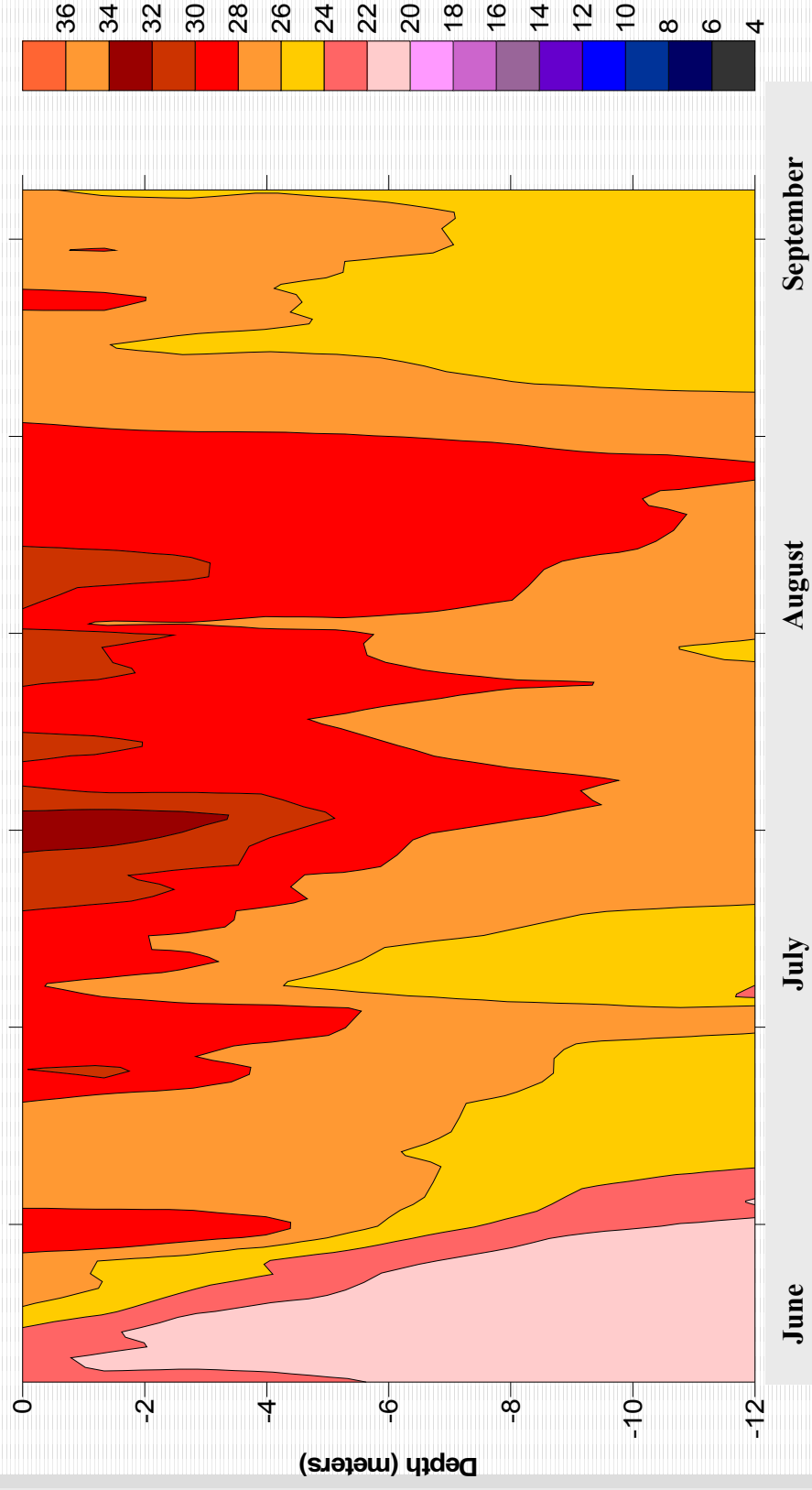


High Rock Lake Temperature Profiles: Station YAD 169F



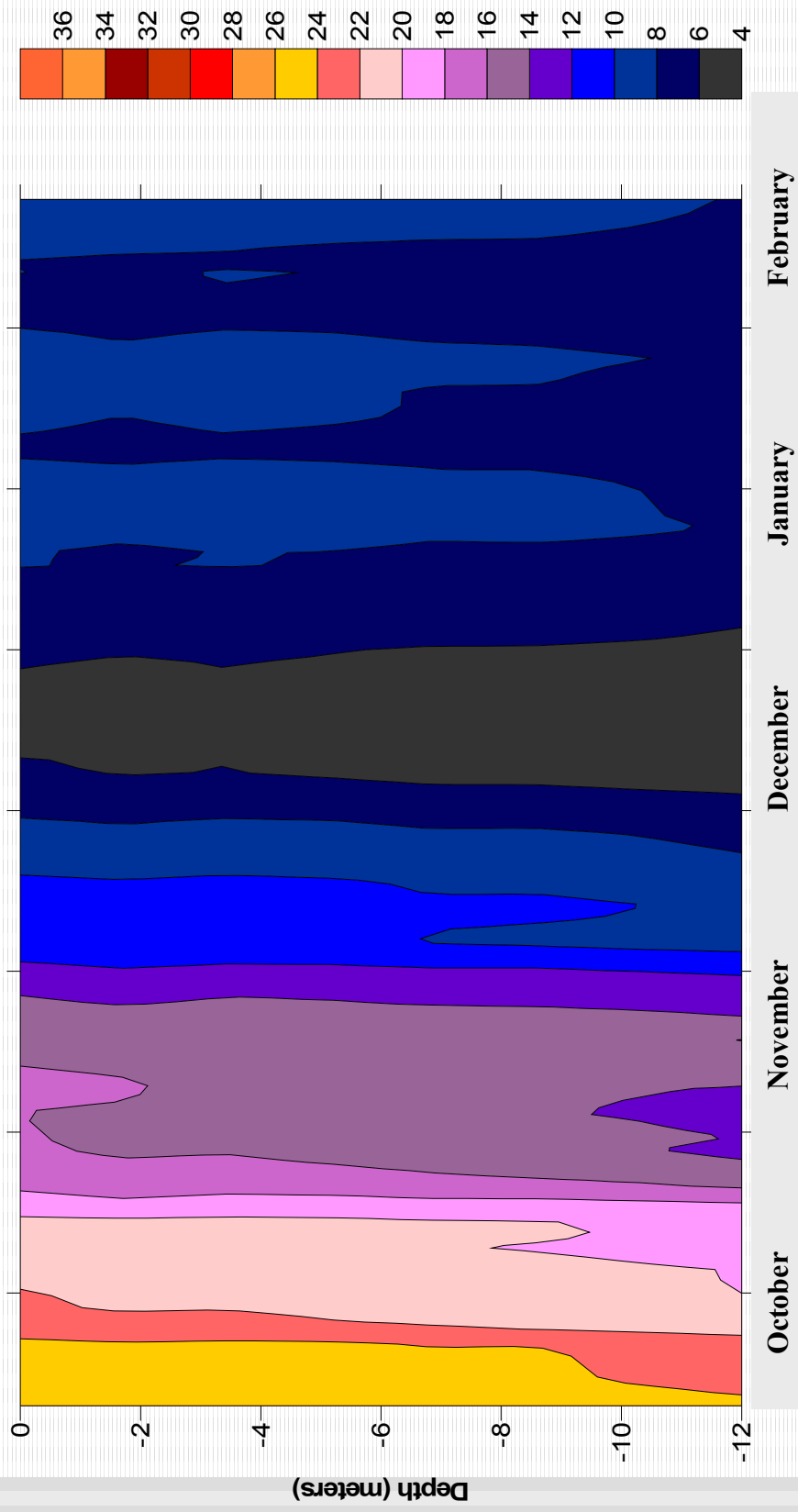
High Rock Lake Temperature Profiles: Station YAD 169F

Temperature Profile (°C) June - September 2005

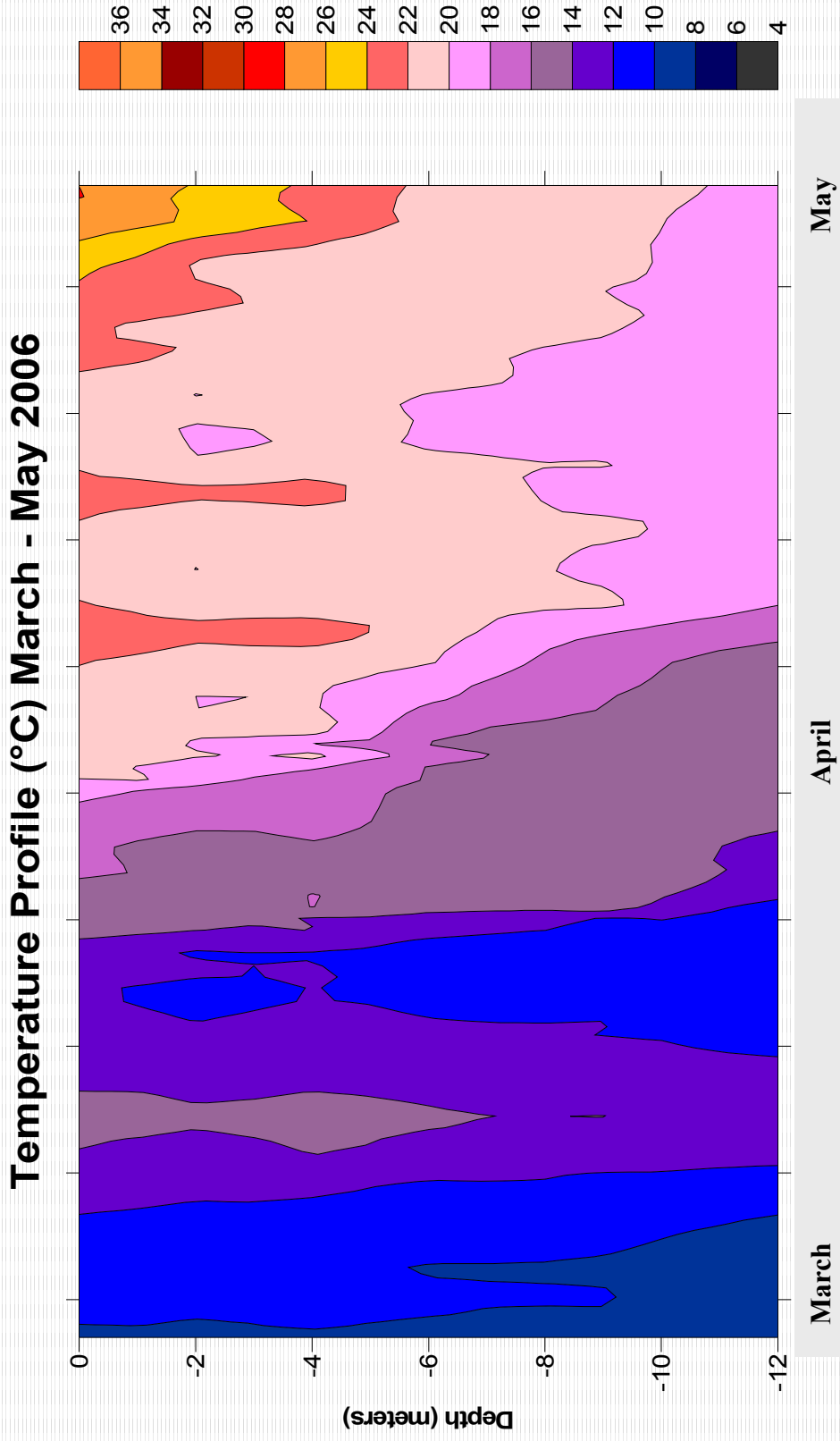


High Rock Lake Temperature Profiles: Station YAD 169F

Temperature Profile (°C) October 2005 - February 2006

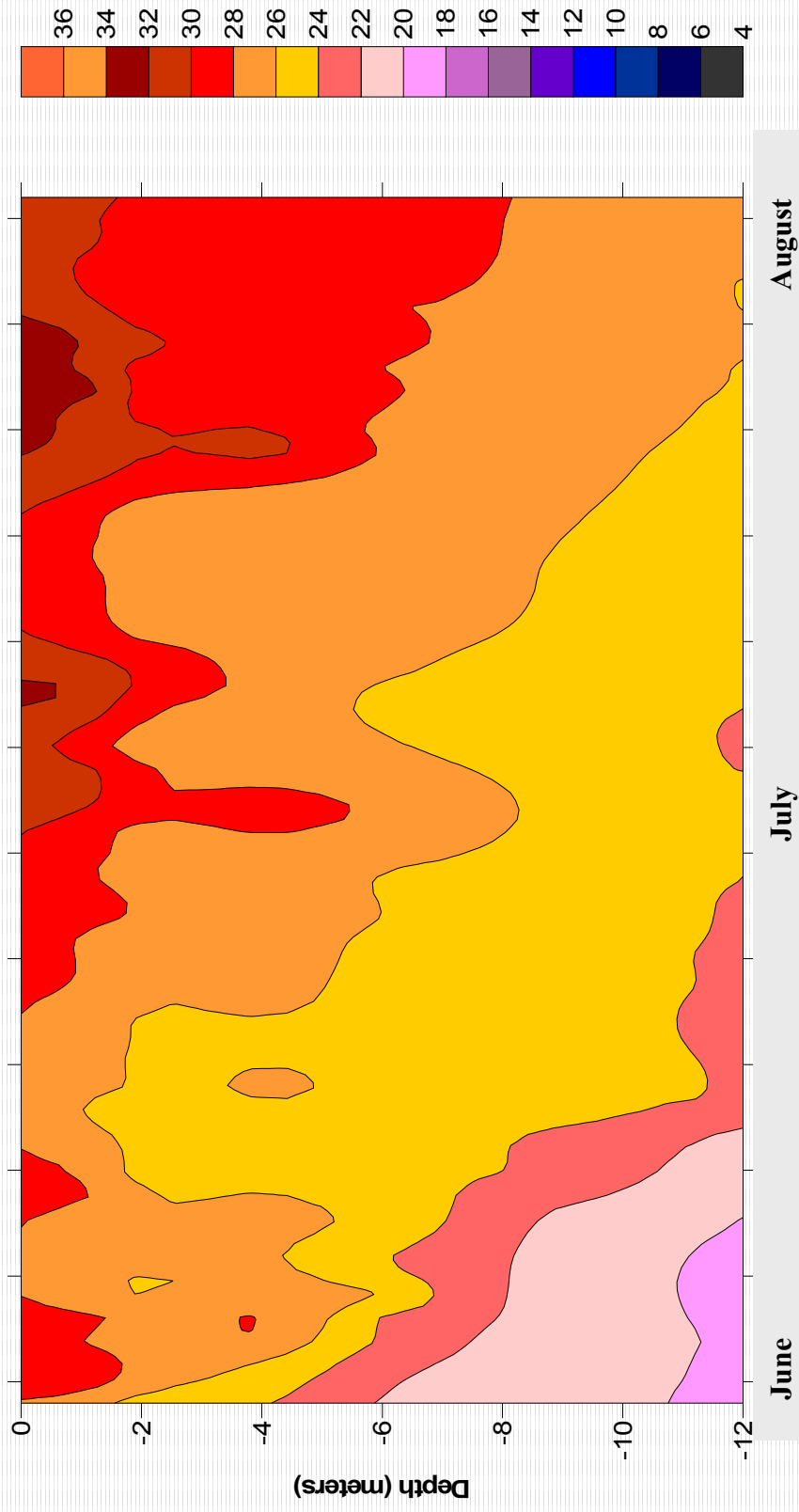


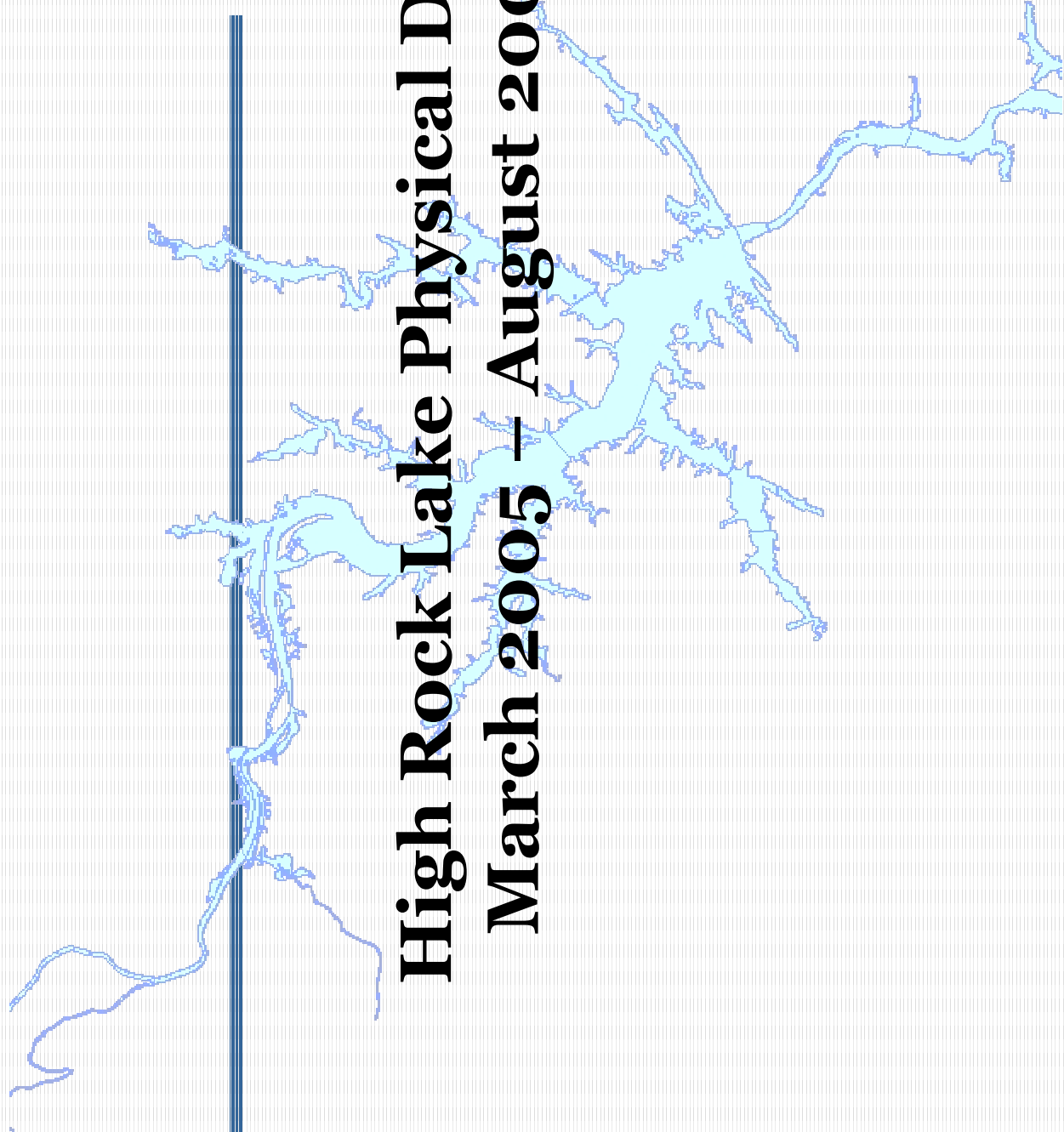
High Rock Lake Temperature Profiles: Station YAD 169F



High Rock Lake Temperature Profiles: Station YAD 169F

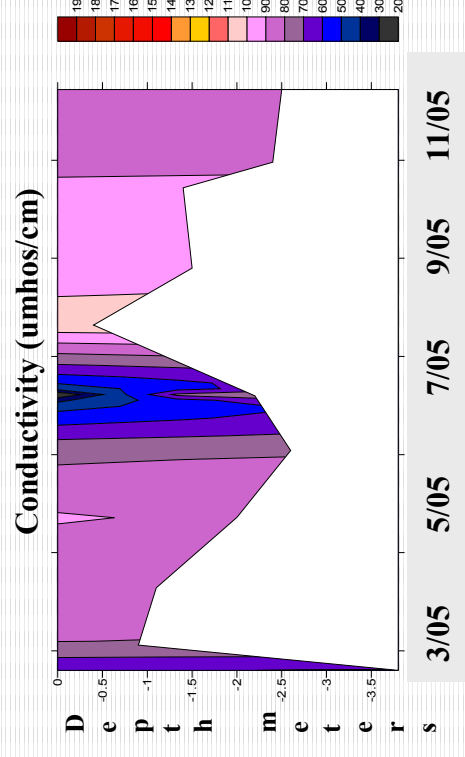
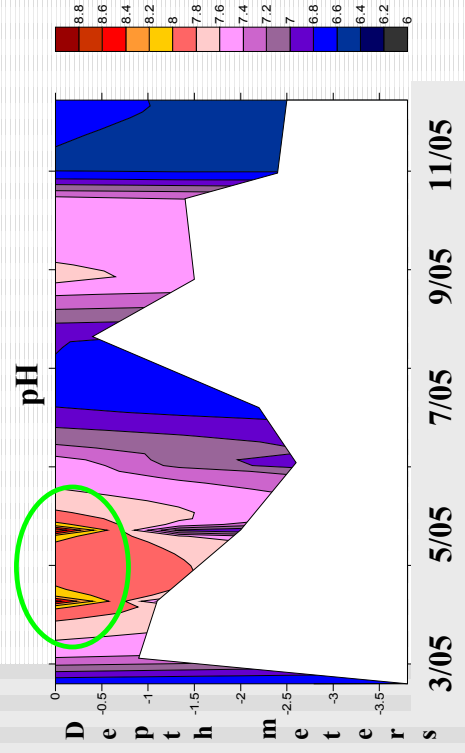
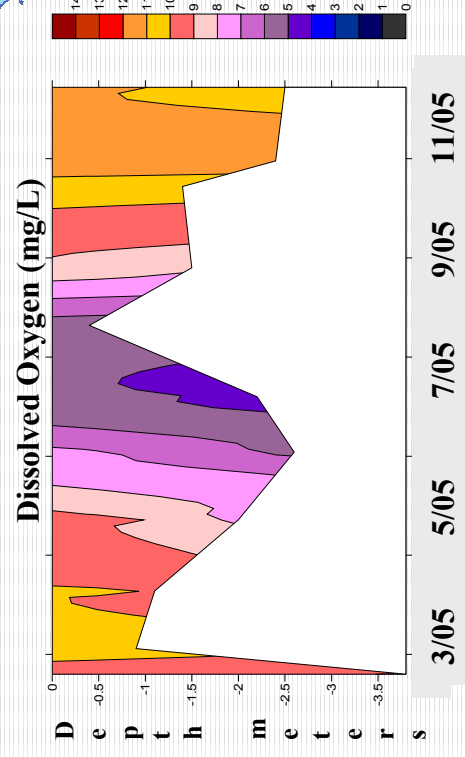
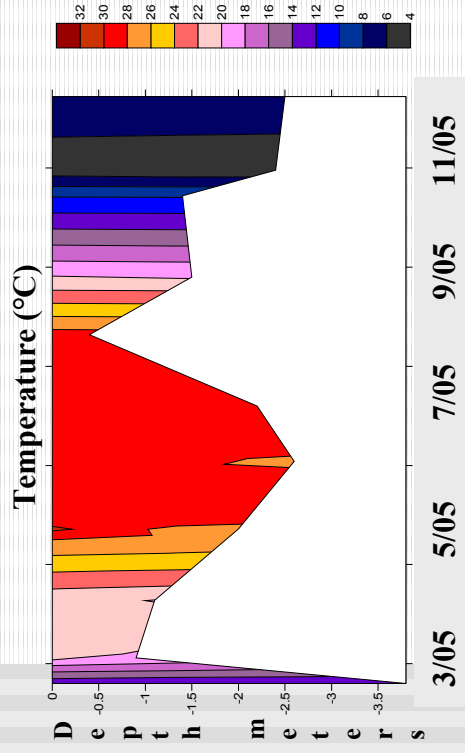
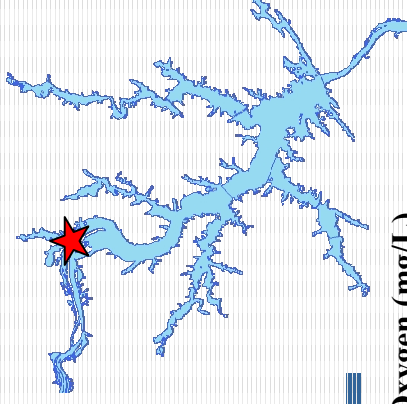
Temperature Profile ($^{\circ}\text{C}$) June - August 2006



