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*The Effect of Salt on the Translucent Quality of Water*

A method that identifies salinity levels in water is useful to marine biologists, helping them predict what organisms live in a certain location. A method using a small water sample in a laboratory setting is a cheaper and more time efficient than field observations. This experiment focuses on how increasing amounts of salt in distilled water affect the translucent quality of the water. The hypothesis was that as the amount of salt in the water increases, the translucent quality of water will decrease because the salt will disperse light passing through the water. This experiment was conducted by building a test apparatus that would shine light through water and use a photographic light receptor to record the foot candles received. Increments of 78.5 gram of salt were added to 7.85 liters of distilled water, starting at a baseline of zero up to 235.5 grams of salt. As the salt content increased, the translucent quality decreased. At first the translucent quality decreased rapidly: there were 250.33 foot candles difference between 0% and 1% salt. As more salt was added, the translucent quality decreased at a lower more constant rate. In conclusion, as the amount of salt increased, the translucent quality of the water decreased. This method can determine baseline data points that can later be applied to water samples in the field. Applications of these findings are in water bodies, where increased salinity may result in decreased translucent quality and impact existing biomes found at varying locations in the water body.