**Week 11 Likelihood Tests**

Synthesis Statement

An AIC Likelihood test was used to see how three different models fitted the data. There was only one top model: Duration3~Season with a Delta AIC = 0 and AIC Weight of 0.89 with no competing models within 2 DAIC. The AIC approximate for the top model is a single variable GLM while multi-variable GLMs had poor AIC ranking. Duration times are best predicted by season in a single variable GLM.

Table 1. AIC table of GLM models, single and multi-variable. **Δ** = Delta AIC, Wt= model weight, k = number of parameters.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Model** | **AIC** | **Δ** | **Wt** | **k** |
| Duration3~Season | 1003.33 | 0 | 0.89 | 5 |
| Duration3~Season+Trophic.Level | 1009.04 | 5.71 | 0.05 | 8 |
| Duration3~Trophic.Level | 1009.87 | 6.54 | 0.03 | 5 |
| Duration3~Season\*Trophic.Level | 1010.59 | 7.26 | 0.02 | 20 |