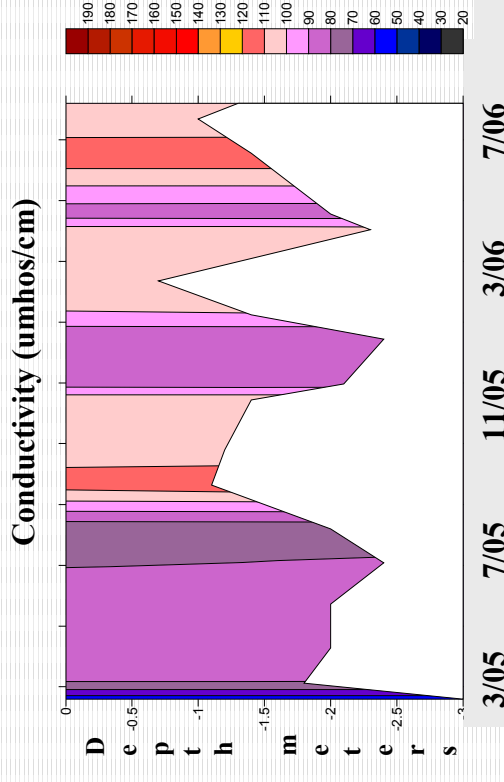
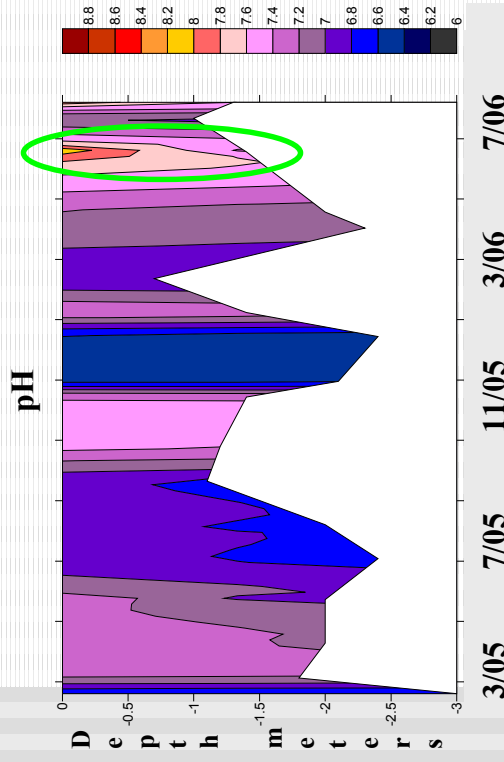
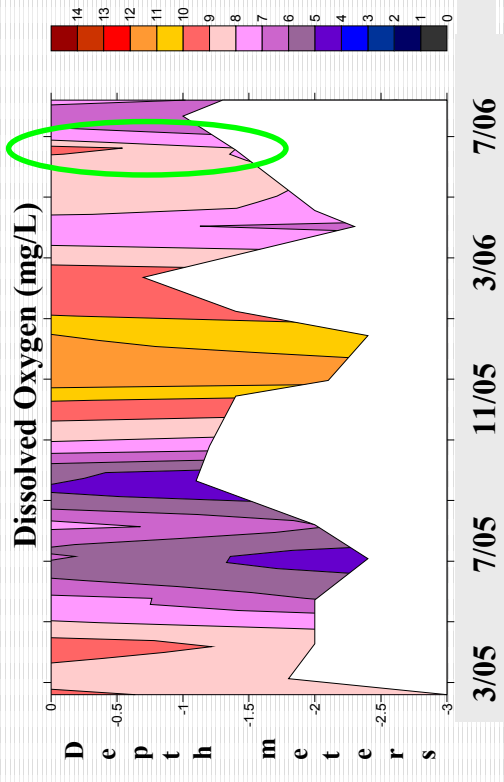
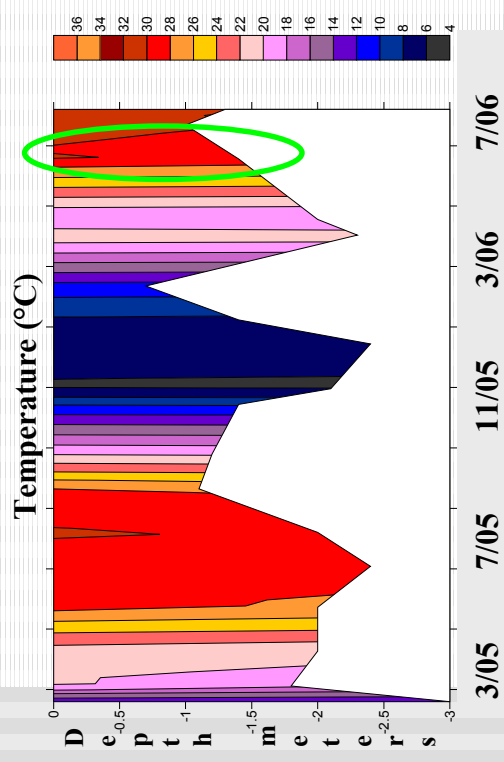
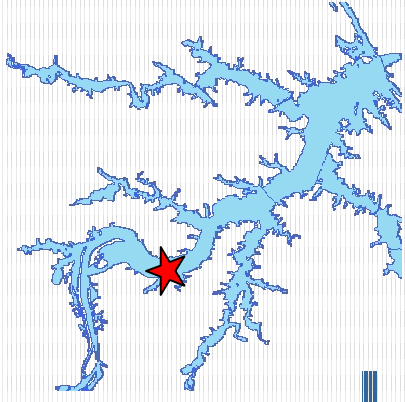


**High Rock Lake Physical Data
March 2005 – August 2006**

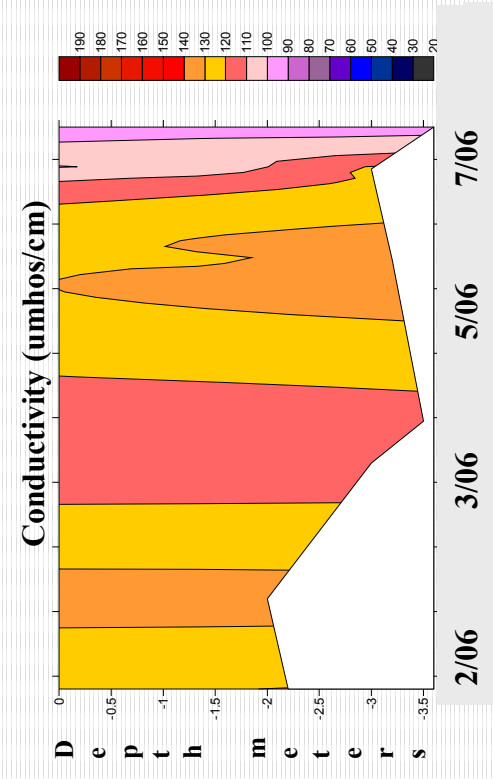
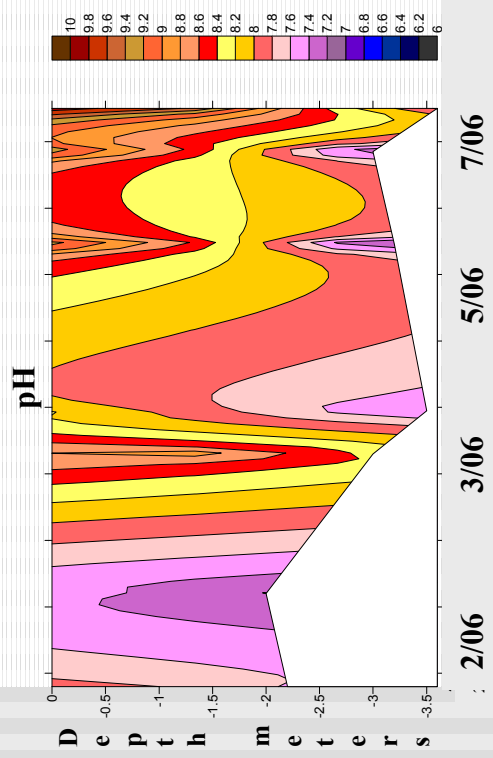
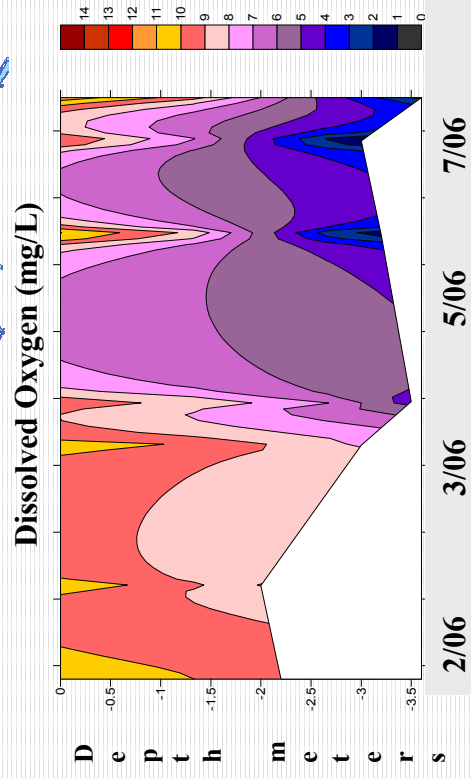
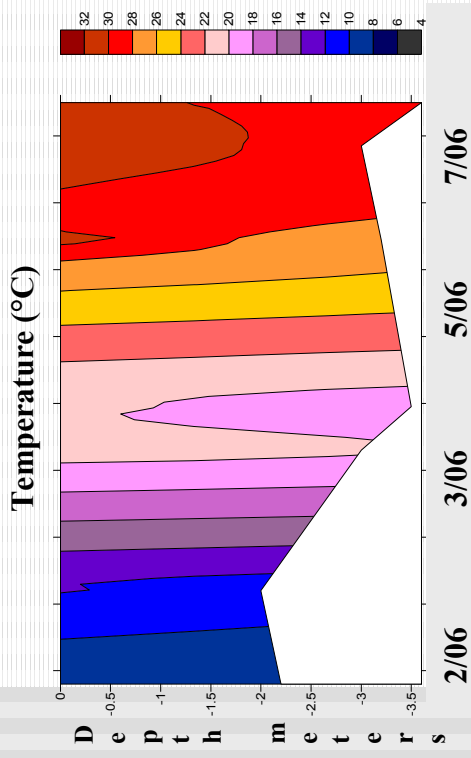
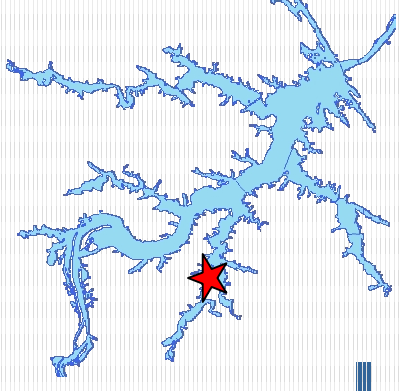
Physical Profiles: Station YAD1391A



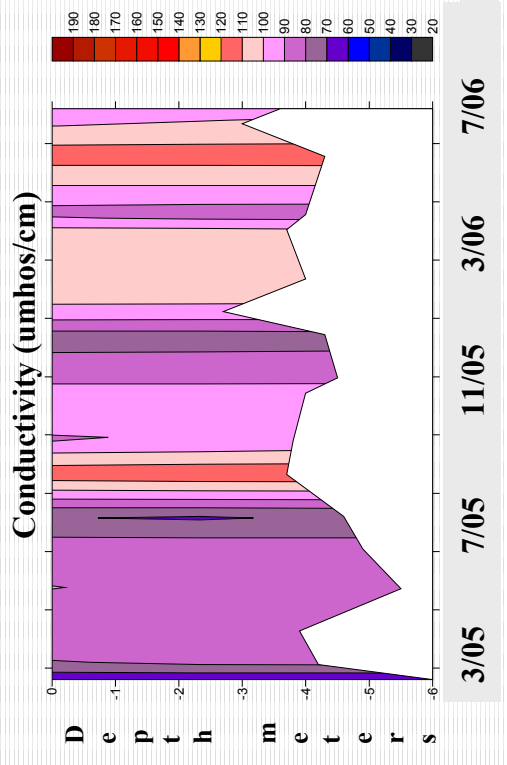
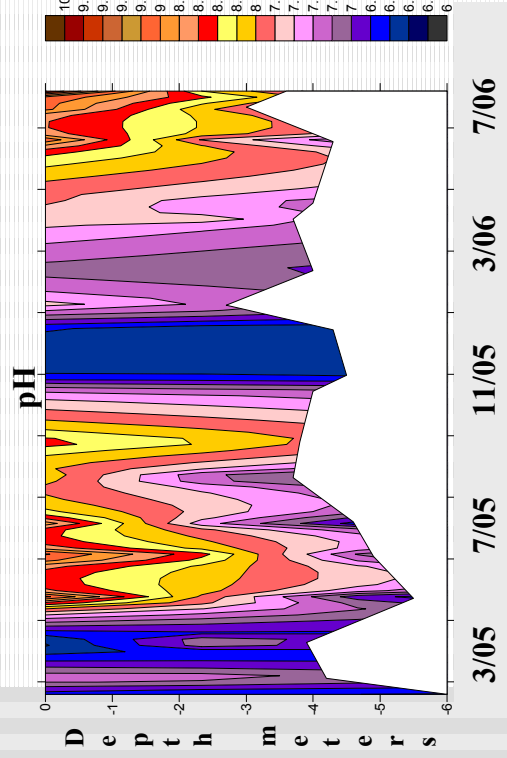
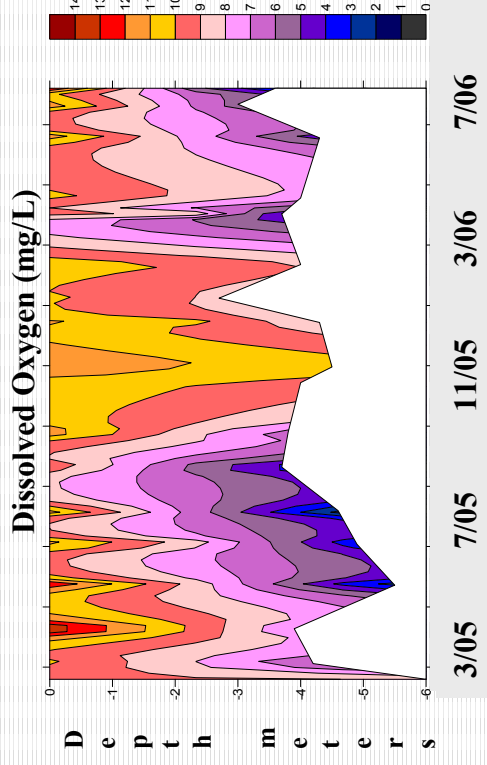
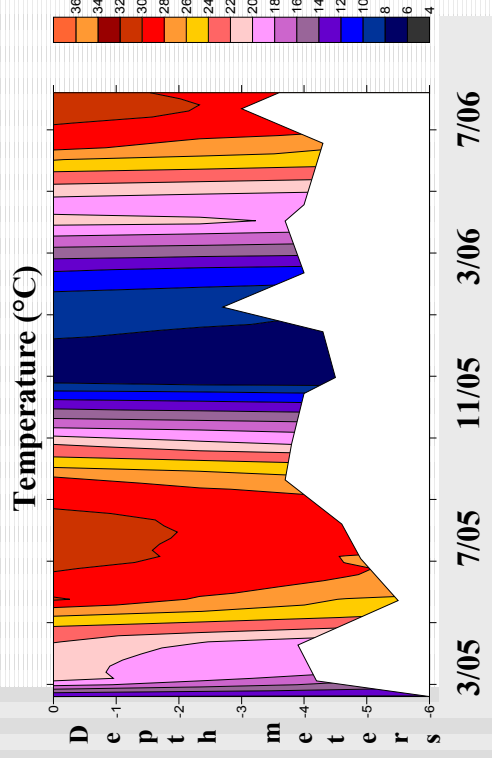
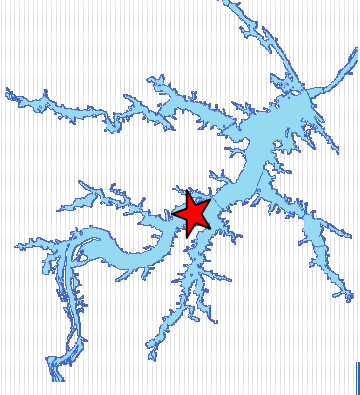
Physical Profiles: Station HRL051



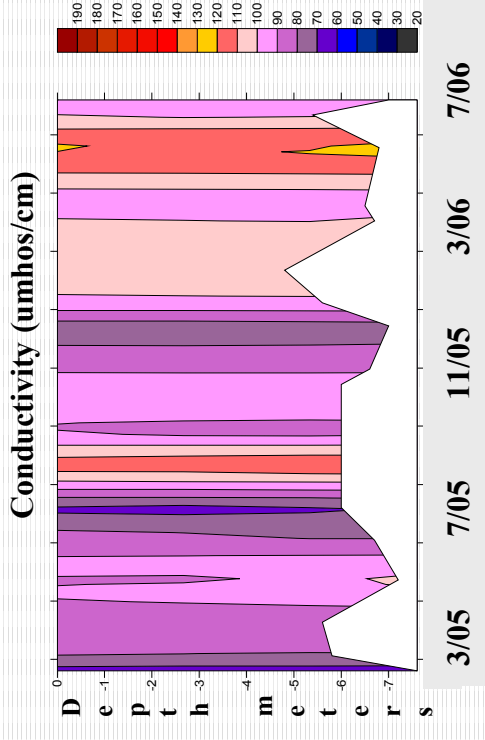
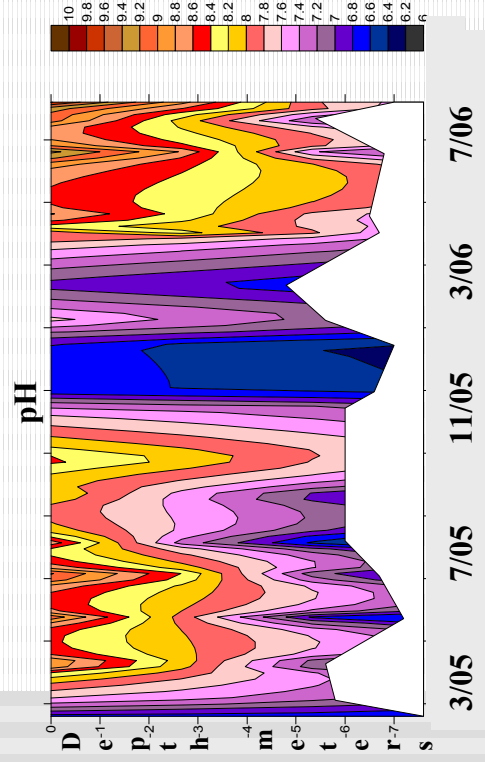
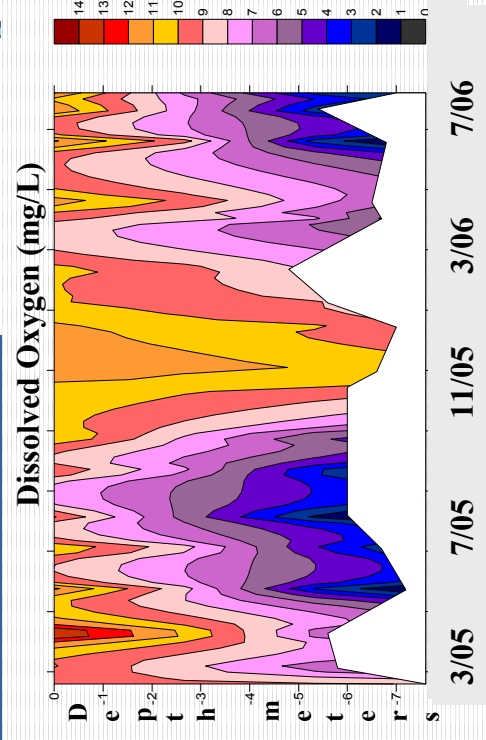
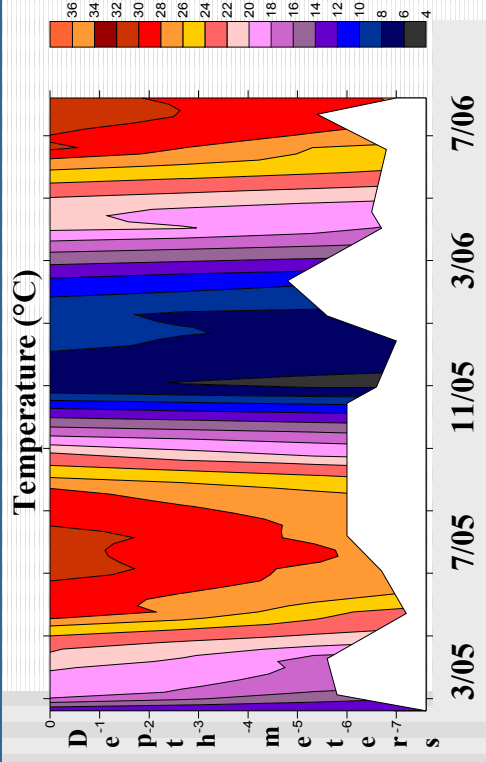
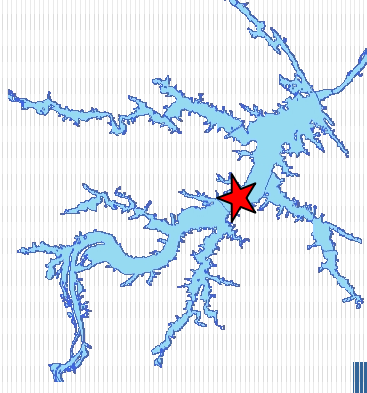
Physical Profiles: Station YAD152



