**Week 10 Results Statement**

There was no significant effect of the Seasons spring, or summer and trophic levels primary consumer, secondary consumer, or tertiary consumers on duration times at a carcass. There was a significant effect of the intercept on duration time at a carcass, which was SeasonFall+Apex Predator. All duration times at carcass become shorter in the fall season (pval=3.87E-11) due to possible environmental factors such as reduced amount of day light. Duration times of apex predators (Black bear) (pval=3.87E-11) reduce in amount of time that and may be due to increased search of other more abundant resources on the landscape such as acorn mast of oaks prior to entering a torpor state. There was also a significant affect of the winter season (pval=0.055) on duration times and correlated with an increase in duration times at carcass sites, most likely due to a decrease in available resources on the landscape (e.g. hibernating small mammals decrease prey abundance/selection for bobcats).

**Table 1.** Coefficient estimates with corresponding standard errors, t-values, and p-value for

a generalized linear model (GLM) g1, Duration3~Season + Trophic.Level under a Gamma

distribution in program R.

Data from 2019-2020 Virginia Appalachian Carnivore Study subset.

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| --- | --- | --- | --- | --- |
|  | **Estimate** | **Standard Error** | **t-value** | **Pr(>|z|)** |
| **(Intercept)** | 1.31913 | 0.19529 | 6.755 | 3.87E-11 |
| **SeasonSpring** | -0.06471 | 0.19625 | -0.33 | 0.742 |
| **SeasonSummer** | -0.21799 | 0.17633 | -1.236 | 0.217 |
| **SeasonWinter** | -0.32168 | 0.16727 | -1.923 | 0.055 |
| **Trophic.LevelPrimary consumer** | -0.08173 | 0.17317 | -0.472 | 0.637 |
| **Trophic.LevelSecondary consumer** | -0.05818 | 0.20426 | -0.285 | 0.776 |
| **Trophic.LevelTertiary consumer** | -0.04254 | 0.17061 | -0.249 | 0.803 |
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