

# Water Sample Study:

How Temperature Affects  
Water Samples Over Time

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# Purpose

- To see if storage temperature affects the pH, Turbidity and Nutrient Levels of various samples of water over time.



# Designing the Experiment

- Duration of Experiment: 34 Days
  - 7 Different Test Days (7/30, 7/31, 8/01, 8/05, 8/08, 8/13, 9/02)
- Types of Water Tested:
  - Deep Ocean Water
  - Surface Ocean Water
  - Anchialine Pond Water
  - Groundwater
- Storage Temperature:
  - +24°C Ambient (Laboratory) Temperature
  - +3°C (Refrigerator Temperature)
  - -20°C (Freezer Temperature)
- 220 125mL Sample Bottles
  - 3 Bottles for every different sample



# Preparing the Sample Bottles

- Preparing the Sample Bottles:
  1. Rinsed with Reverse Osmosis De-Ionized (RODI) Water
  2. Rinsed with a 10% Hydrochloric Acid (HCl) Solution
  3. Triple rinsed with RODI Water
  4. Air Dried





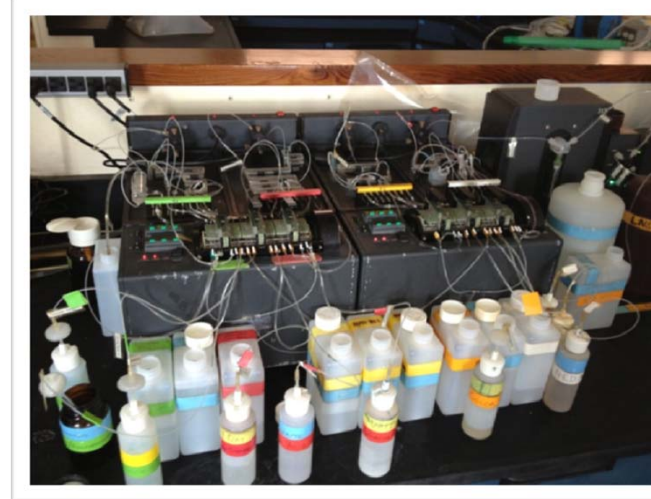
# Collecting the Samples

- All water types were collected in a 20L Cubetainer
- The Cubetainer was rinsed three times with the water type before the sample was collected
- Collection Location:
  - Deep Ocean Water: ADD LOCATION
  - Surface Ocean Water: ADD LOCATION
  - Anchialine Pond Water: ADD LOCATION
  - Groundwater: Groundwater Well #5



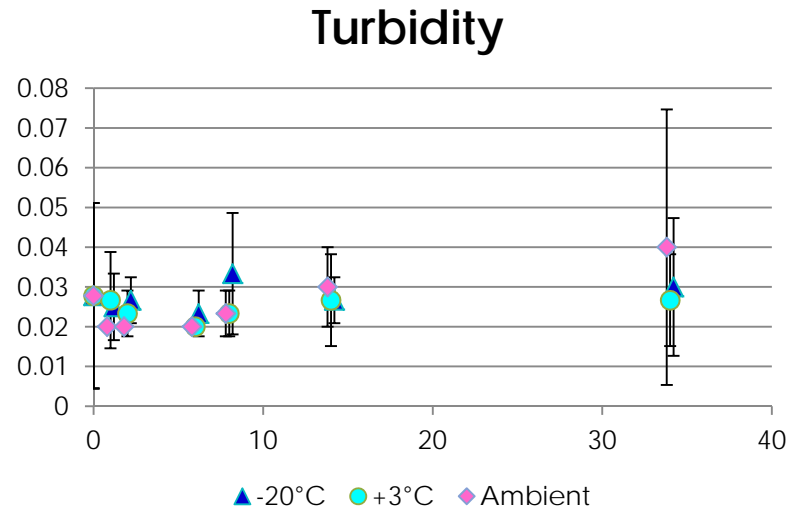
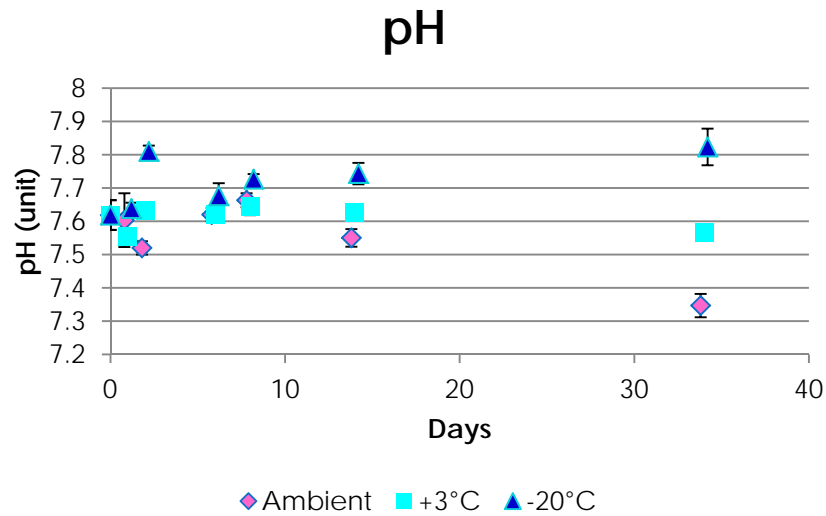
# Types of Tests