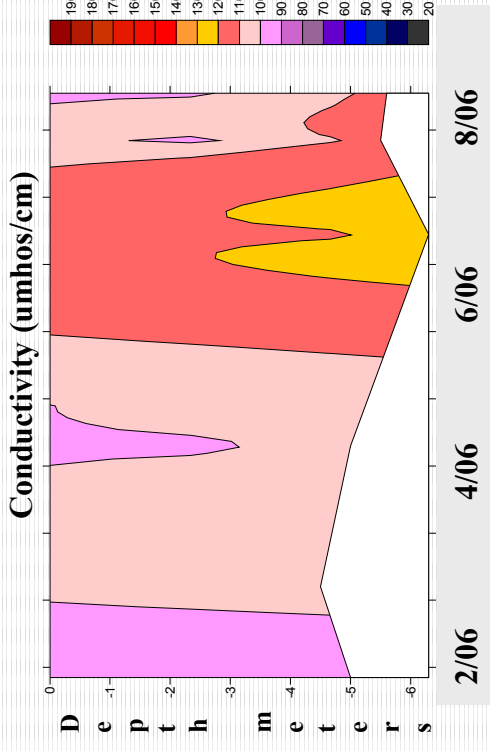
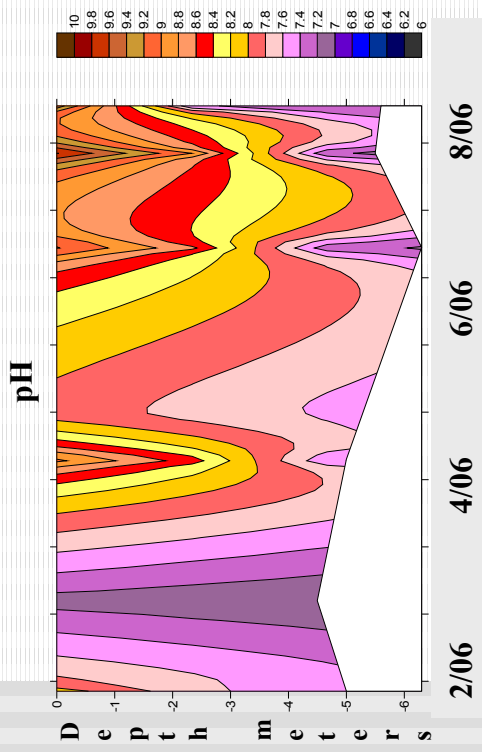
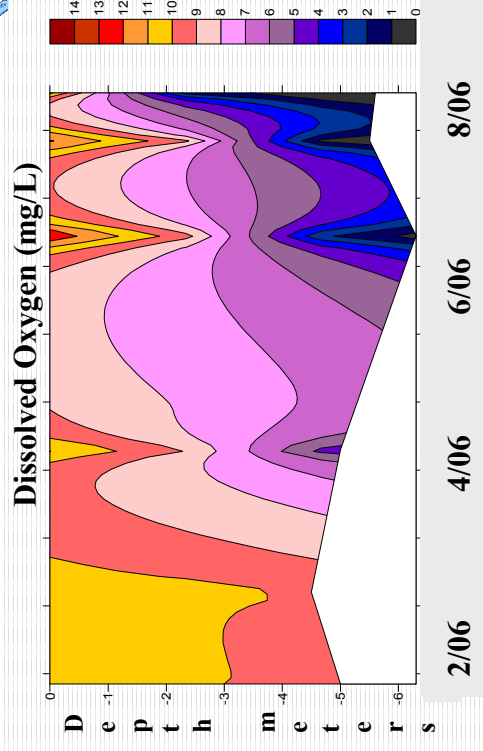
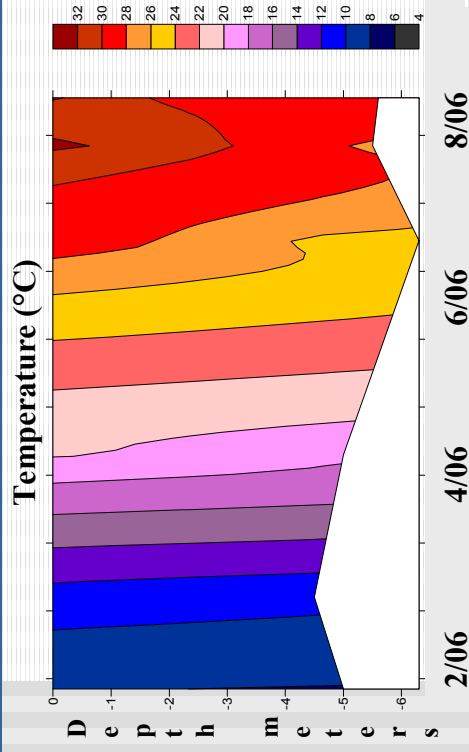
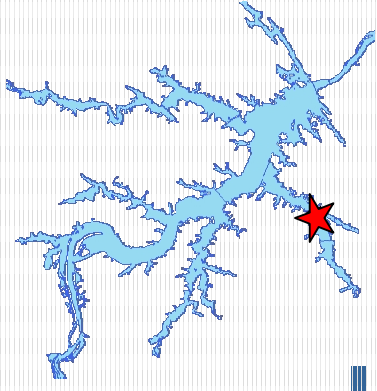
Physical Profiles: Station YAD152A



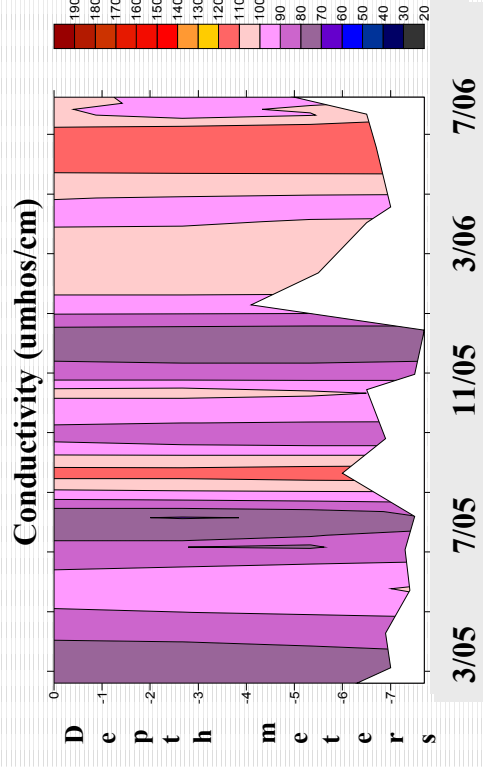
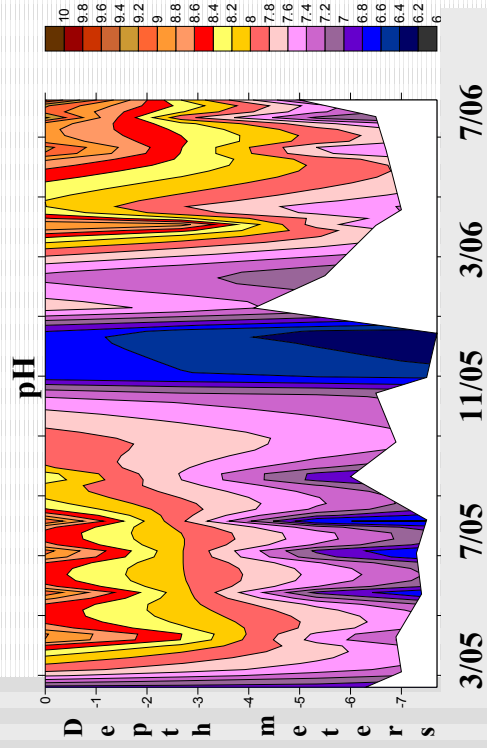
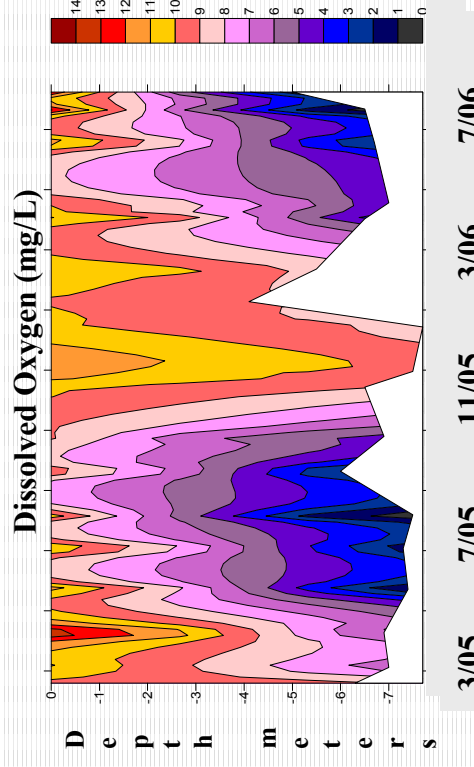
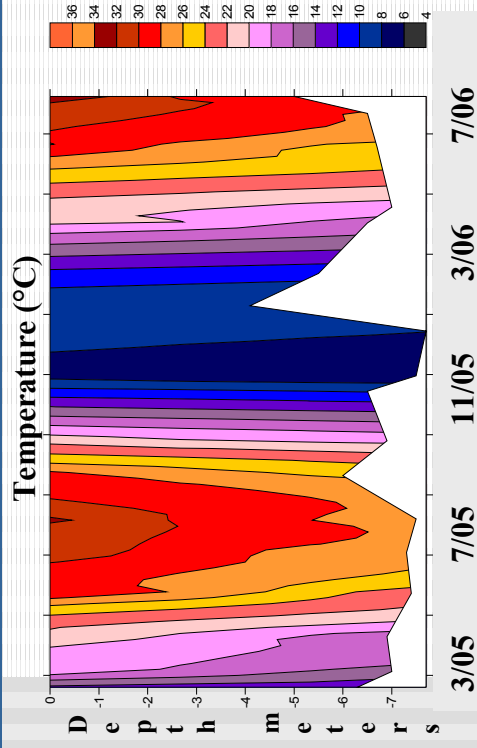
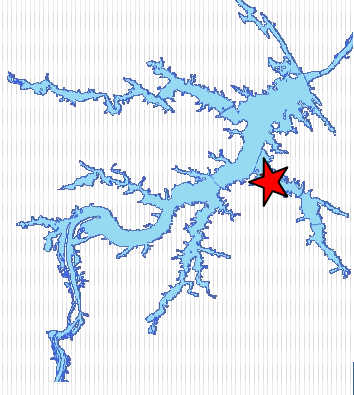
Physical Profiles: Station YAD152C



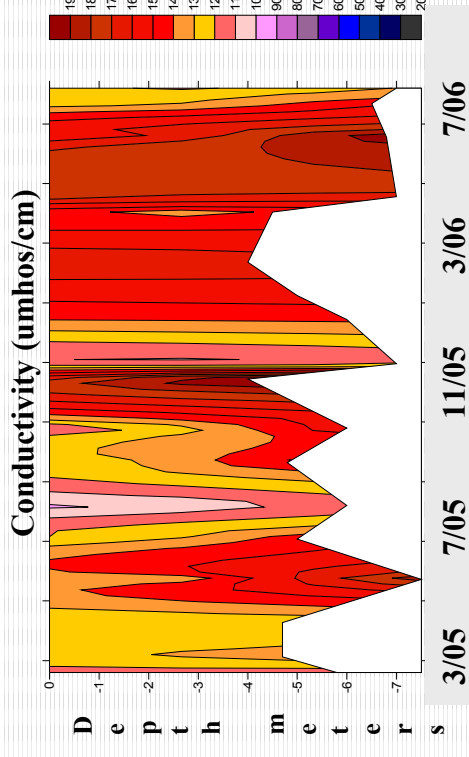
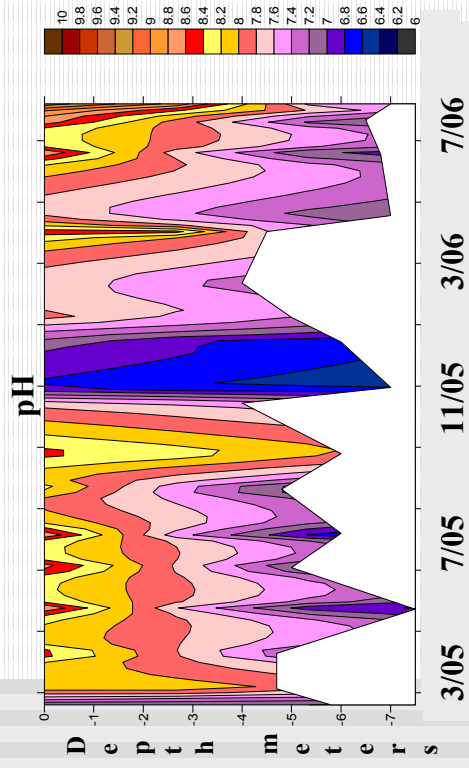
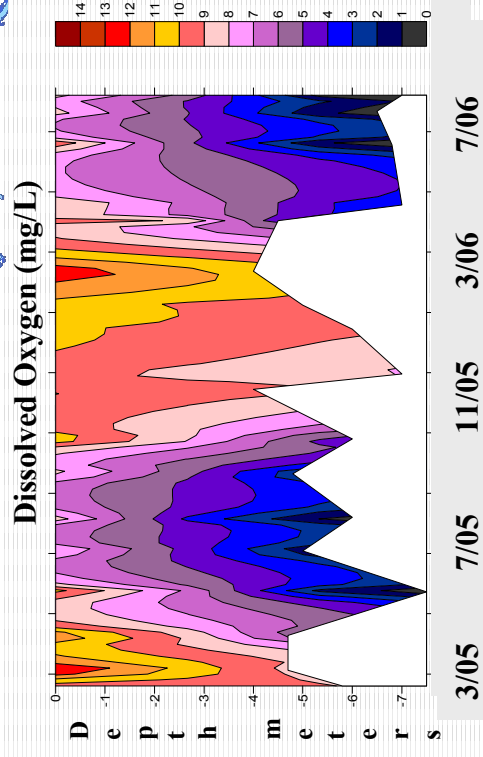
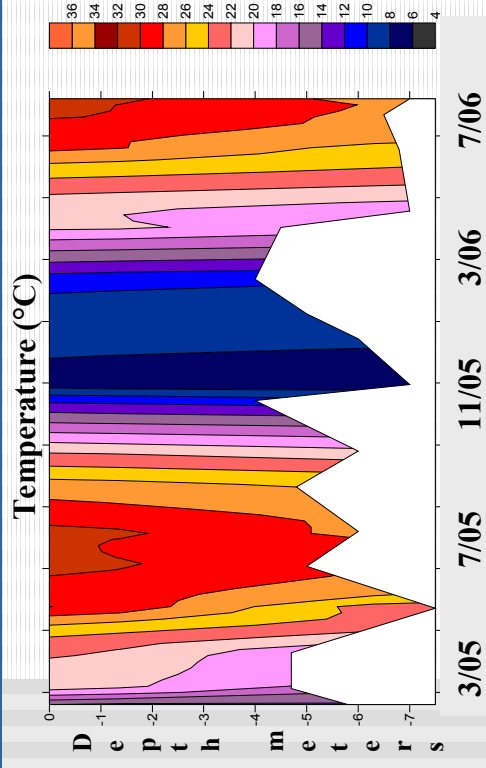
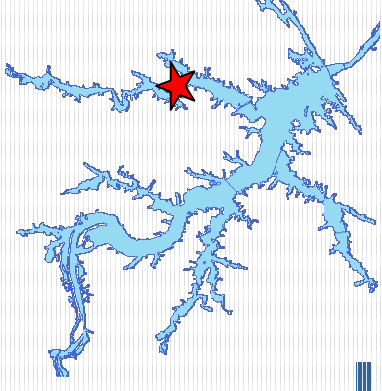
Physical Profiles: Station YAD1561A



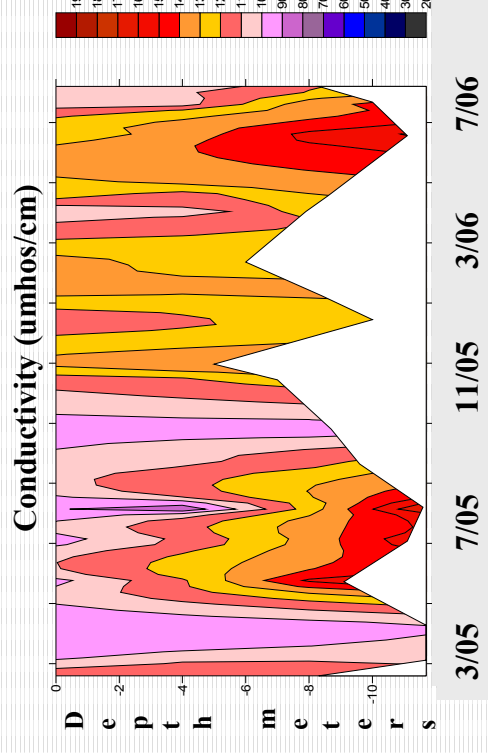
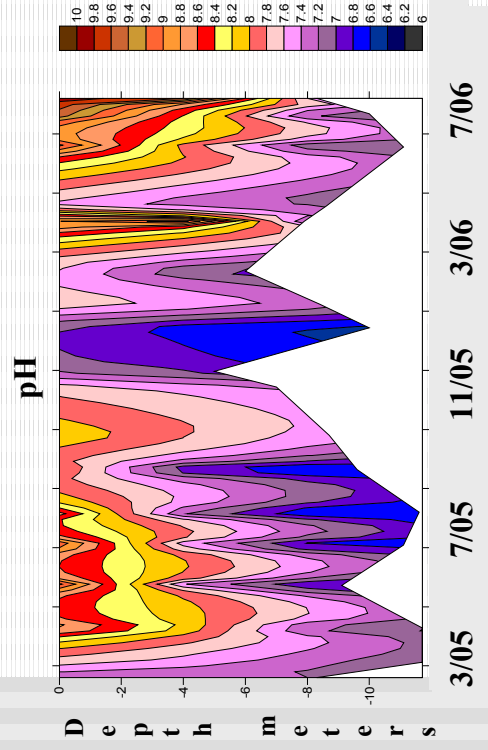
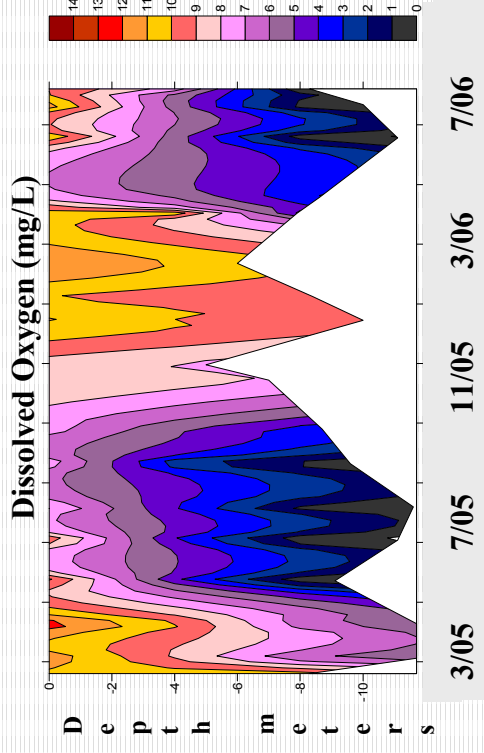
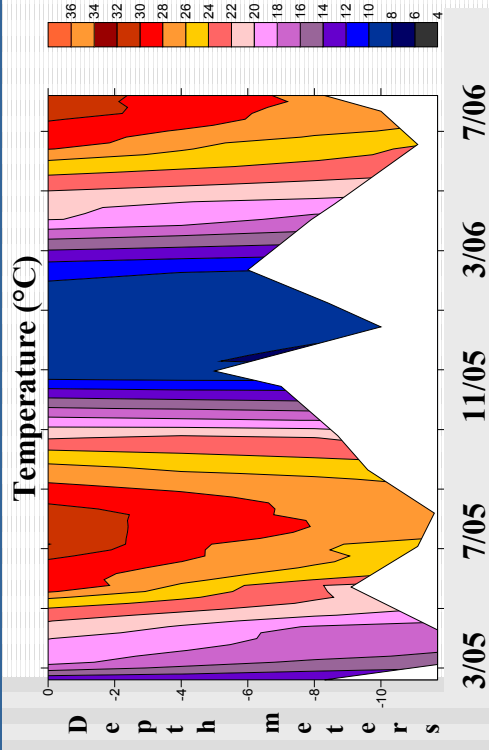
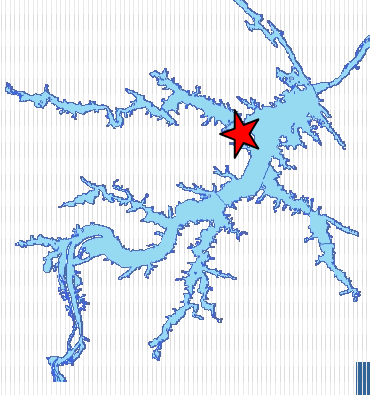
Physical Profiles: Station YAD156A



