Tag Retention and Stress Levels on Subadult Red Drum (Sciaenops ocellatus)

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This project involved the tagging of red drum (Sciaenops ocellatus) with a non-activated, acoustic tag internally and externally to determine which method would cause the least amount of stress on the fish determined by the RAMP (Reflex Action Mortality Predictor) process. This experiment will benefit fisheries scientists as they use acoustic tags to gain information on fish movements and migration patterns. The experimenter hypothesized that the external acoustic tag will cause the least amount of stress to the fish. For this experiment, five fish were externally tagged with an acoustic tag and five fish were internally tagged with the same type of tag. Three fish were left untagged as a control group. The researcher performed five reaction tests to trigger a reflex response. A positive response was recorded as a zero and a negative response or no response was recorded as a one. All five tests were repeated four times with a five minute time interval between each. After all testing was completed; RAMP was calculated on a scale from zero to one. The lower the RAMP score, the more stressed the fish was. The data supported the experimenter's hypothesis. The RAMP scores for control, externally, and internally tagged fish are as follows; 0.62, 0.59, 0.51, respectively. One way of improvement for the future would be to have a larger specimen group to obtain a more robust data.

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