|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Differences in SUL** | | | | **Rate of SUL increase between treatment groups** | | | | |
| **Week** | **Treatment** | | **T-ratio** | **P-value** | **Contrasts** | **Estimate** | **SE** | **T-ratio** | **P-value** |
| **0** | **Brumated** | | 9.082 | 0.2180 | **Brumated – non-brumated** | -0.133 | 1.33 | -0.100 | 0.9203 |
| **4** | **Brumated** | | 1.238 | 0.2113 | **Brumated – non-brumated** | -0.956 | 1.33 | -0.719 | 0.4857 |
| **9** | **Brumated** | | 1.256 | 0.2530 | **Brumated – non-brumated** | -5.561 | 1.33 | -4.182 | 0.0001\*\*\* |
| **17** | **Brumated** | | 1.148 | 0.0009\*\*\* | **Brumated – non-brumated** | -2.211 | 1.33 | -1.663 | 0.0986 |
| **34** | **Brumated** | | 3.417 | 1.17e-08\*\*\*\* | **Brumated – non-brumated** | -3.707 | 1.33 | -1.238 | 0.2180 |
| **Confidence interval: 0.95** | | **F-statistic:** | | **DF** |  |  | **F-statistic: 16.63** | | **DF 125** |

**Table 2.** Comparison in SUL and rates of increase in SUL between *R. muscosa* brumated for 12 -weeks and non-brumated conspecifics during a 34-week study. Frogs brumated for 12-weeks did not significantly increase in SUL until eight weeks after they had emerged from brumation. From week 17, brumated frogs began growing and increased their SUL significantly compared to past time points. When compared to non-brumated frogs, the rate of change in SUL as indicated by estimated marginal means (eemeans) showed a difference in SUL between brumated and non-brumated frogs only one time point (week 9 = 4 weeks after the winter period had ended for the brumation group (Figure 2)). However, the final two time points measured, (weeks 17 and 34), that although rates of SUL increase were not different between the groups, brumated frogs were still significantly lighter than non-brumated frogs. Week 0 represents the beginning of the brumation period (blue shaded) and week 4 marks the end.