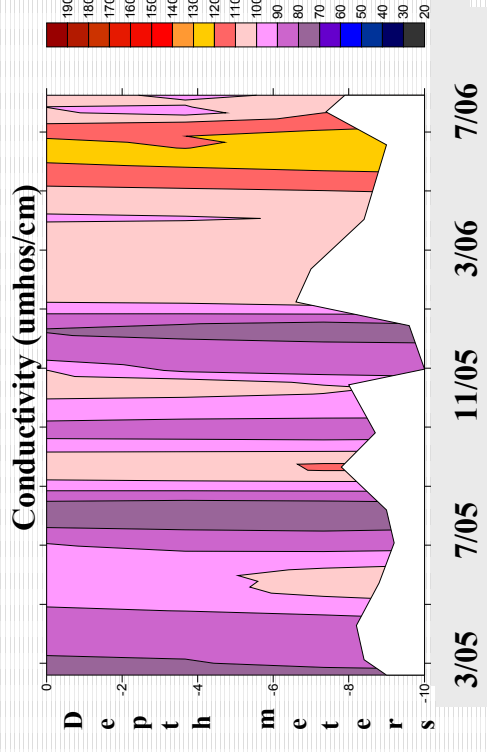
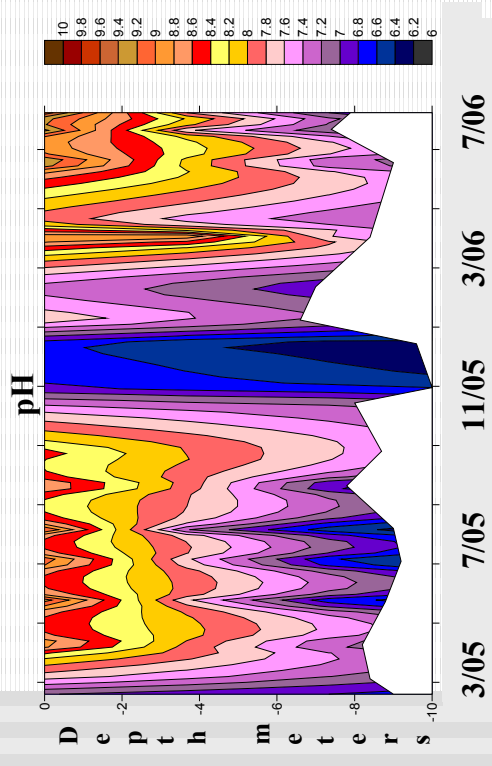
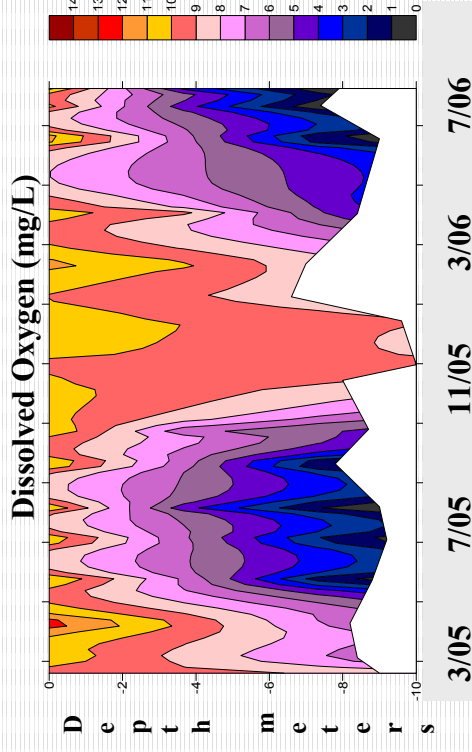
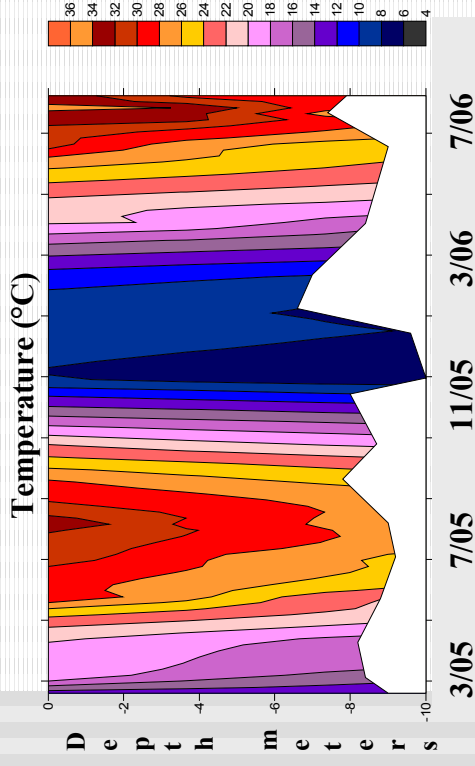
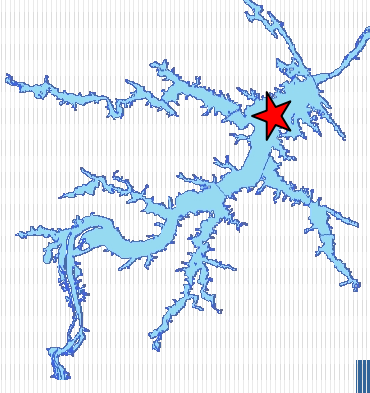
Physical Profiles: Station HRL052



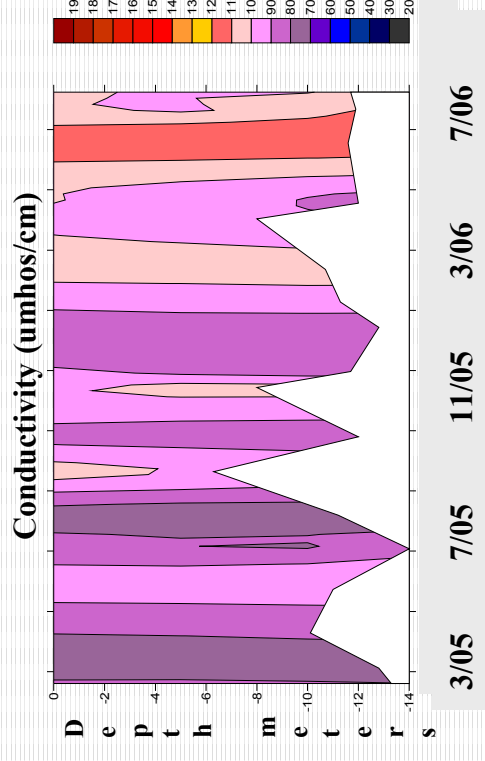
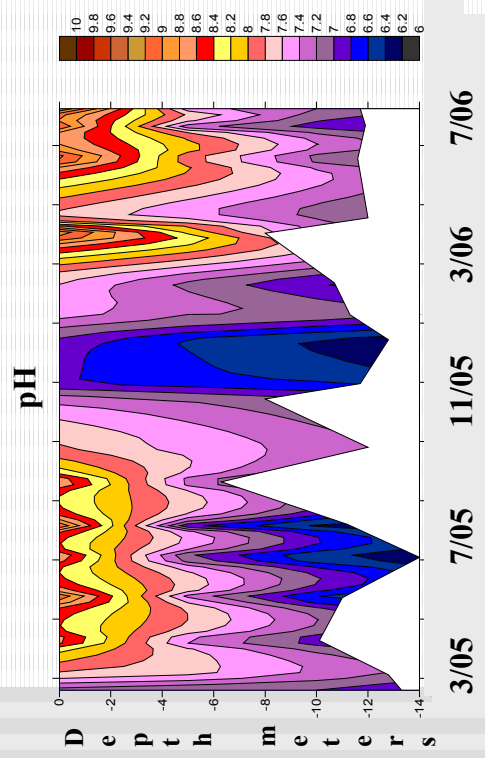
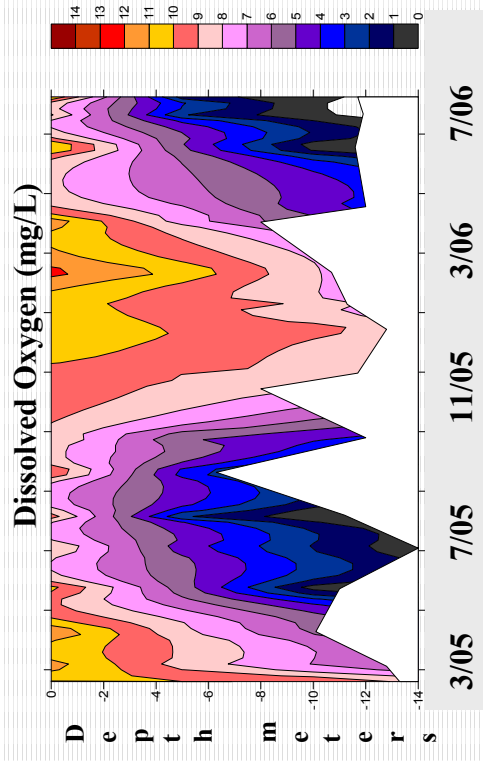
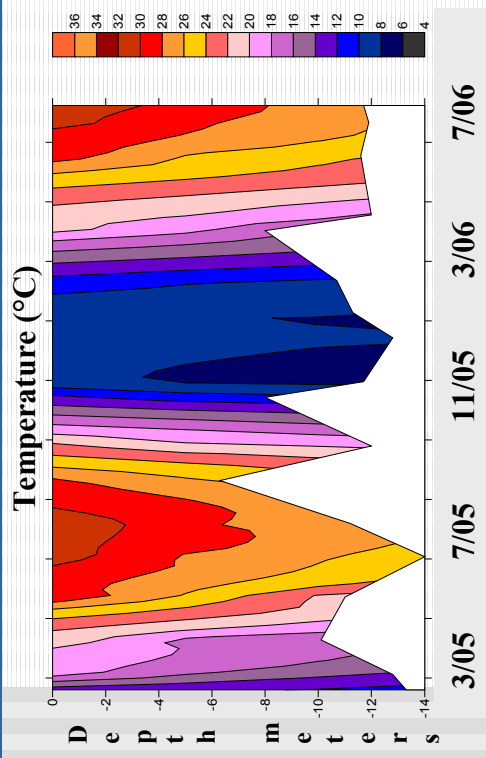
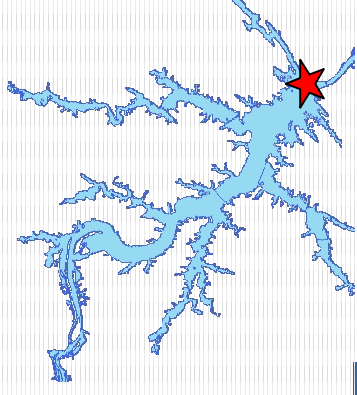
Physical Profiles: Station YAD169A



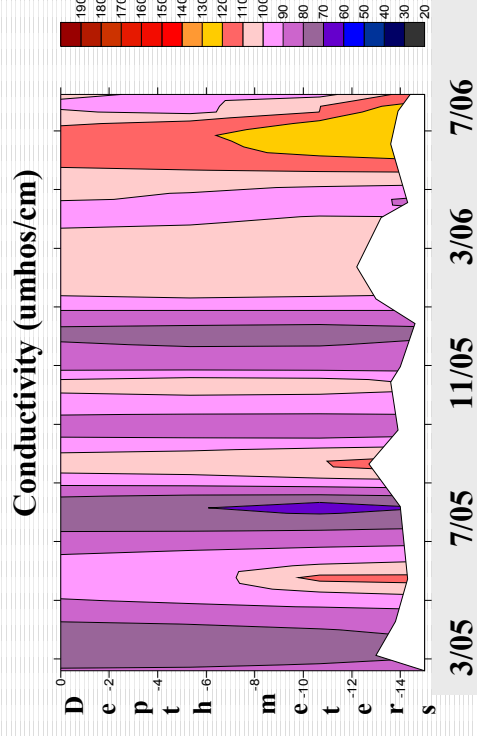
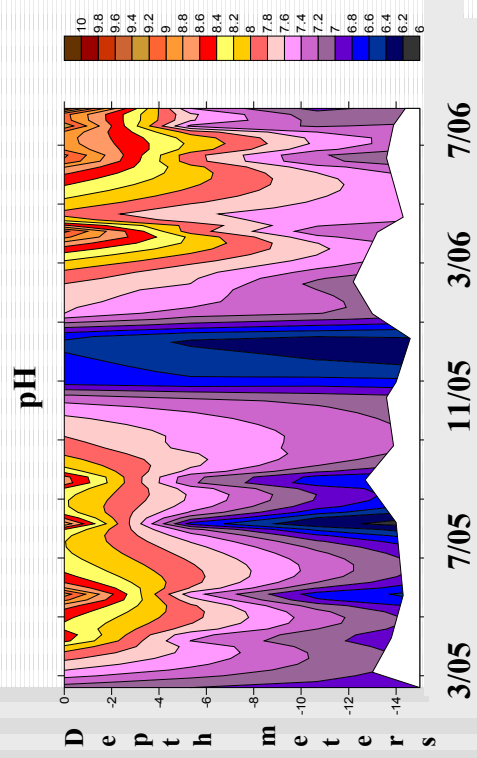
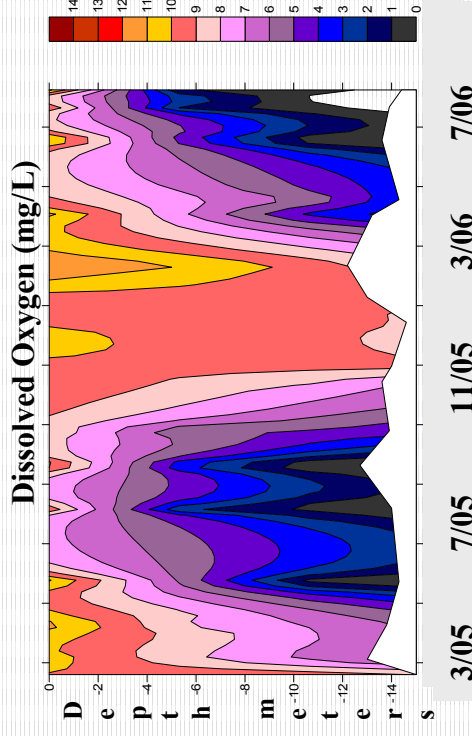
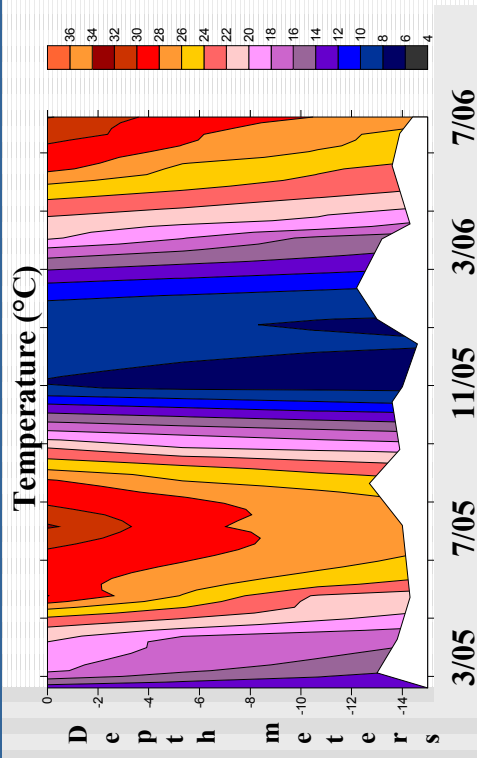
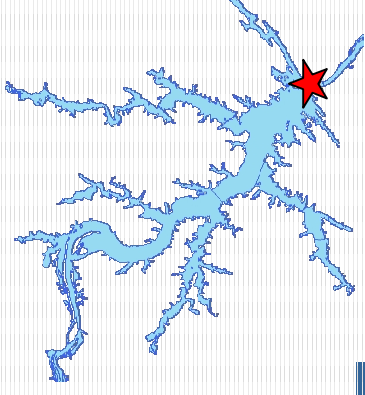
Physical Profiles: Station YAD169B



Physical Profiles: Station YAD169E

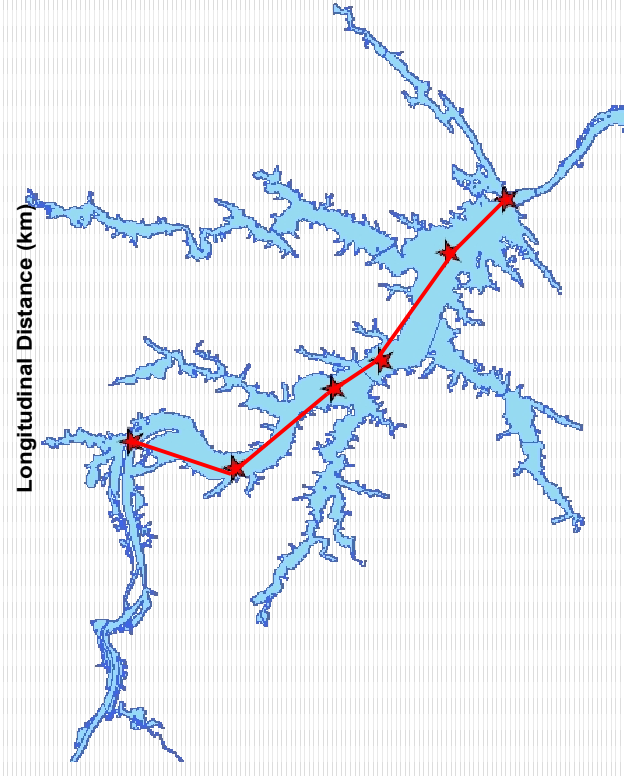
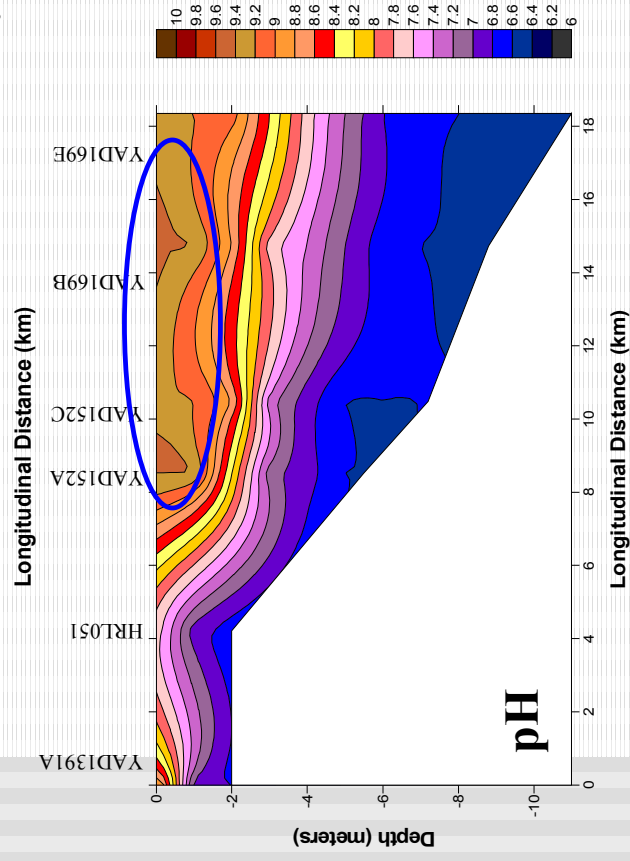
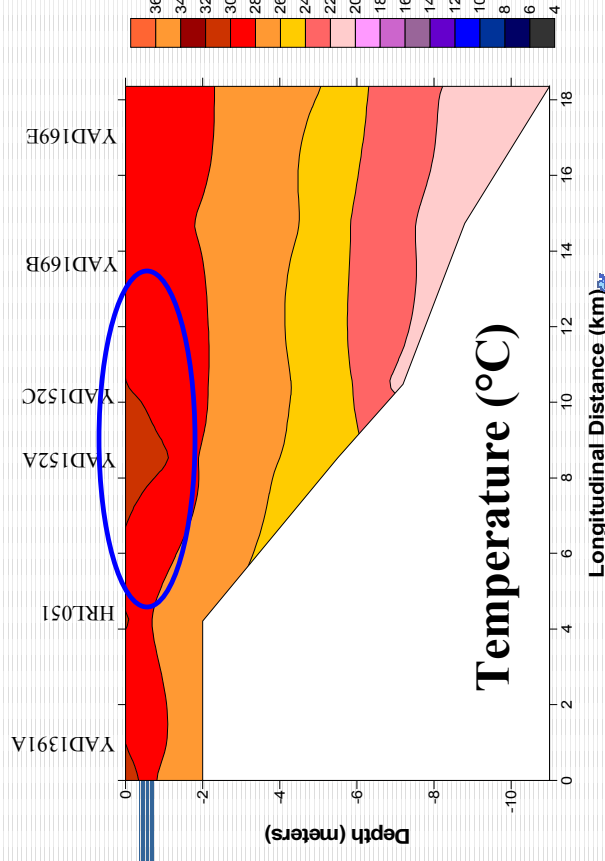
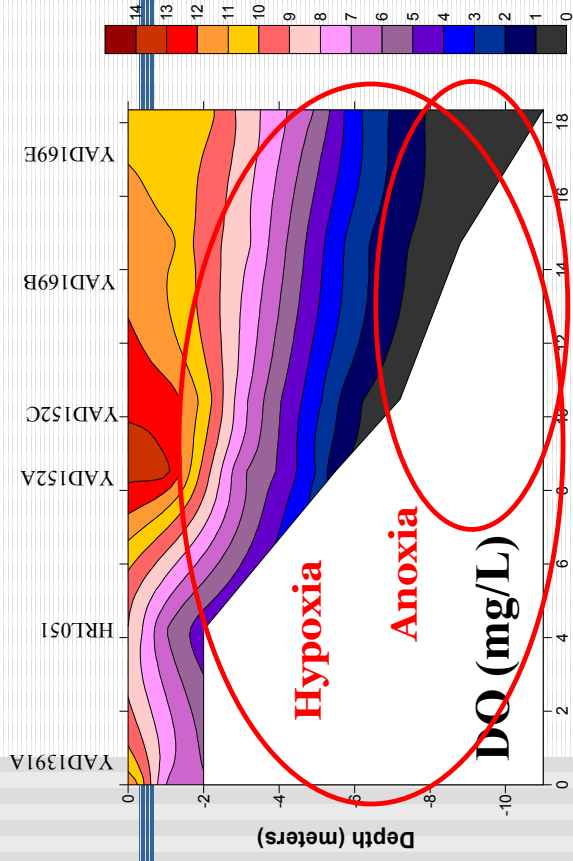