- pH
- Turbidity
- Total Nutrients

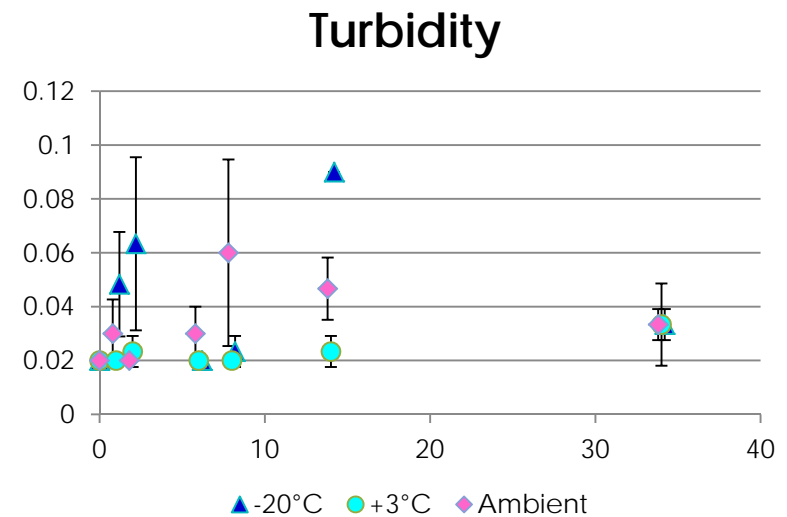
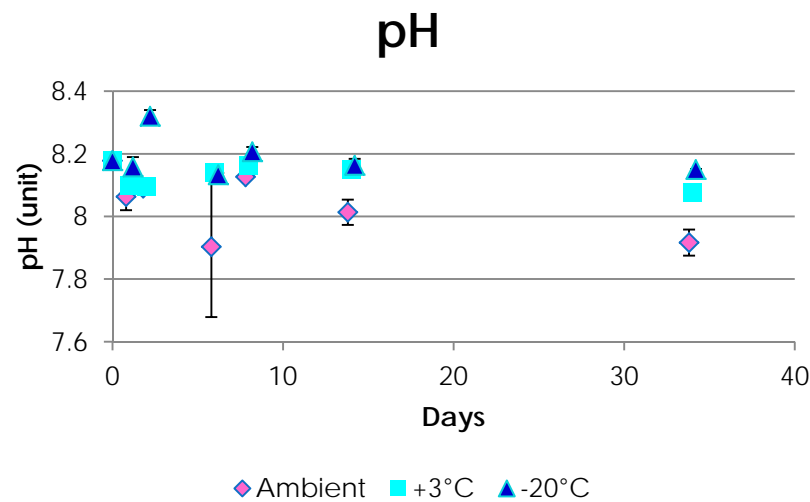




