A graph of different colored squares

Description automatically generated

**Figure S4:** Detritivore biomass (mg) and abundance per leaf pack (a-b) and per gram of ash-free dry mass (AFDM) of leaf litter remaining in corresponding coarse-mesh litterbags (c-d). We collected invertebrate samples for this analysis from *Rhododendron* leaf bags at the end of the YR1 October-December, November-January, May-July, and July-September deployments (specific collection dates: 11 December 2017, 5 January 2018, 5 July 2018, and 31 August 2018). Note that the y-axes of panels c and d are on a loge-scale.

**Table S10.** Results of lmer models to test for significant differences among months for shredder abundance/biomass per leaf pack. All models included a random effect for stream.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Model** | ***n*** | **Pairwise comparisons (from *emmeans*)** | | | |
| lmer(detritivore biomass (mg) per leaf pack ~ month + (1|stream))  \*\*Figure S4a | 120 | ***Months*** | ***estimate*** | ***SE*** | ***p*** |
| Jan-Jul | -31.28 | 8.65 | 0.0025 |
| Jan-Sep | -31.38 | 8.31 | 0.0015 |
| Jan-Dec | -7.84 | 8.38 | 0.7859 |
| Jul-Sep | -0.10 | 8.72 | 1.0000 |
| Jul-Dec | 23.44 | 8.83 | 0.0444 |
| Sep-Dec | 23.54 | 8.44 | 0.0314 |
| lmer(detritivore abundance per leaf pack ~  month + (1|stream))  \*\*Figure S4b | 120 | ***Months*** | ***estimate*** | ***SE*** | ***p*** |
| Jan-Jul | -25.08 | 2.36 | <0.0001 |
| Jan-Sep | -19.79 | 2.27 | <0.0001 |
| Jan-Dec | -1.48 | 2.29 | 0.9171 |
| Jul-Sep | 5.29 | 2.38 | 0.1238 |
| Jul-Dec | 23.6 | 2.41 | <0.0001 |
| Sep-Dec | 18.32 | 2.3 | <0.0001 |
|  |  | ***Months*** | ***estimate*** | ***SE*** | ***p*** |
|  |  | Jan-Jul | -2.733 | 0.426 | <0.0001 |
| lmer( loge (detritivore biomass (mg) per gAFDM ~ month + (1|stream))  \*\*Figure S4c | 117 | Jan-Sep | -3.154 | 0.408 | <0.0001 |
| Dec-Jan | 0.554 | 0.412 | 0.5379 |
| Jul-Sep | -0.422 | 0.431 | 0.7620 |
| Dec-Jul | -2.179 | 0.439 | <0.0001 |
| Dec-Sep | -2.601 | 0.419 | <0.0001 |
| lmer( loge (detritivore abundance per gAFDM) ~ month + (1|stream))  \*\*Figure S4d | 117 | ***Months*** | ***estimate*** | ***SE*** | ***p*** |
| Jan-Jul | -2.327 | 0.214 | <0.0001 |
| Jan-Sep | -2.521 | 0.205 | <0.0001 |
| Dec-Jan | 0.394 | 0.207 | 0.2337 |
| Jul-Sep | -0.194 | 0.217 | 0.8067 |
| Dec-Jul | -1.932 | 0.220 | <0.0001 |
| Dec-Sep | -2.127 | 0.211 | <0.0001 |