Physical Profiles: Station YAD169F



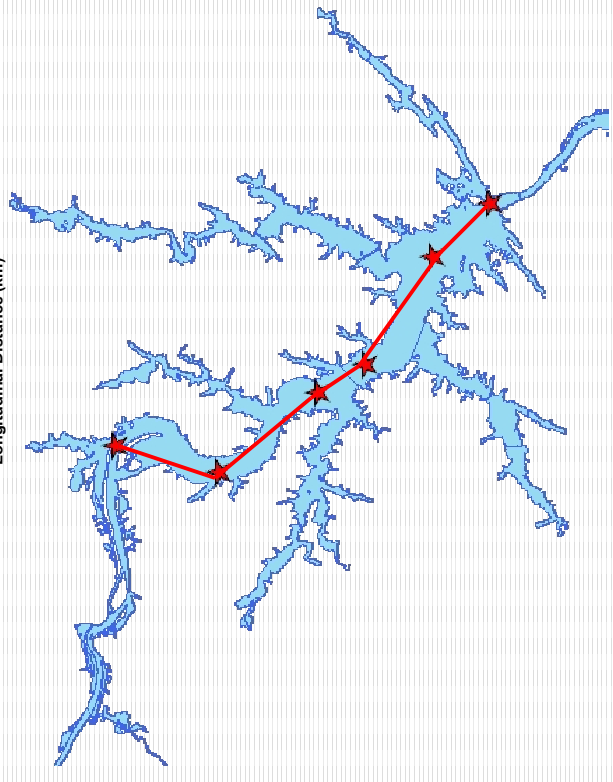
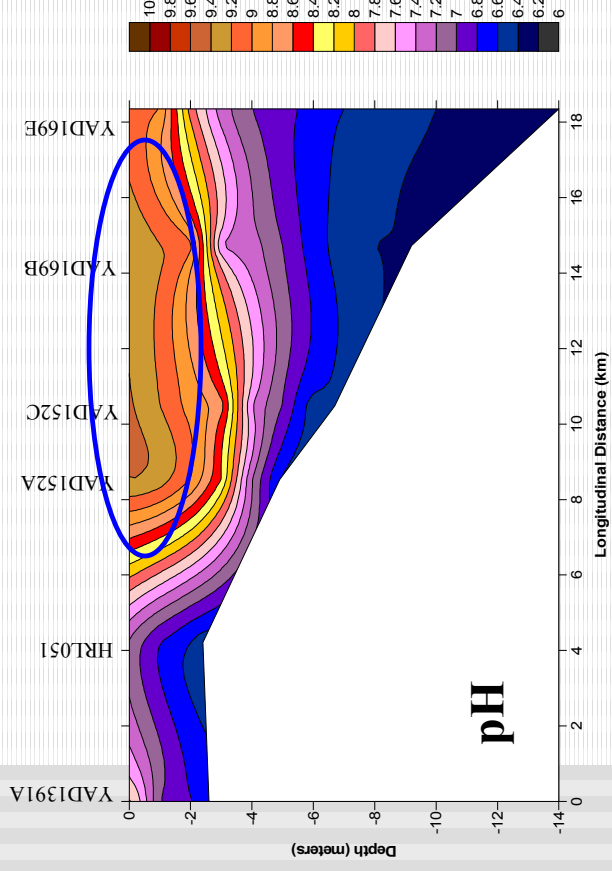
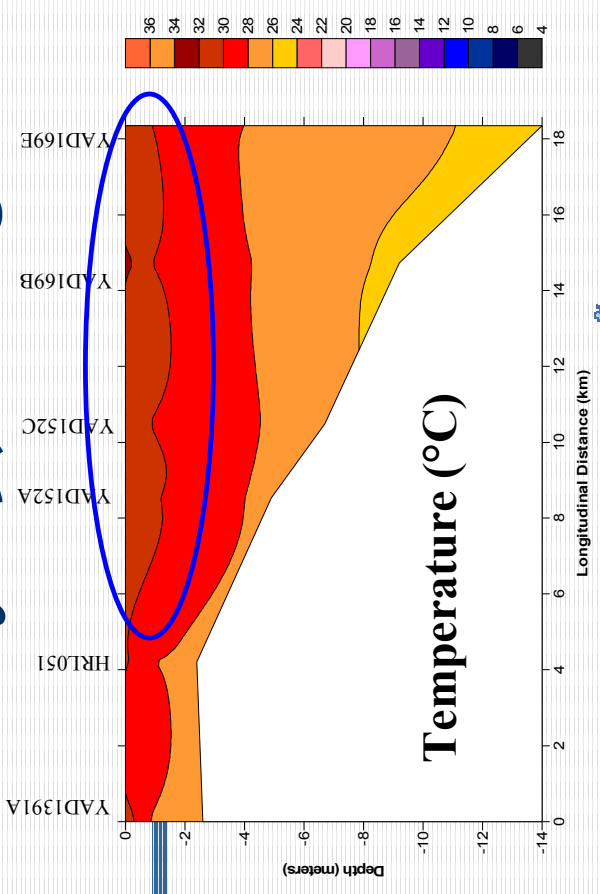
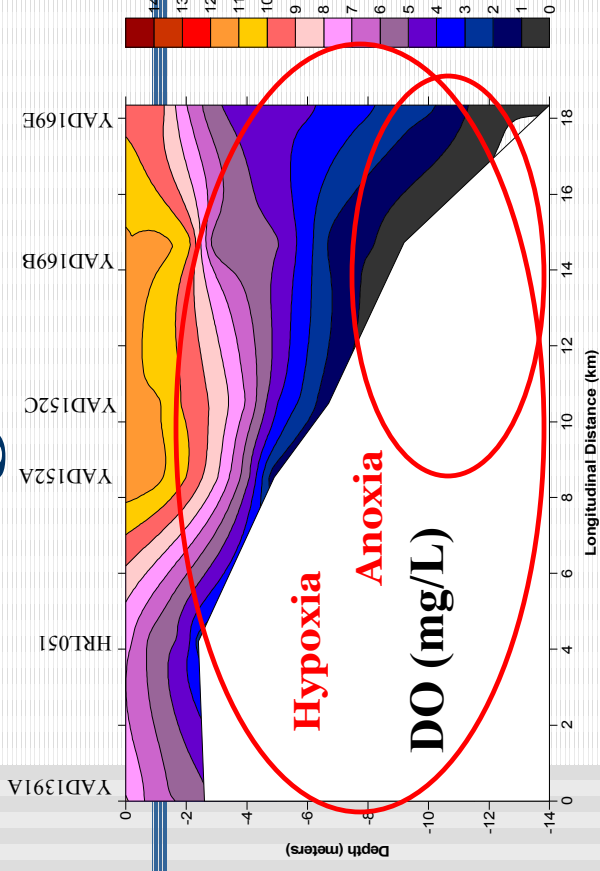
High Rock Lake

Longitudinal Plots: June 15, 2005



High Rock Lake

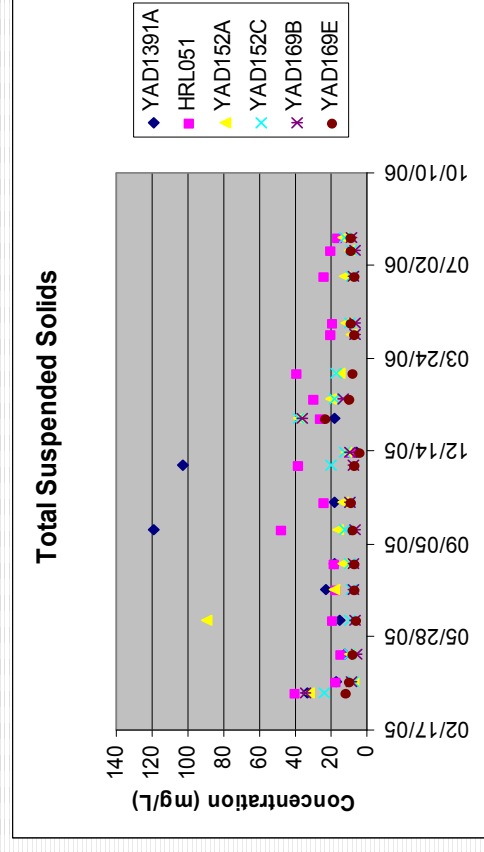
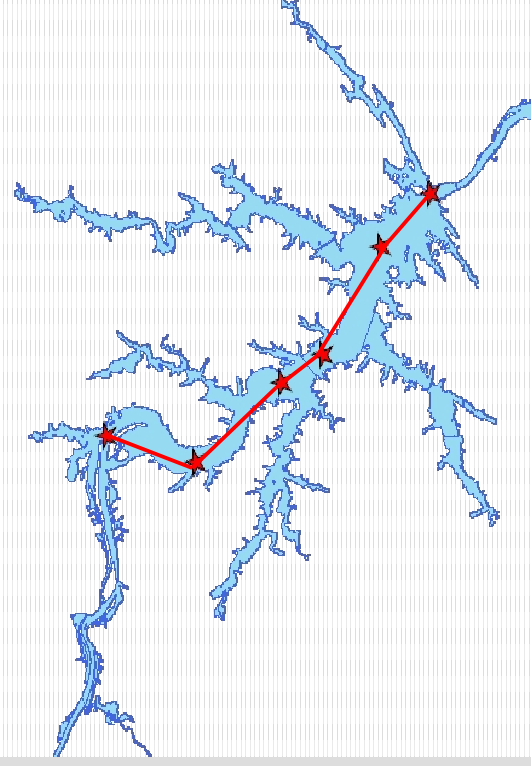
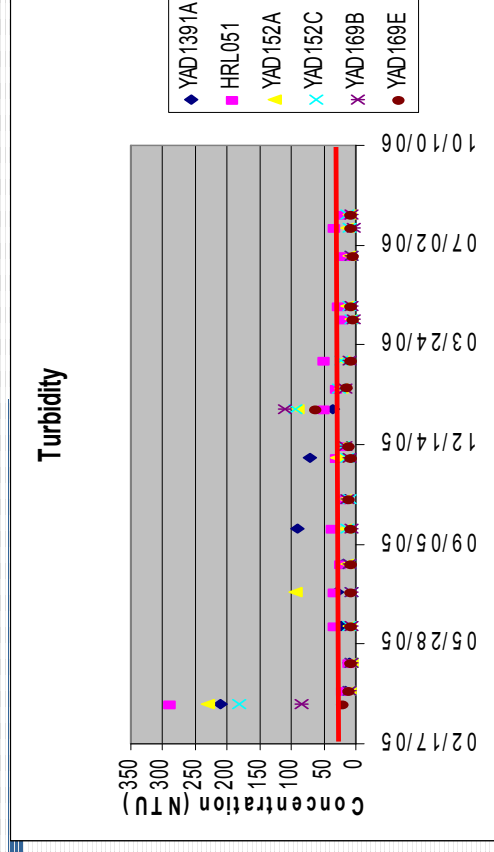
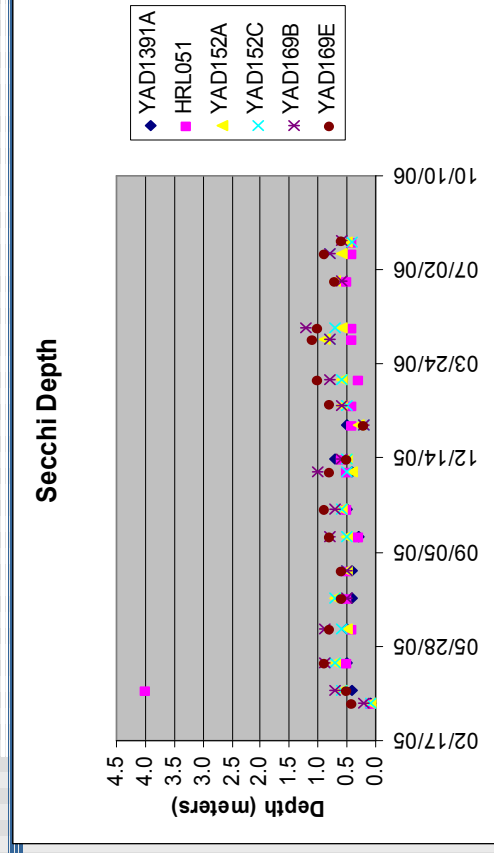
Longitudinal Plots: July 19, 2005



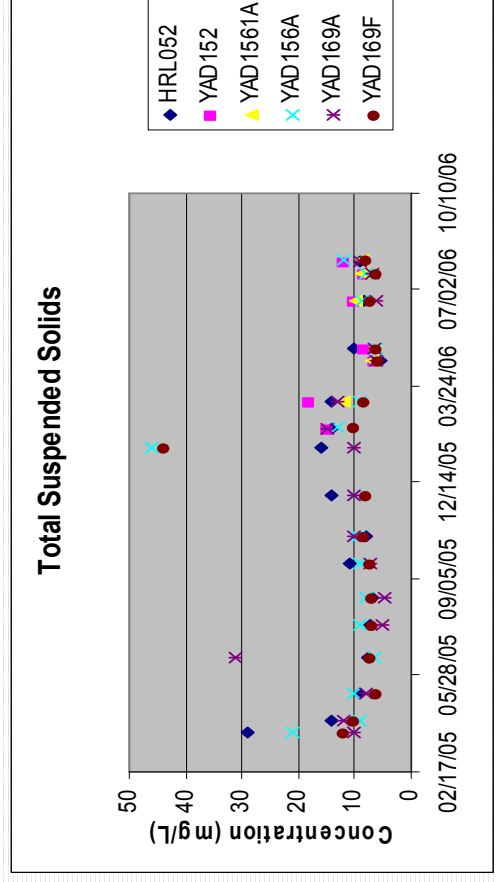
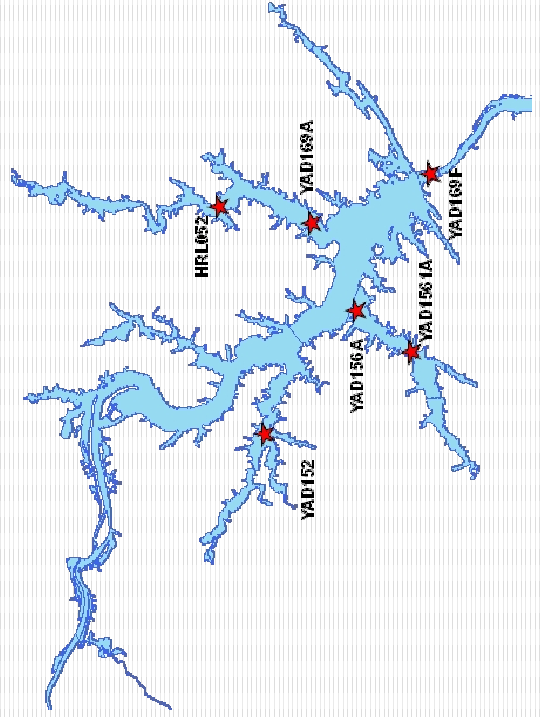
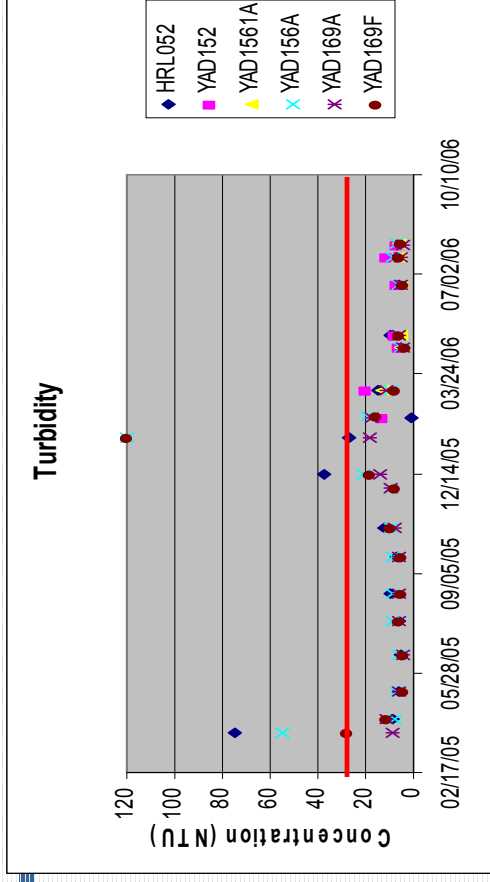
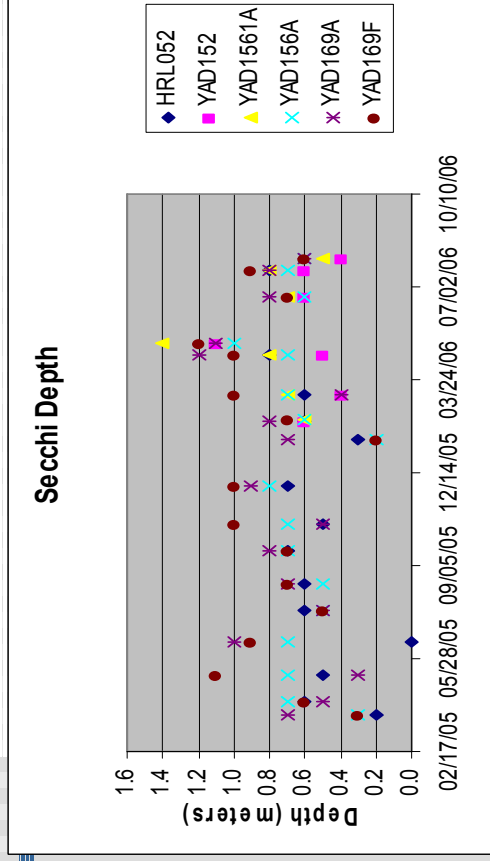


High Rock Lake Chemical Data March 2005 – August 2006

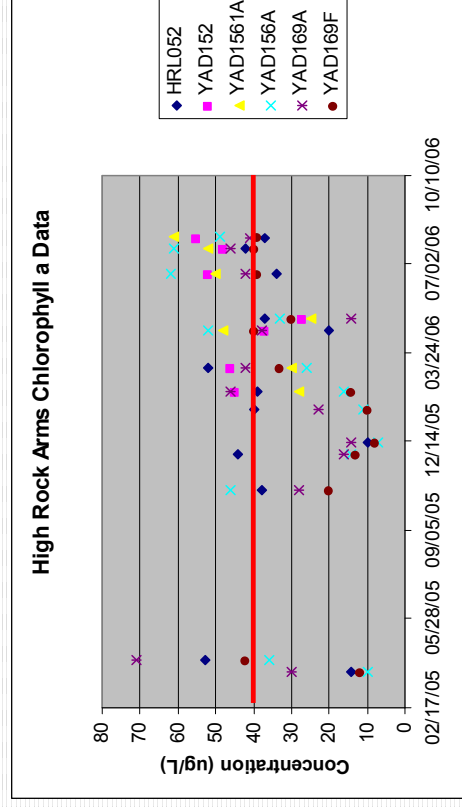
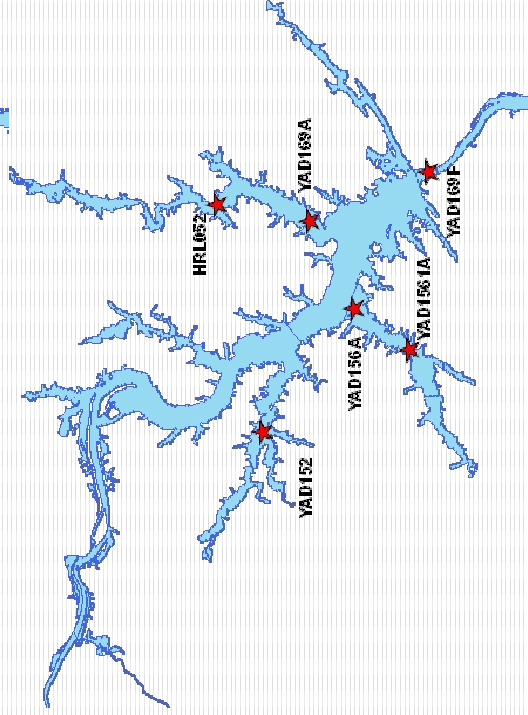
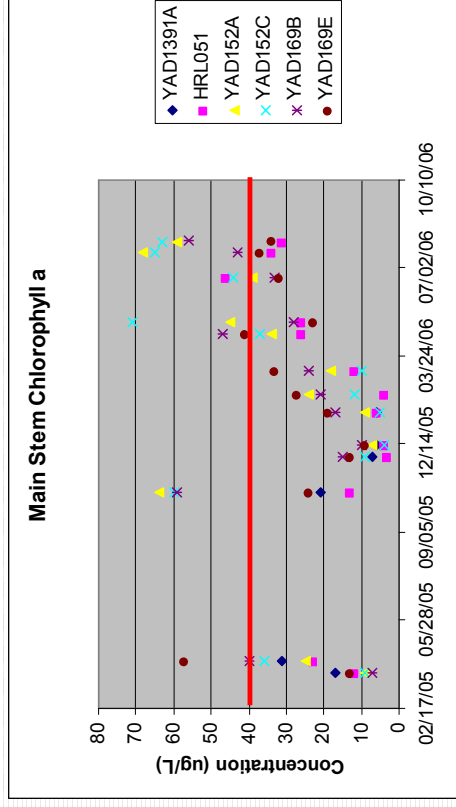
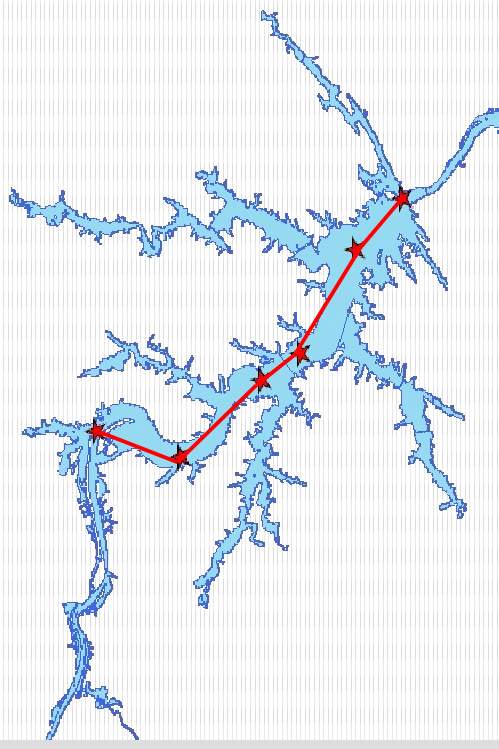
High Rock Lake Chemical Data: Turbidity Measures (Main Stem)



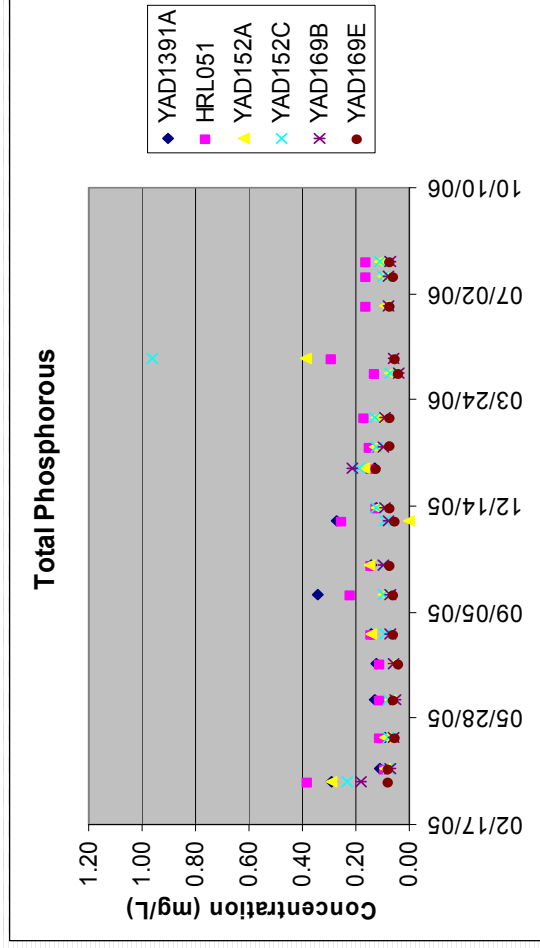
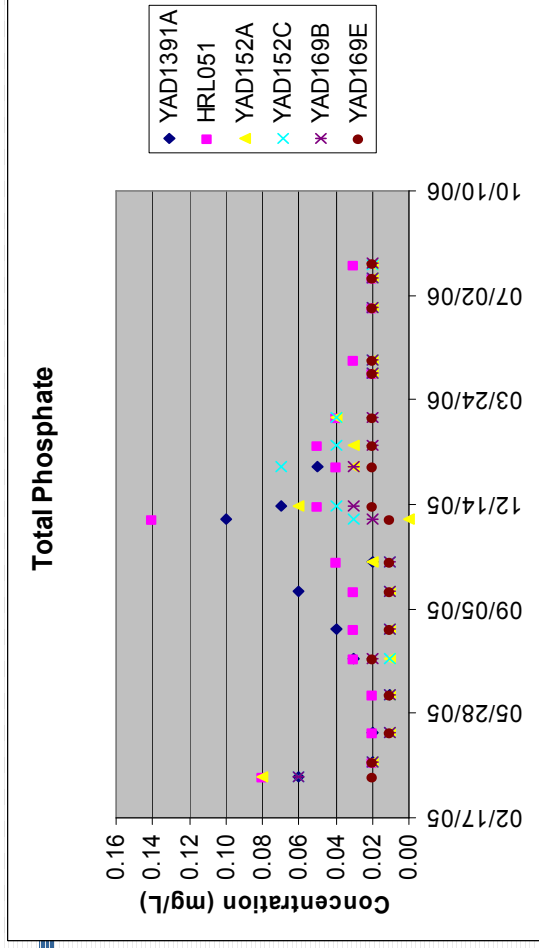
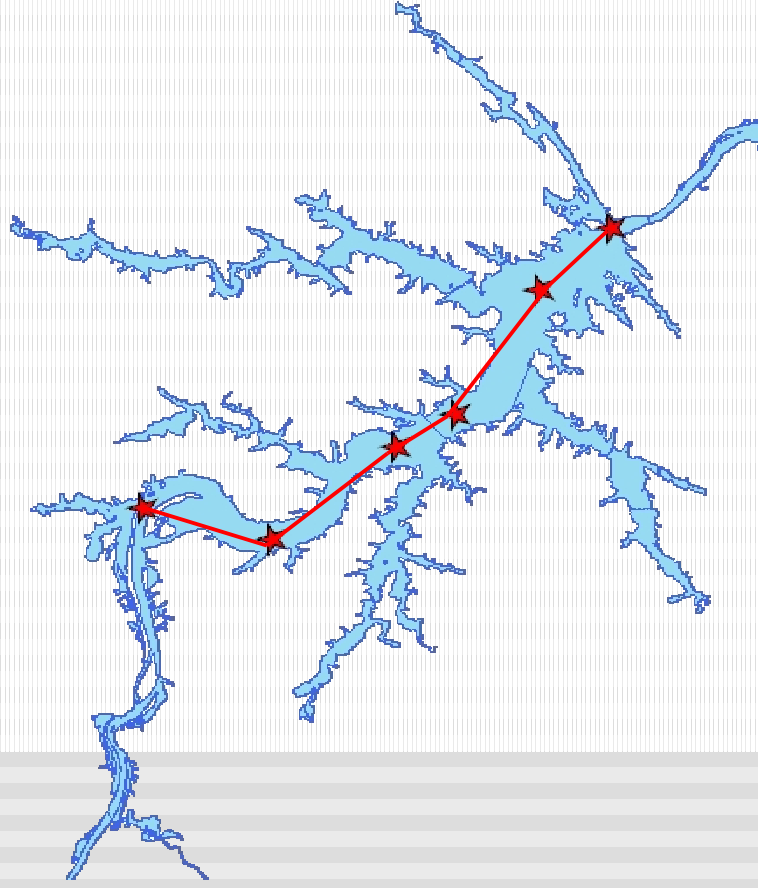
High Rock Lake Chemical Data: Turbidity Measures (Lake Arms)