# Deep Ocean Water: Results

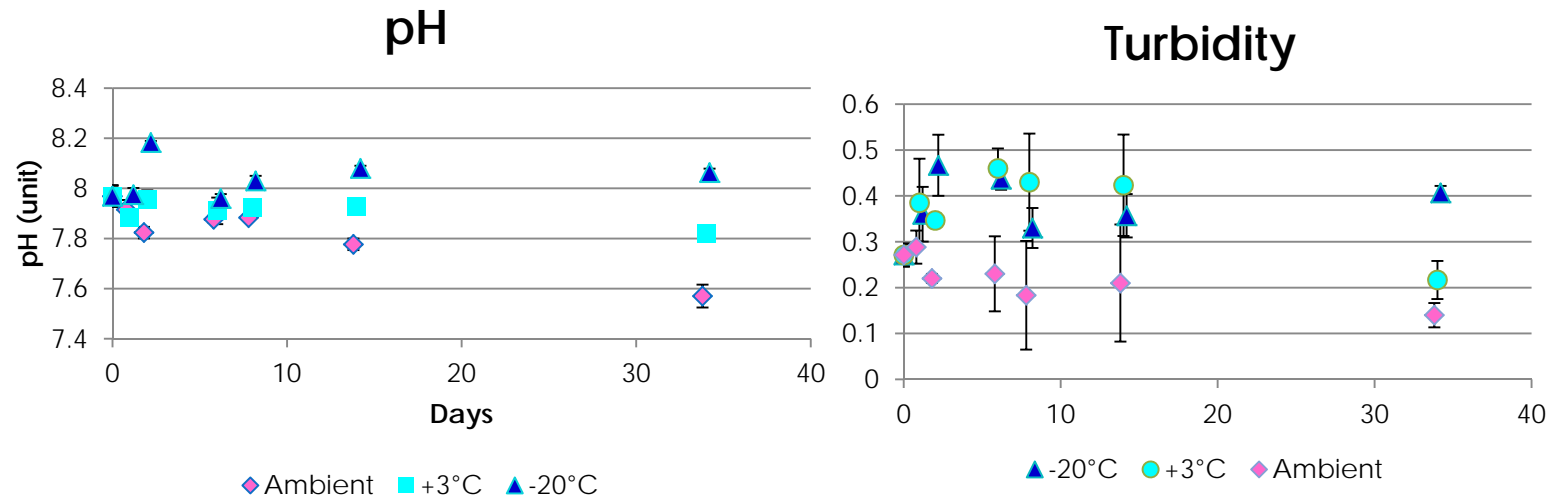


# Surface Ocean Water: Results

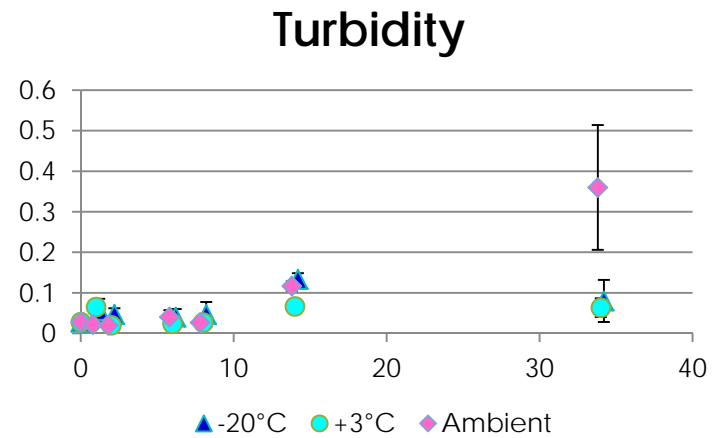
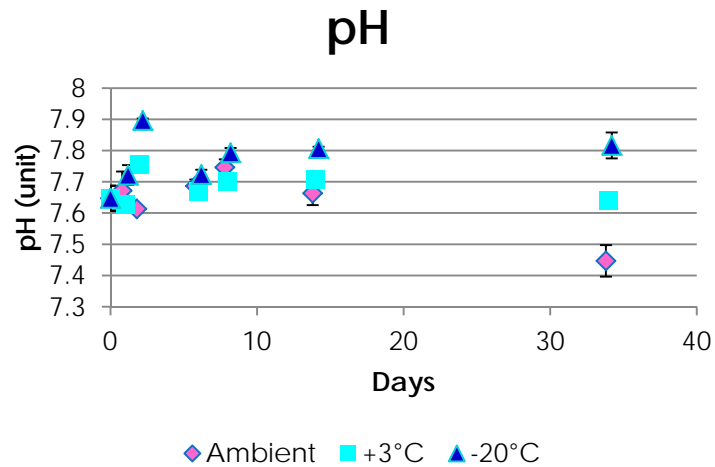




# Anchialine Pond Water: Results



# Groundwater: Results





**The End!**

