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*Catching the Electric Current*

Under conditions existing at the Native Aquatic Species Restoration Facility, I tested the electrolysis of water using an Oxygenator to produce oxygen for fish. It was successful in increasing the average dissolved oxygen concentration above the saturation point for the control and the trials utilizing both concentrations of 0.25% and 0.5% of sodium bicarbonate (BC). Electrolysis did not occur in the distilled water and the oxygen only increased to 90.96% of saturation in the trials utilizing 0.25% BC and 0.3% Sodium Chloride (SC). The oxygenator didn't affect pH or conductivity of the sample water nor did the electrolysis appear to have affect on the nitrite and chlorine tests. Improvements in sampling techniques and cleaning procedures for the sample cell did improve the results, but there still appeared to be some exaggerated readings for these test parameters. Chlorine did appear to increase with electrolysis for the controls as well as the BC and SC produced large amounts of chlorine and the use of salt with electrolysis would be prohibited in fish culture saturations. More research is needed on the "Oxygenator" and effects of electrolysis on the production of chlorine before it is implemented for use in fish hatcheries.