Great Salt Lake Water Quality Studies

Feeding Rate Experiment

Brine Shrimp Kinetics Study

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- 1. Remove ~100 adult, age-matched artemia from main culture tank and rinse in fresh media in a 200-ml beaker. (Artemia from the same hatch date and culture tank are very similar in size.)
- 2. Add 30 mls of fresh 100 g/L and 160 g/L GSL media to 50 ml centrifuge tubes.
- 3. Carefully transfer 15 artemia to each tube with a plastic transfer pipette, minimizing the amount of liquid transferred with each artemia.
- 4. Gently aerate the tube with capillary tubing to ensure even mixing and full air saturation and allow artemia a minimum of 10 min to recover from handling.
- 5. Add 2 mls of *Dunaliella viridis* concentrate to each tube (save sample of algae to perform cell counts for algae density).
- 6. Immediately take an initial water sample of 1 ml, and then take 1 ml sample every 10 minutes up to 60 minutes.
- 7. After thorough mixing to avoid problems with settling, measure the absorbance of all water samples on a spectrophotometer at 750 nm.
- 8. Plot absorbance over time and perform a linear regression on the decrease in absorbance to obtain the slope (change in absorbance per minute).
- 9. Divide slope by number of individuals per tube and express feeding rate as change in absorbance/ minute/ individual.