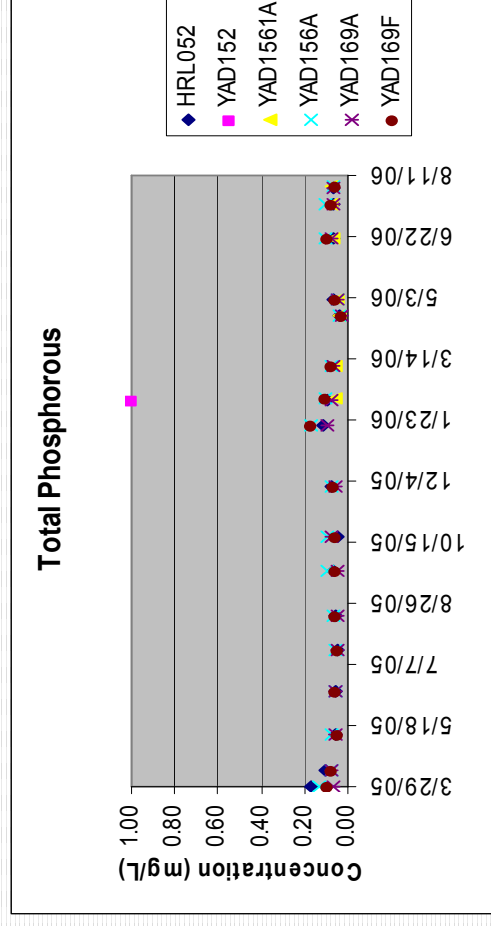
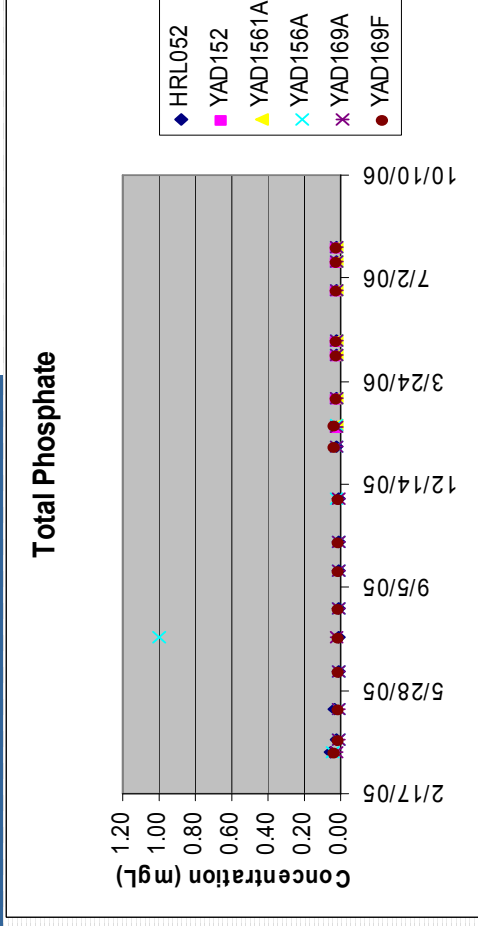
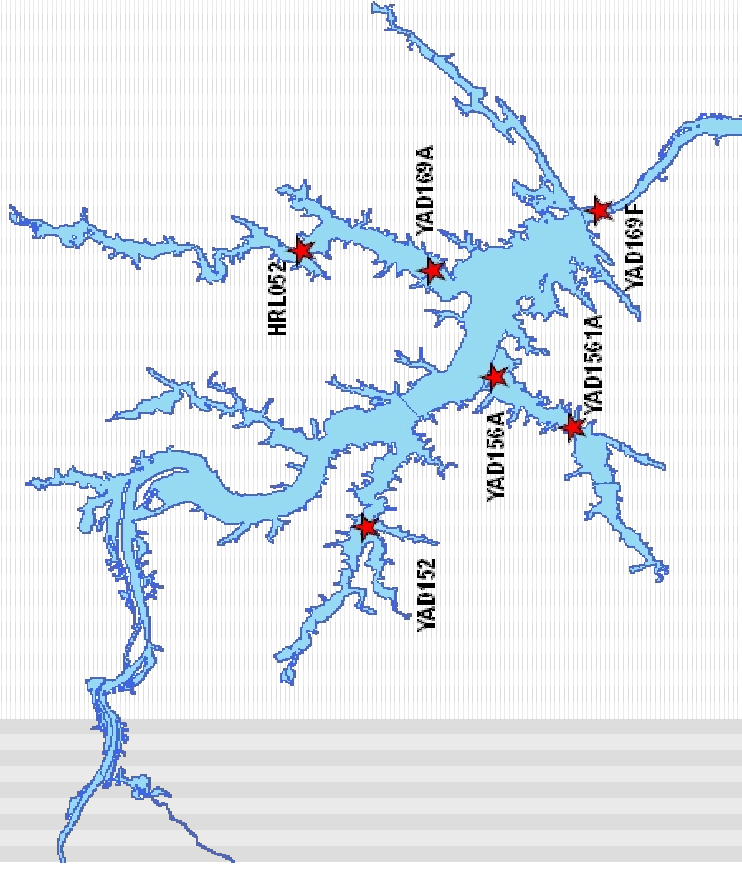
High Rock Lake Chemical Data: Chlorophyll a



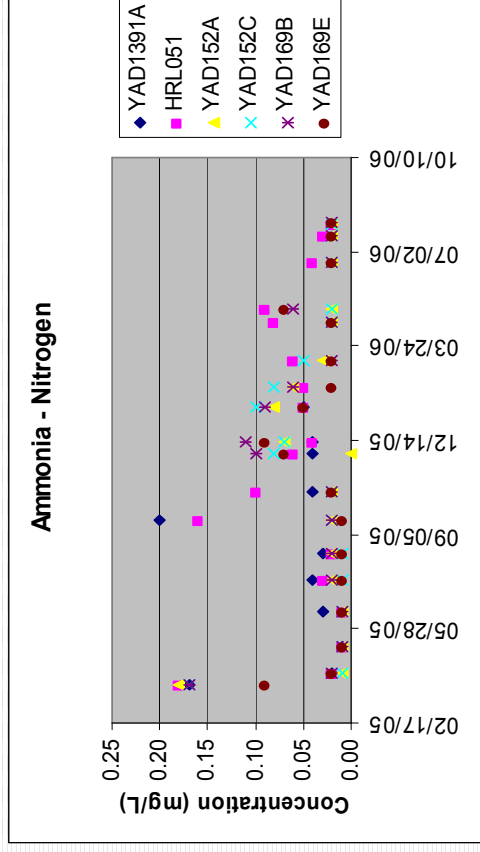
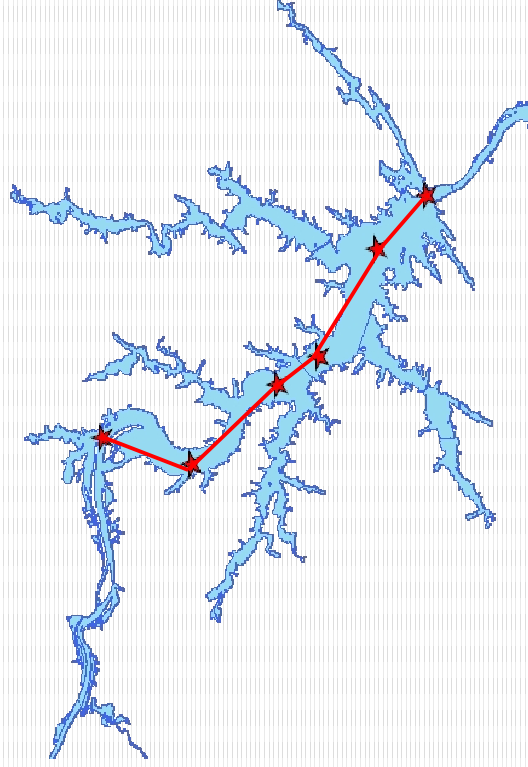
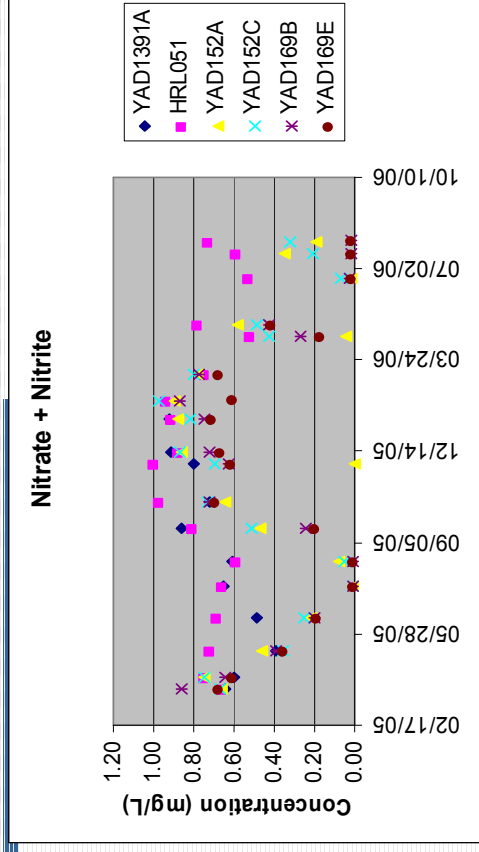
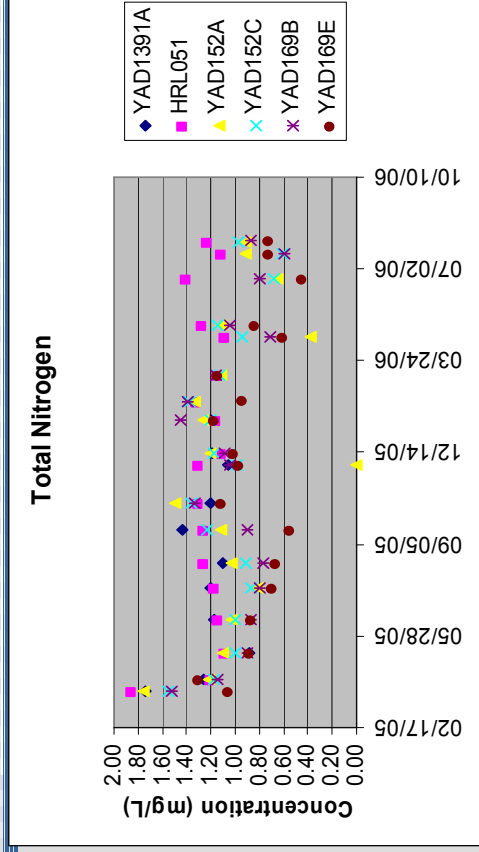
High Rock Lake Chemical Data: Phosphorous (Main Stem)



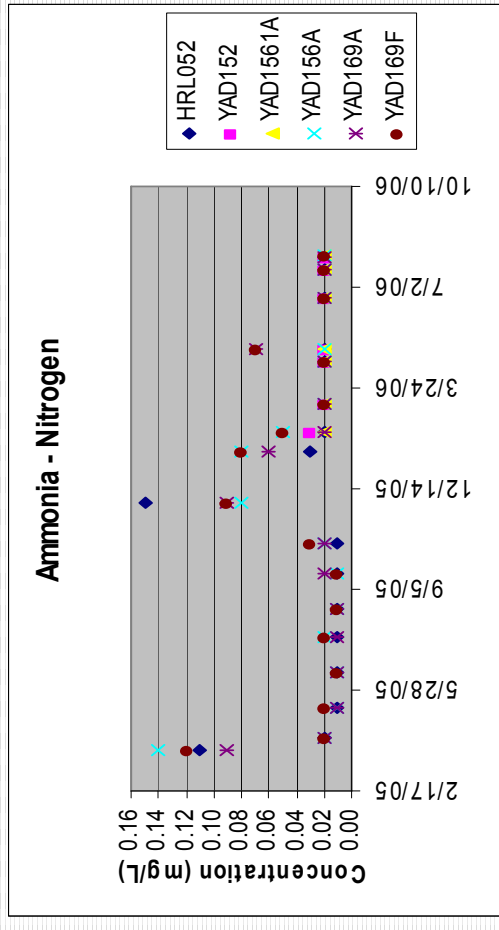
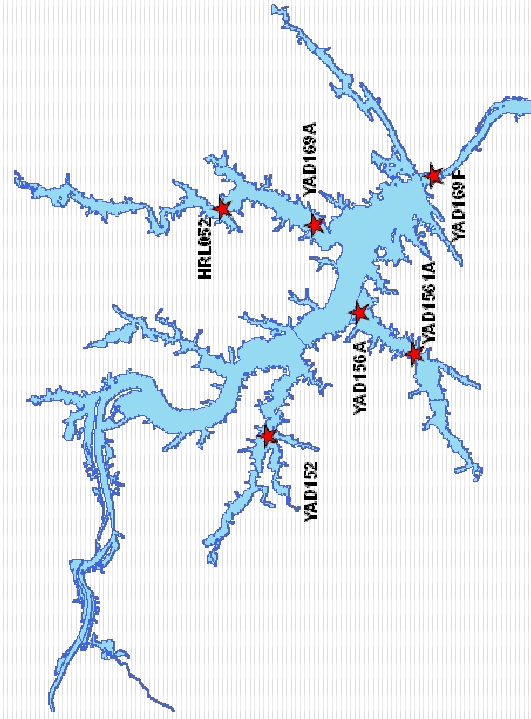
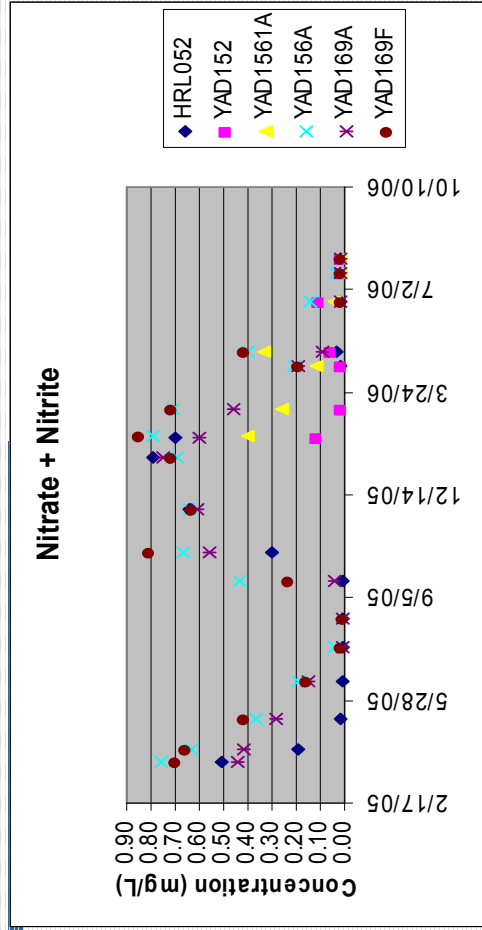
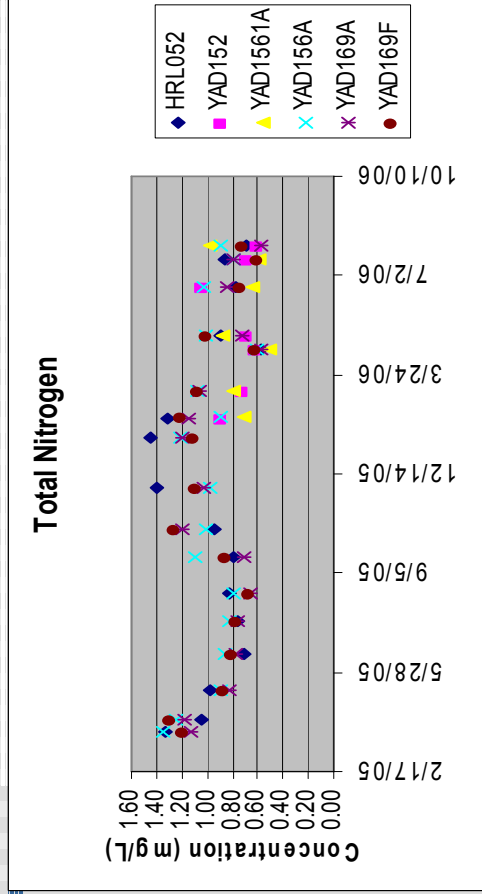
High Rock Lake Chemical Data: Phosphorous (Lake Arms)



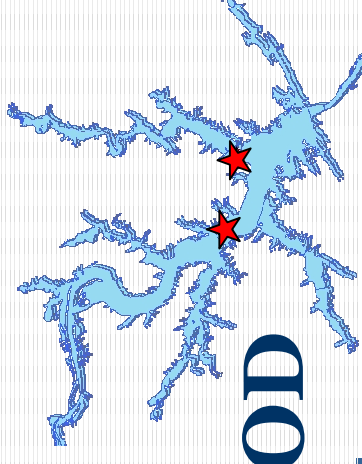
High Rock Lake Chemical Data: Nitrogen (Main Stem)



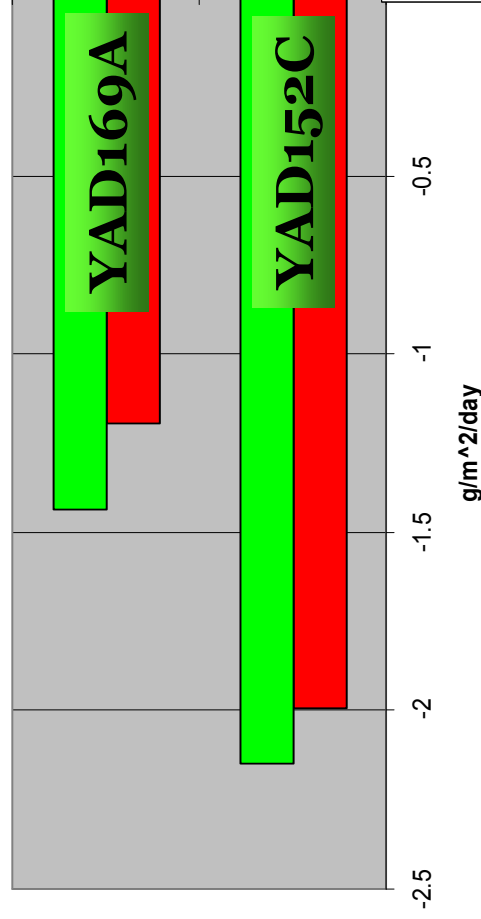
High Rock Lake Chemical Data: Nitrogen (Lake Arms)



