|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | G 2 |  |  | G 2 |
| 3-way Model | df | Small | Medium | Large |  | 4-way model | df | Sum |
| 1. TL, F | 9 | 21.71 | 29.19 | 1.42 |  | TLS,FS | 41 | 241.69 |
| 2. TL, FL | 6 | 13.82 | 9.07 | 0.34 |  | TLS,FSL | 38 | 220.73 |
| Effect of location | 3 | 7.89a | 20.12a |  1.08b |  |  | 3 |  20.96a |
|  |  |  |  |  |  |  |  |  |
| 1. TL, F | 9 | 21.71 | 29.19 | 1.42 |  | TLS,FS | 41 | 241.69 |
| 3. TL, FT | 6 | 17.73 | 23.94 | 1.38 |  | TLS,FST | 38 | 238.47 |
| Effect of time | 3 | 3.98b | 5.25b | 0.04b |  |  |  3 | 3.22b |
|  |  |  |  |  |  |  |  |  |
| 3. TL, FT | 6 | 17.73 | 23.94 | 1.38 |  | TLS,FST | 38 | 238.47 |
| 4. TL, FT, FL | 3 | 9.72 | 3.63 | 0.29 |  | TLS,FST,FSL | 35 | 217.01 |
| Effect of location(given the effect of time) | 3 | 8.01a | 20.31a | 1.09b |  |  | 3 | 21.46a |
|  |  |  |  |  |  |  |  |  |
| 2. TL, FL | 6 | 13.82 | 9.07 | 0.34 |  | TLS,FSL | 38 | 220.73 |
| 4. TL, FT, FL | 3 | 9.72 | 3.63 | 0.29 |  | TLS,FST,FSL | 35 | 217.01 |
| Effect of time(given the effect of location) | 3 | 4.1b | 5.44b |  0.05b |  |  | 3 | 3.72b |
|  |  |  |  |  |  |  |  |  |
| 4. TL, FT, FL | 3 | 9.72 | 3.63 | 0.29 |  | TLS,FST,FSL | 35 | 217.01 |
| 5. TLF | 0 | 0 | 0 | 0 |  | TLSF | 0 | 0 |
|  |  3 | 9.72a | 3.63b | 0.29b |  |  | 35 | 217.01a |

**Supplemental file Table 1: Log-linear analysis of the effect of location and time on fate of *Orbicella annularis* colonies of the three size classes. F= Fate, S=Stage, T=Time, L=Location, a=p<0.05, bp>0.05, G-squared = goodness of fit, df= degrees of freedom.**