High Rock Lake: Nutrient Flux Rates & SOD



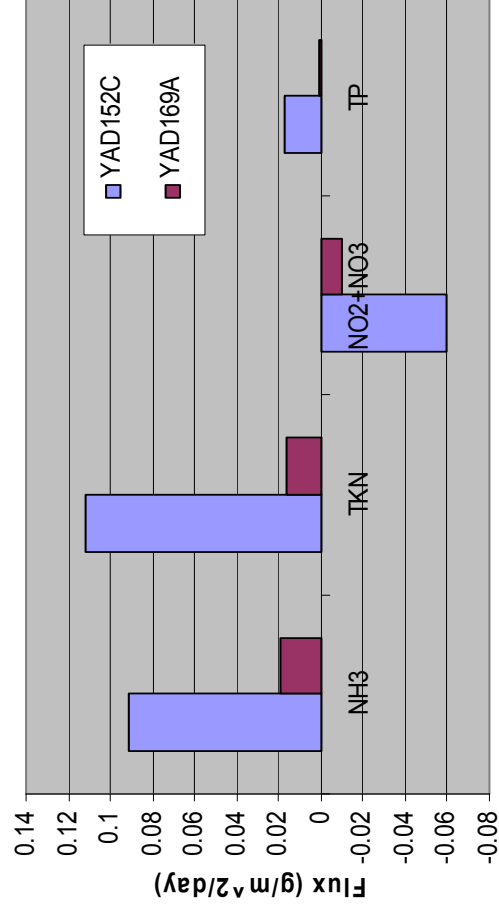
Sediment Oxygen Demand

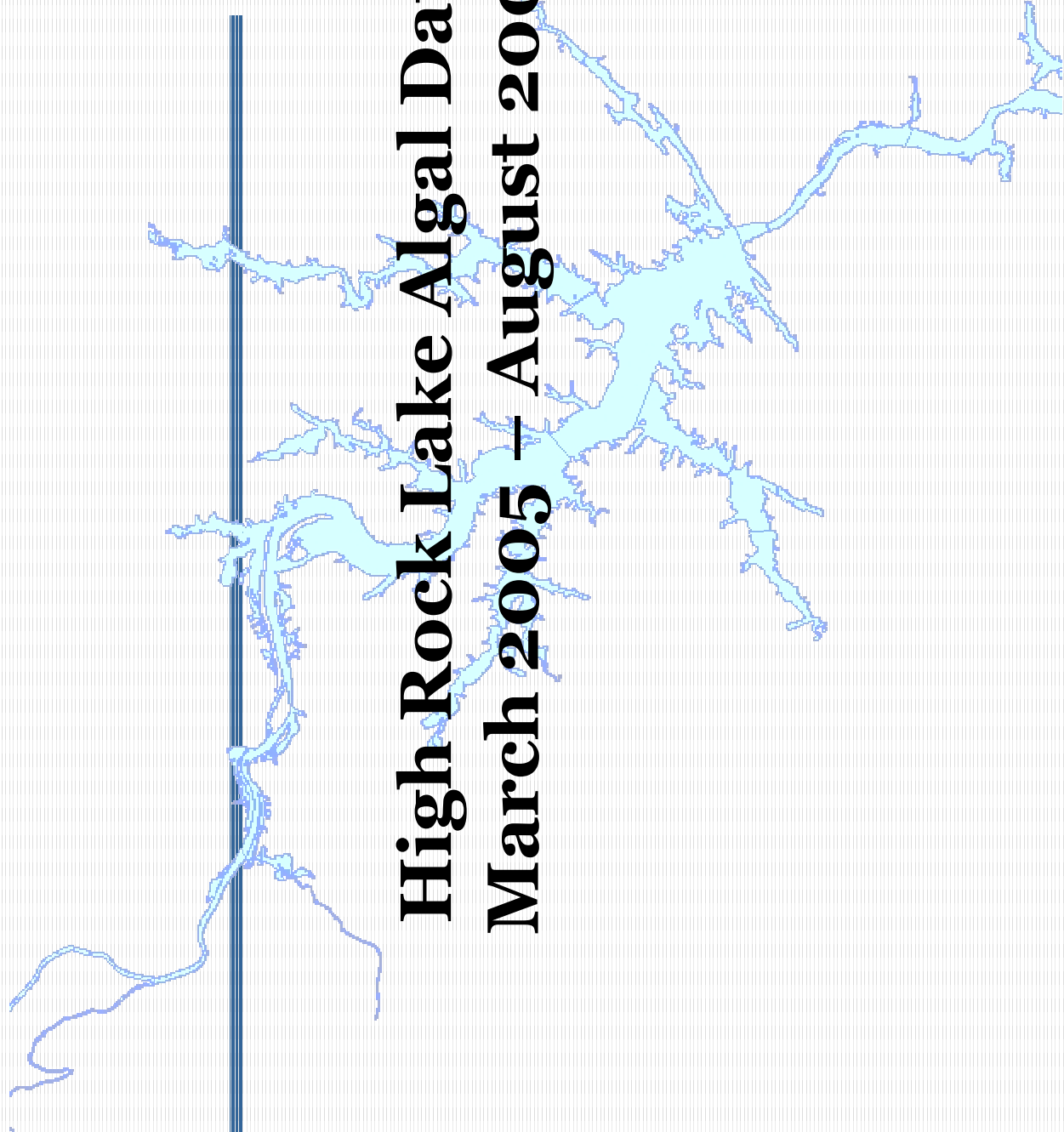


- SOD at ambient temperature
- SOD corrected to 20°C

2 Sampling Dates:
May 25-26, 2005
June 1-2, 2005

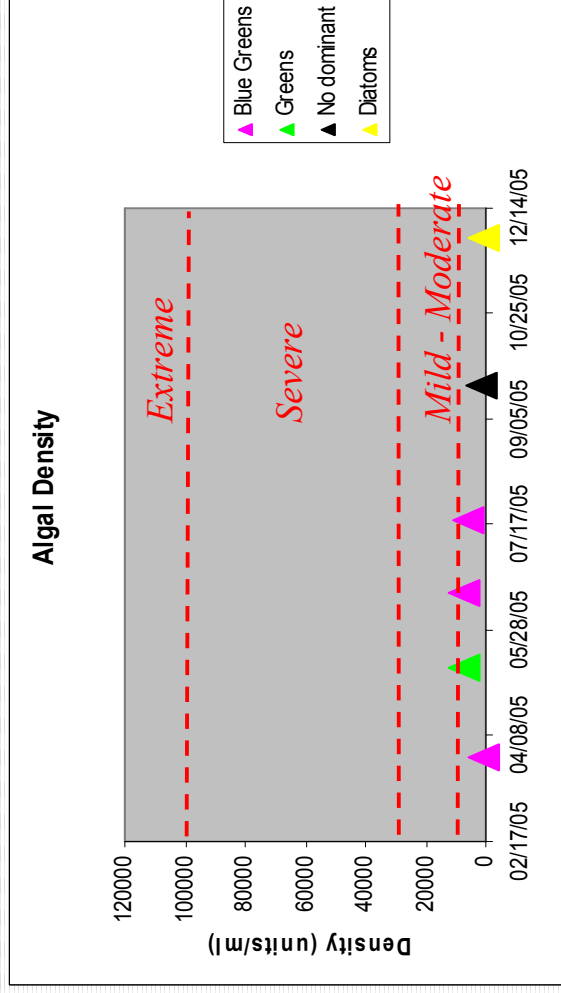
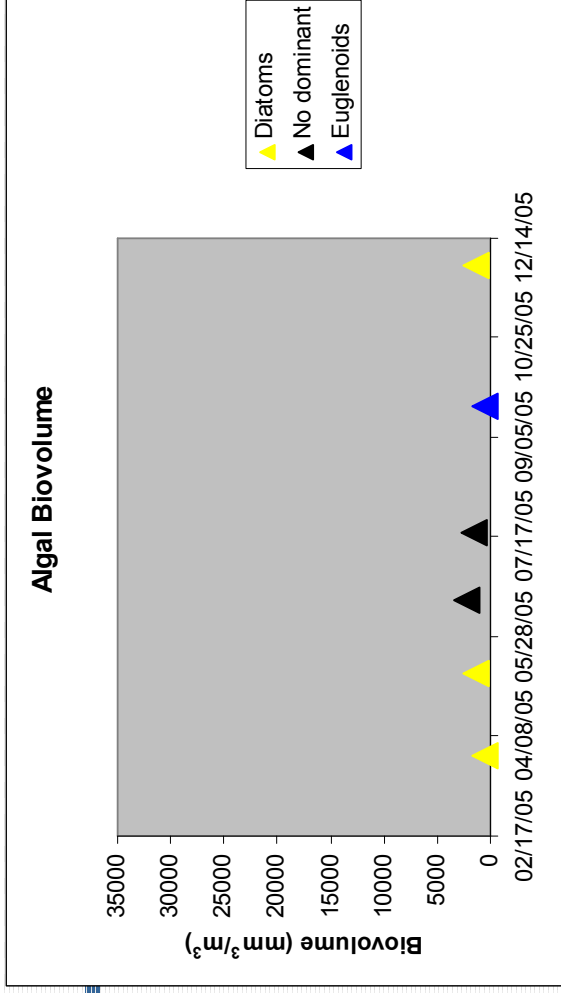
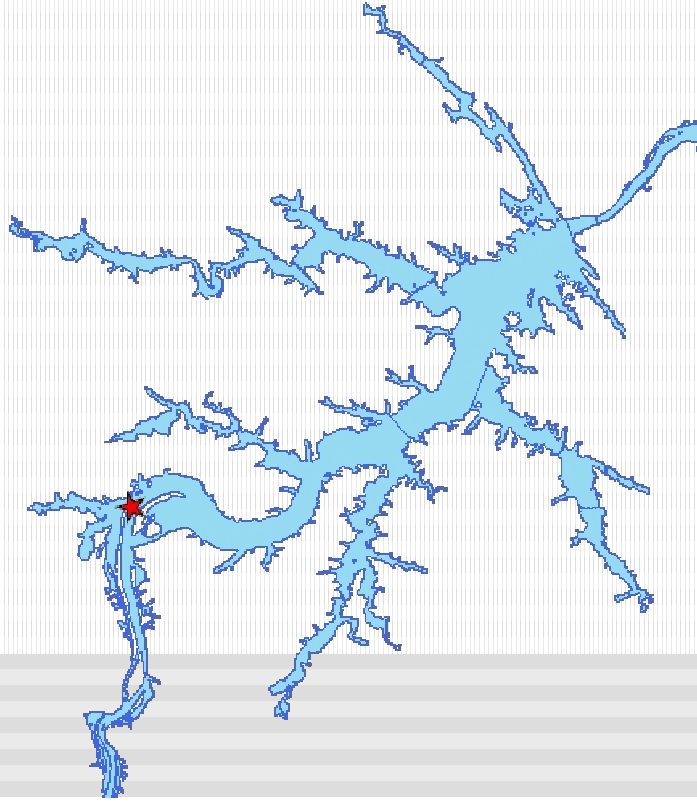
Average Nutrient Flux Rates



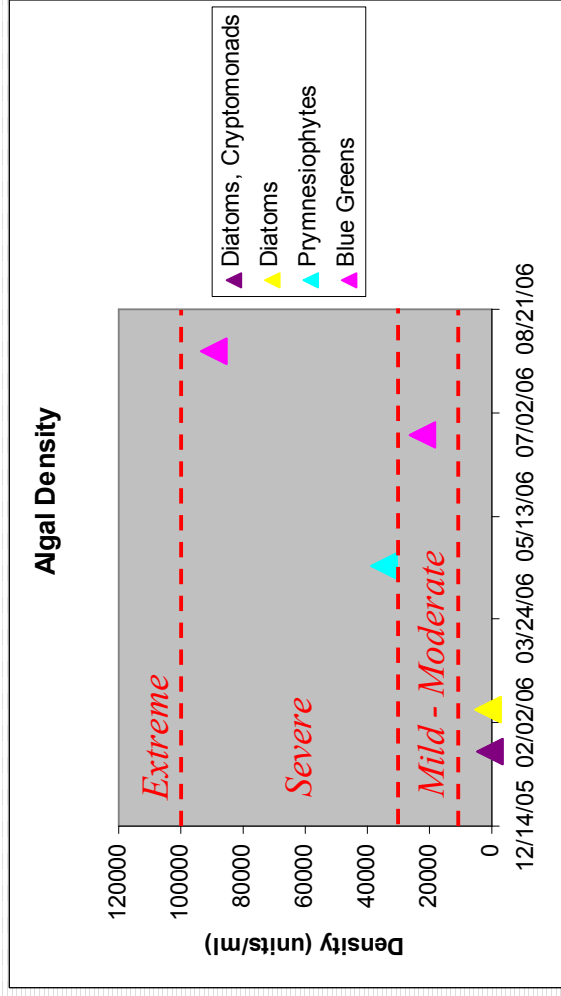
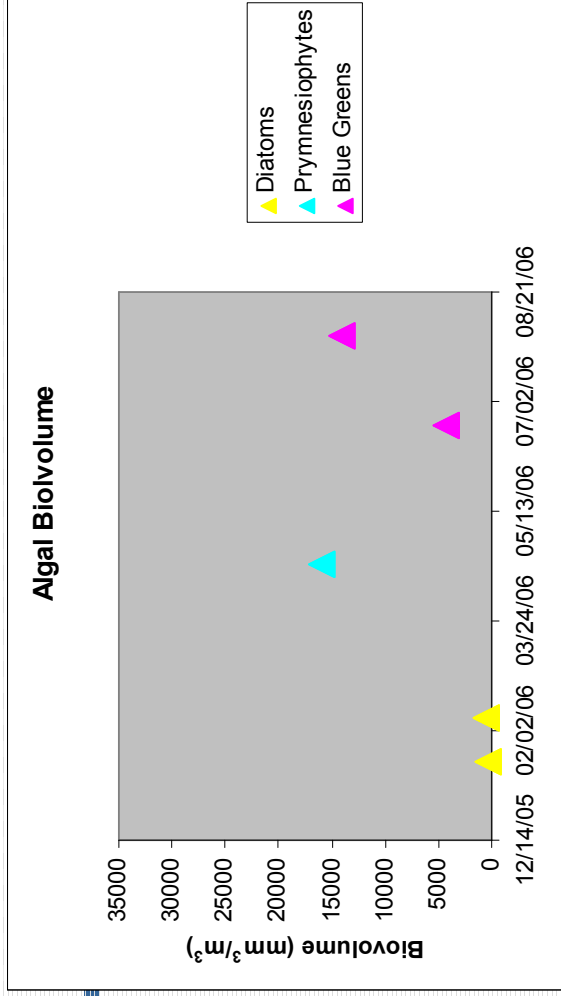
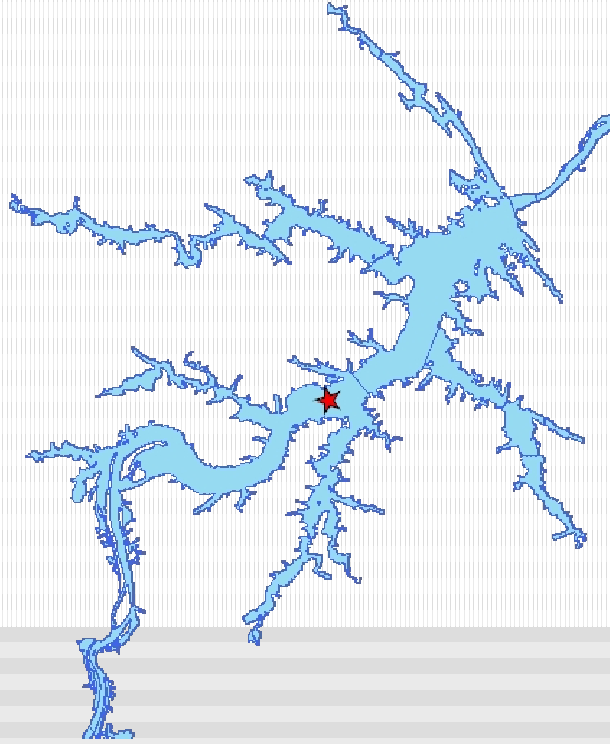


**High Rock Lake Algal Data
March 2005 – August 2006**

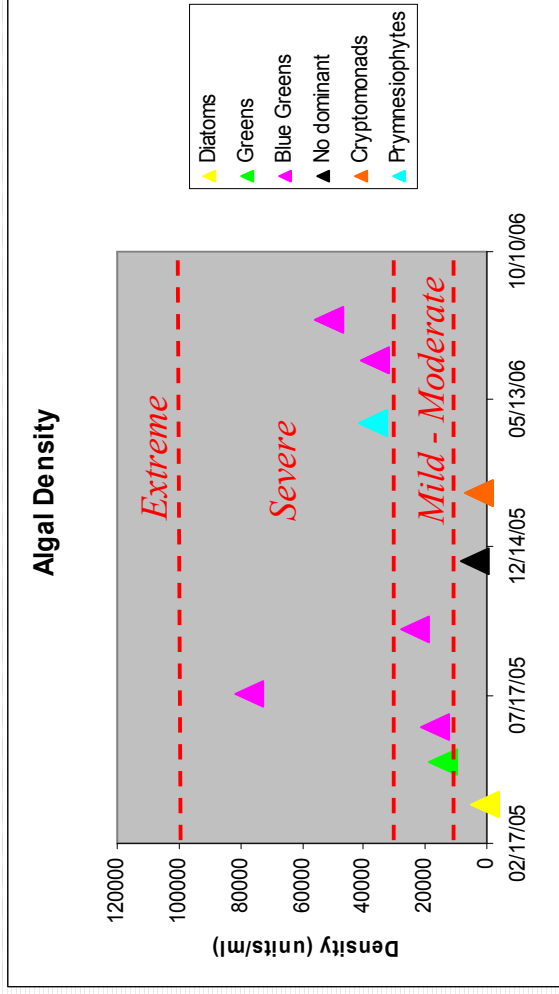
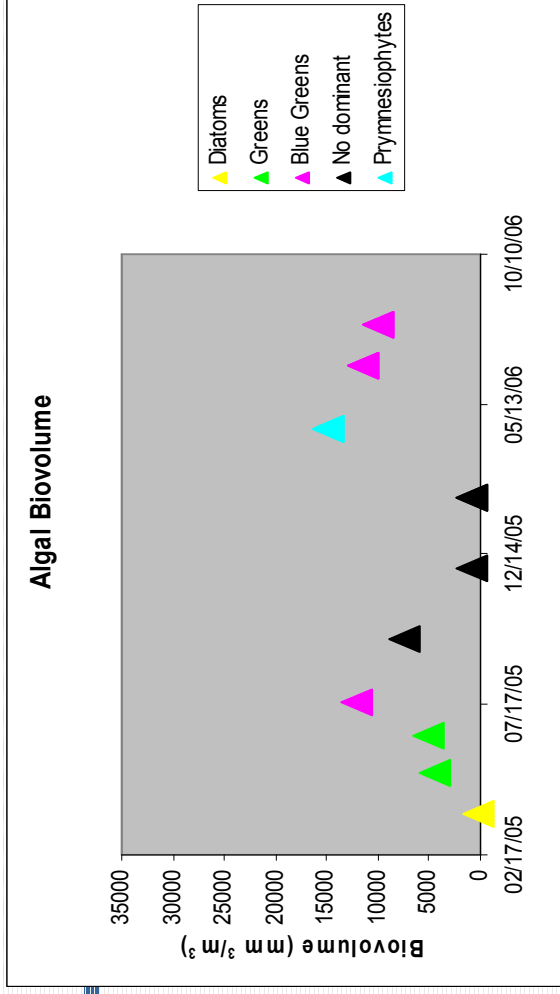
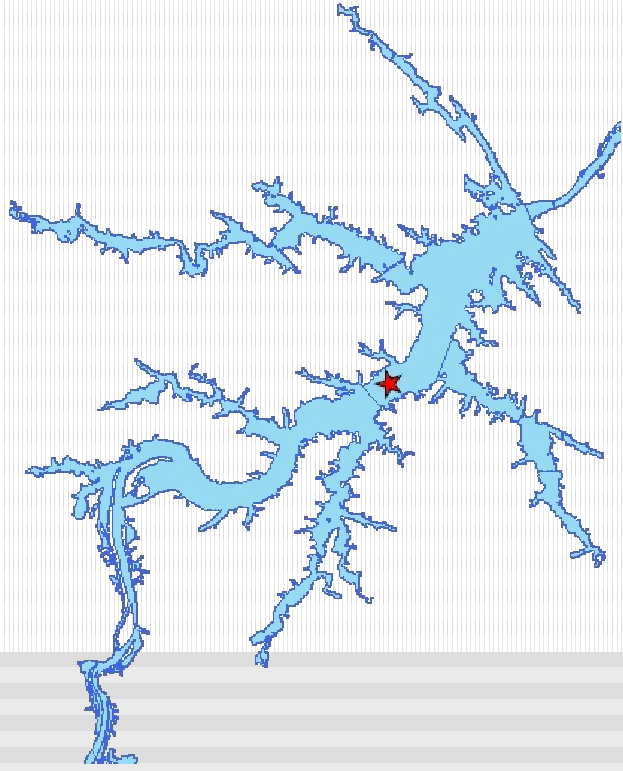
High Rock Lake Algal Data: Station YAD1391A



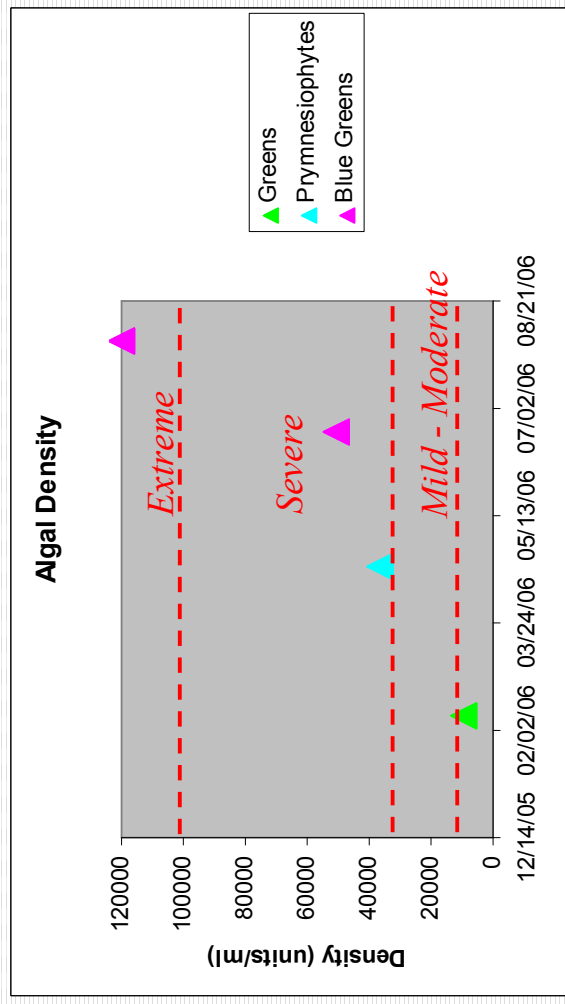
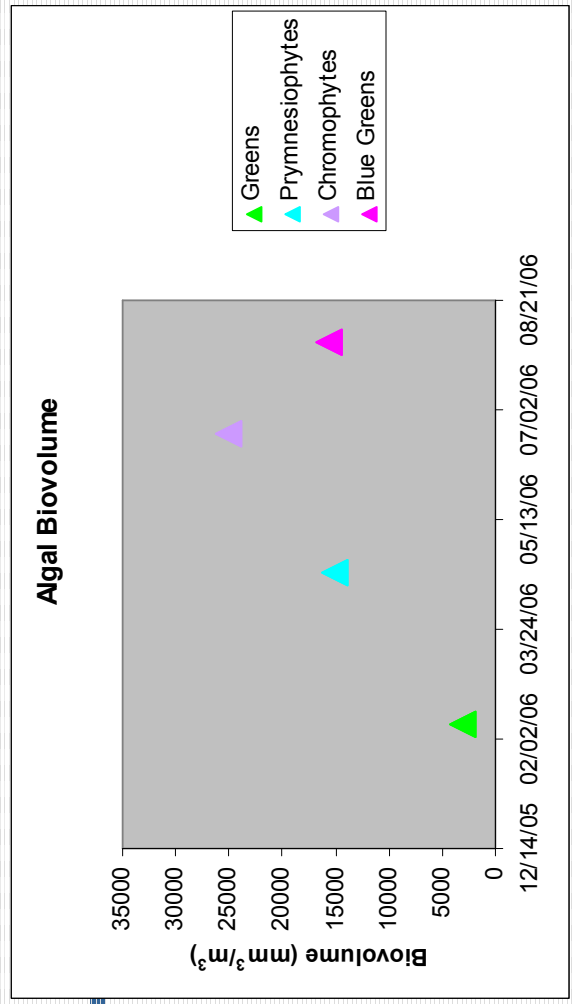
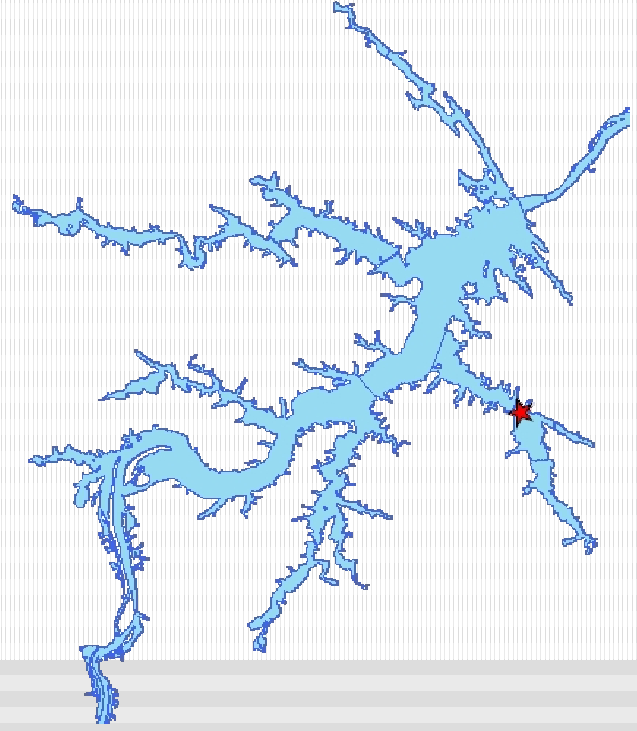
High Rock Lake Algal Data: Station YAD152A



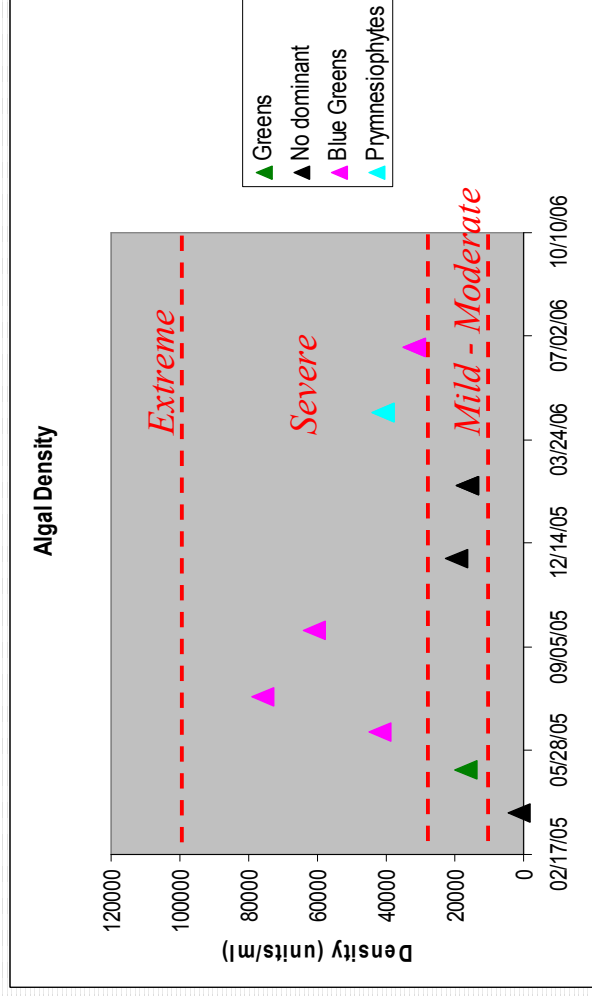
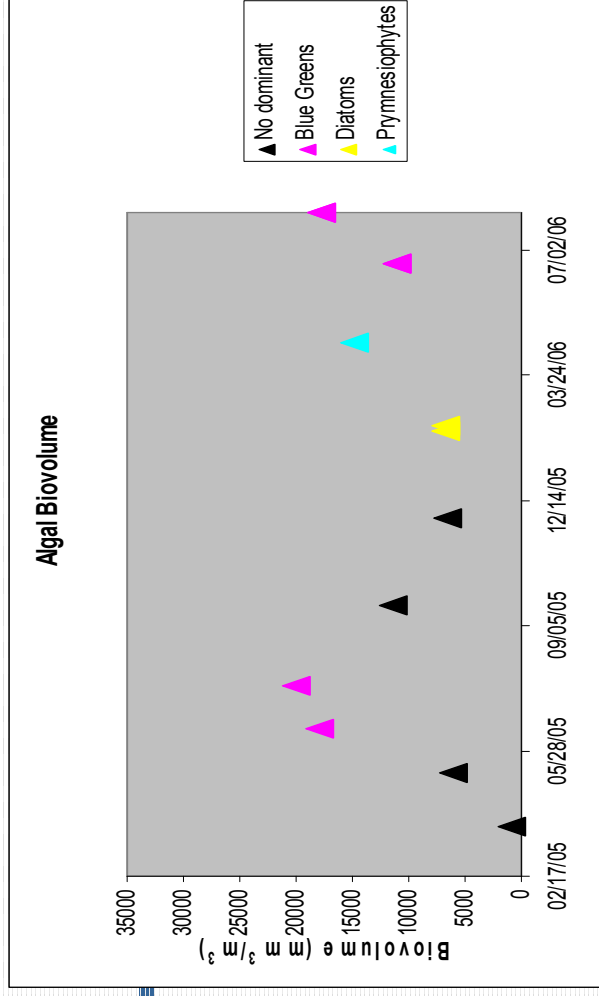
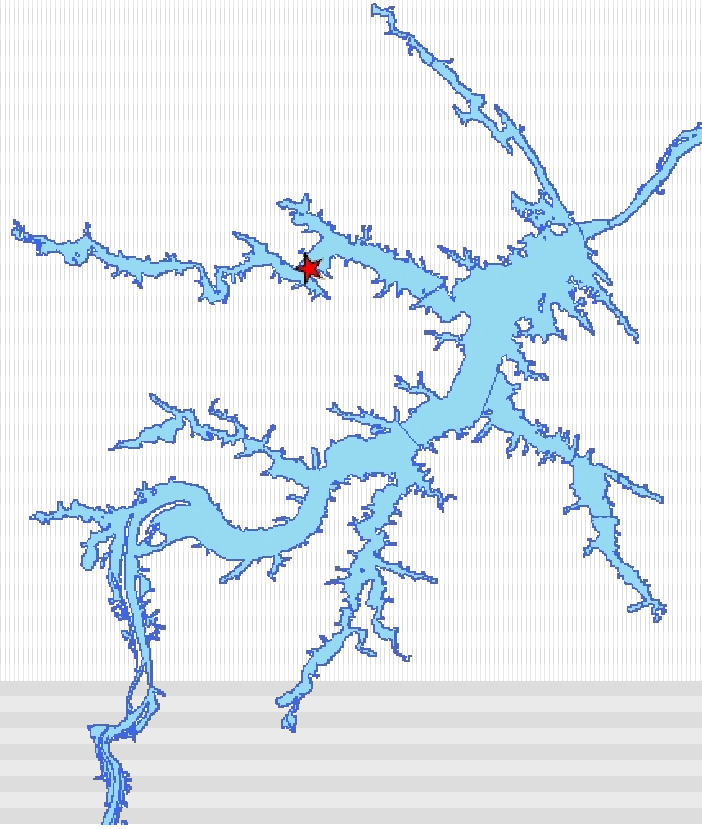
High Rock Lake Algal Data: Station YAD152C



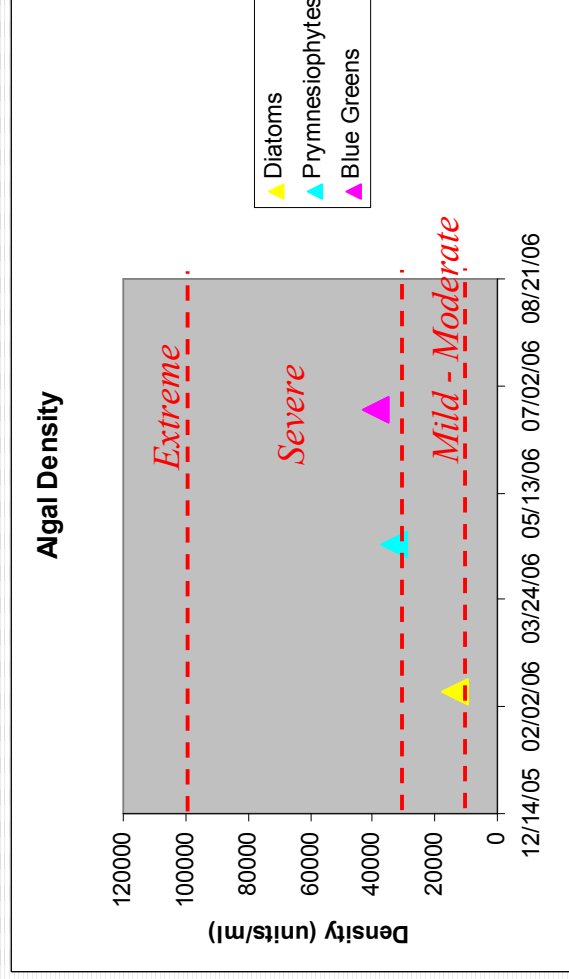
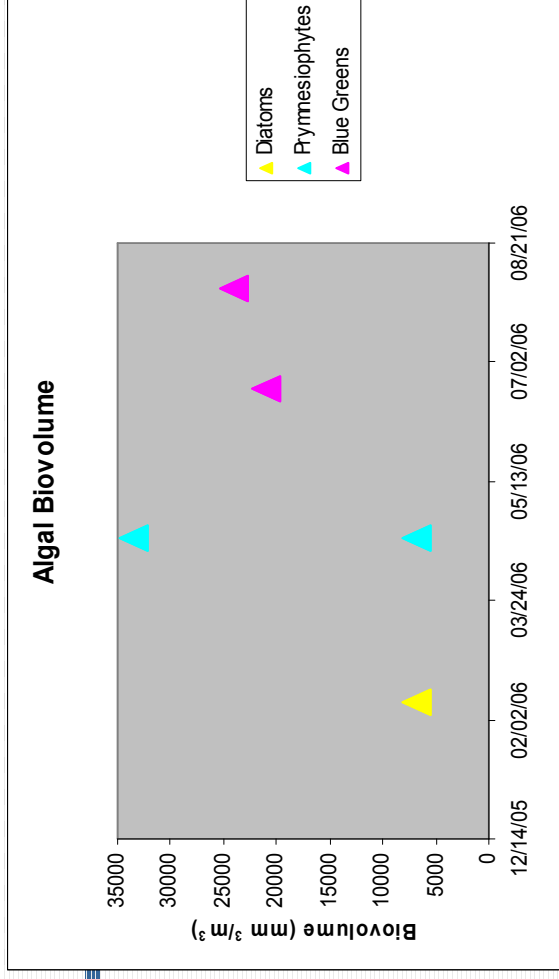
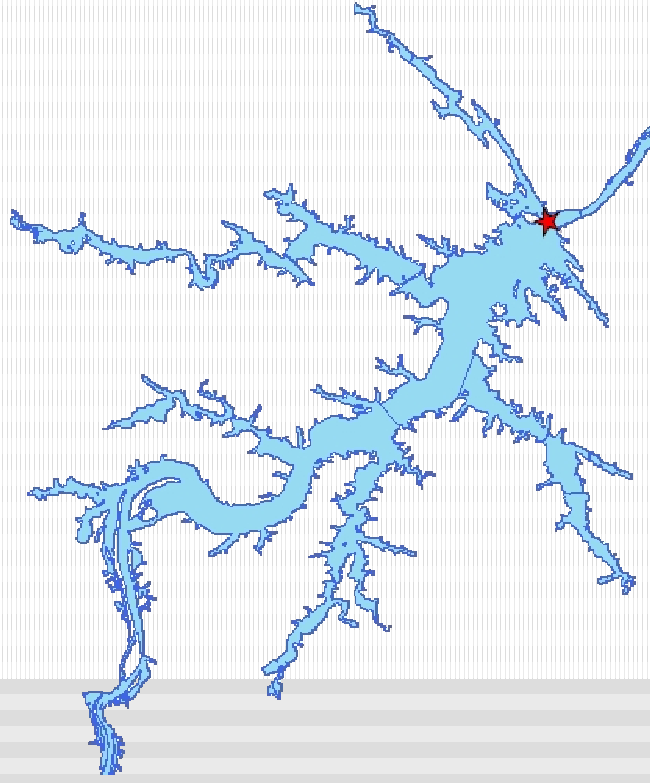
High Rock Algal Data: Station YAD1561A



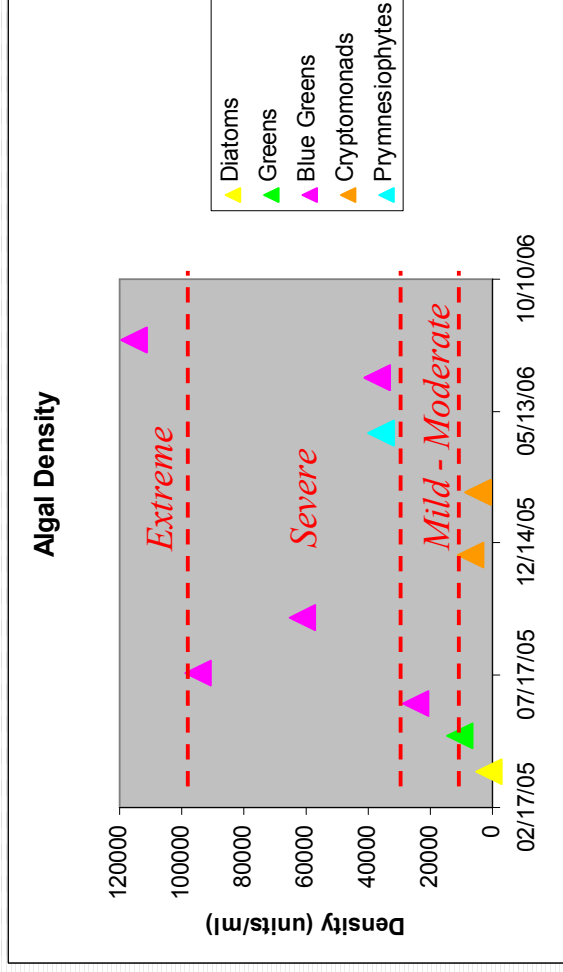
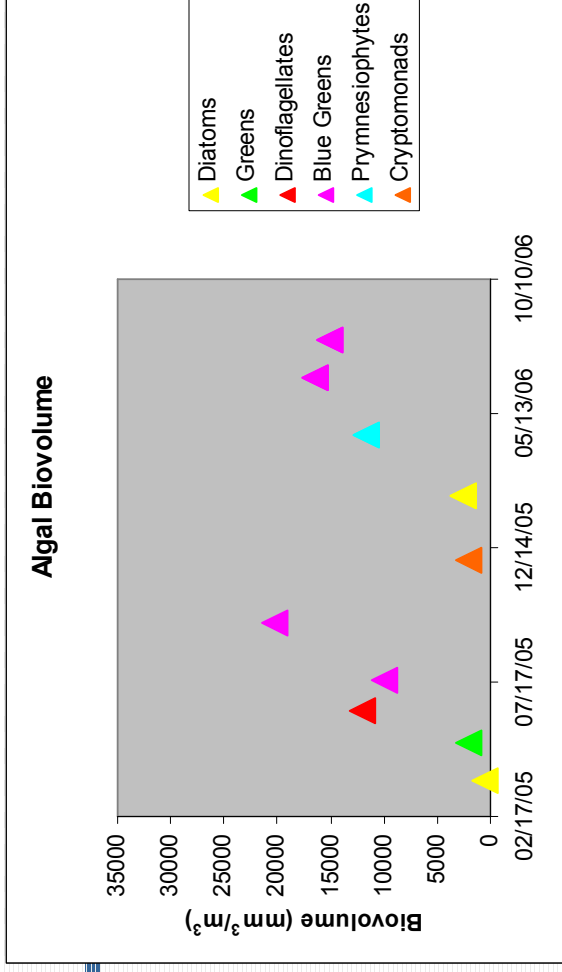
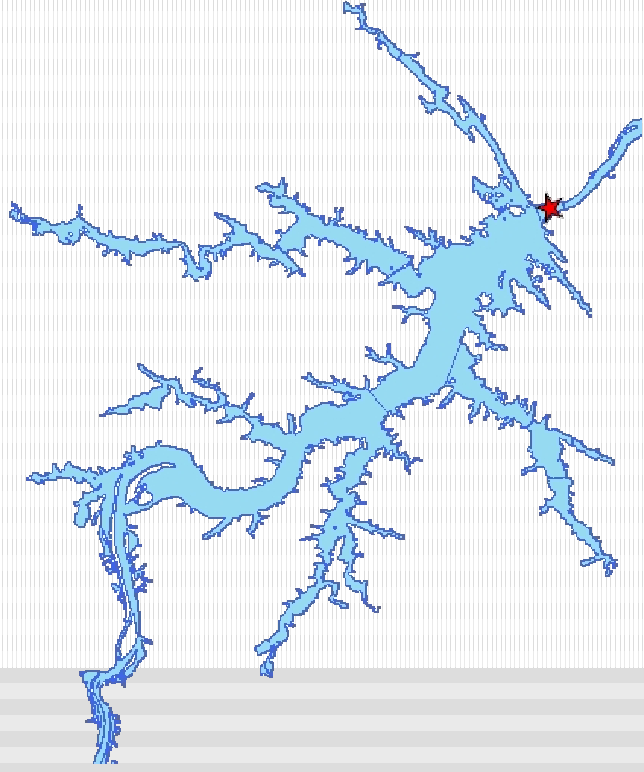
High Rock Lake Algal Data: Station HRL052



High Rock Lake Algal Data: Station YAD169E

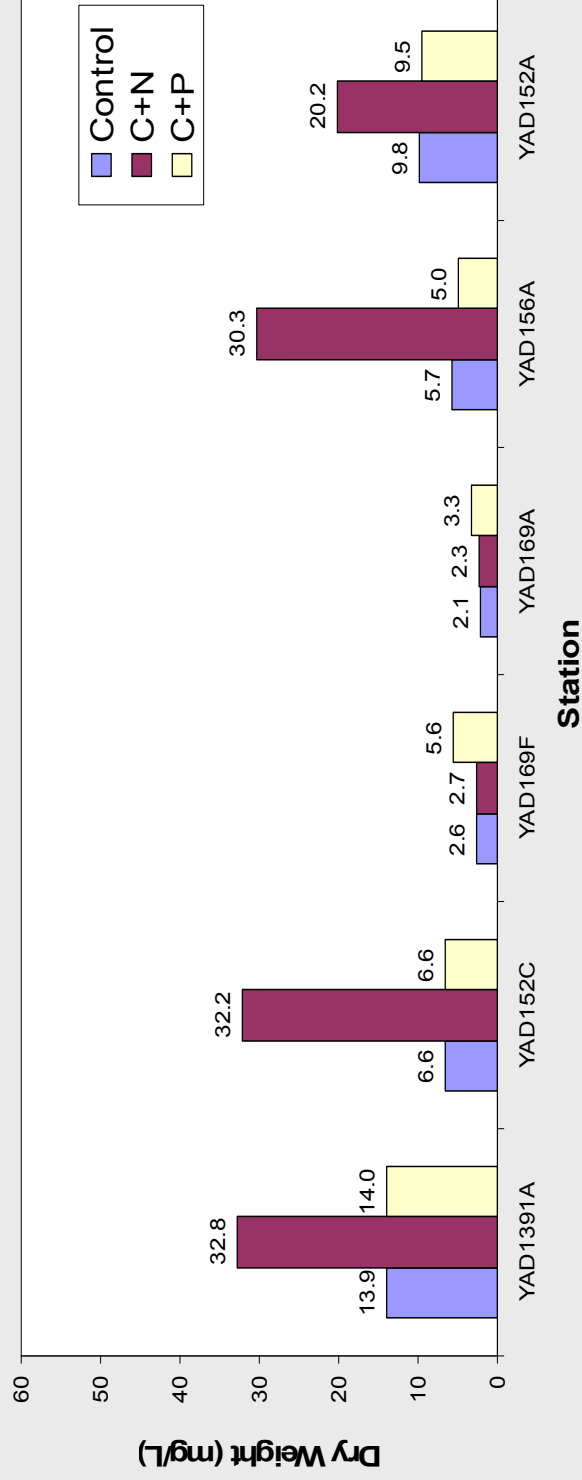


High Rock Algal Data: Station YAD169F



High Rock Lake: 2005 Algal Growth Potential

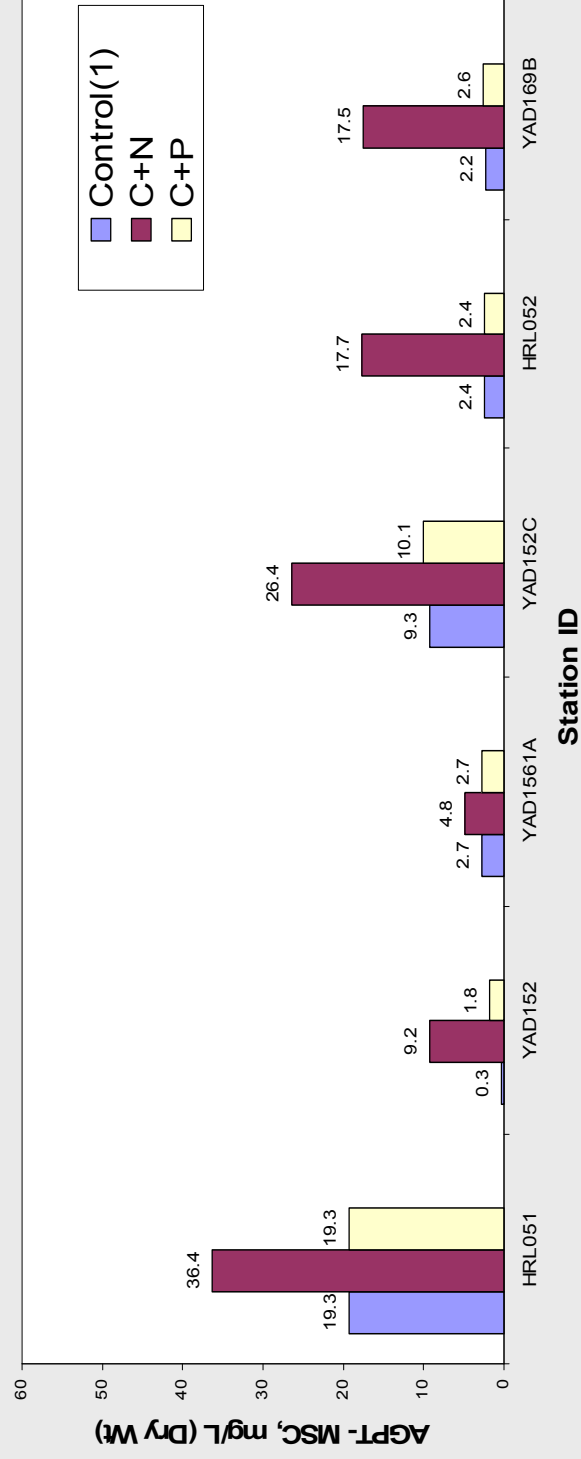
High Rock Lake Algal Growth Potential
June 15, 2005



C+N = Control + 1.0 mg/L Nitrate-N
C+P = Control + 0.05 mg/L Phosphate-P

High Rock Lake: 2006 Algal Growth Potential

High Rock Lake Algal Growth Potential
July 19, 2006



C+N = Control + 1.0 mg/L Nitrate-N

C+P = Control + 0.05 mg/L Phosphate-P

Conclusions

- Drought conditions from 2005 – 2006
- Turbidity is worse in the main stem of the lake
- Nitrogen is the predominant limiting nutrient
- There is evidence of internal nutrient loading at site YAD152c
- Algal blooms are persistent in all seasons except winter
- Most portions of the lake have nuisance algal bloom
- Lake might also be impaired for pH in the 2008 Integrated Report