|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Predator | Resource level | *Aedes triseriatus ;Culex pipiens* | *Aedes triseriatus ;Culex pipiens* | *Aedes triseriatus ;Culex pipiens* |
| Present (P) | Low: 2.5 | 0; 50 | 50; 50 | 50; 0 |
| Medium: 5.0 | 0; 50 | 50; 50 | 50; 0 |
| High: 10.0 | 0; 50 | 50; 50 | 50; 0 |
| Not Present (NP) | Low: 2.5 | 0; 50 | 50; 50 | 50; 0 |
| Medium: 5.0 | 0; 50 | 50; 50 | 50; 0 |
| High: 10.0 | 0; 50 | 50; 50 | 50; 0 |

Table 1. Species, predator, and resources level distribution throughout containters.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **DF** | **Type III SS** | **Mean Square** | **F Value** | **Pr > F** |
| **comp** | 1 | 2.250000 | 2.250000 | 0.05 | 0.8176 |
| **predator** | 1 | 1190.250000 | 1190.250000 | 28.78 | <.0001 |
| **comp\*predator** | 1 | 156.250000 | 156.250000 | 3.78 | 0.0638 |
| **Resource** | 2 | 896.166667 | 448.083333 | 10.83 | 0.0004 |
| **comp\*Resource** | 2 | 128.166667 | 64.083333 | 1.55 | 0.2329 |
| **predator\*Resource** | 2 | 490.500000 | 245.250000 | 5.93 | 0.0081 |
| **comp\*predator\*Resource** | 2 | 210.500000 | 105.250000 | 2.54 | 0.0995 |

Table 2a. Significance levels for *Aedes triseriatus* where the shaded rows are the significant ones ((Pr>F) < .05).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **DF** | **Type III SS** | **Mean Square** | **F Value** | **Pr > F** |
| **comp** | 1 | 1225.000000 | 1225.000000 | 184.52 | <.0001 |
| **predator** | 1 | 11.111111 | 11.111111 | 1.67 | 0.2081 |
| **comp\*predator** | 1 | 44.444444 | 44.444444 | 6.69 | 0.0162 |
| **Resource** | 2 | 969.500000 | 484.750000 | 73.02 | <.0001 |
| **comp\*Resource** | 2 | 588.166667 | 294.083333 | 44.30 | <.0001 |
| **predator\*Resource** | 2 | 31.722222 | 15.861111 | 2.39 | 0.1132 |
| **comp\*predator\*Resource** | 2 | 107.722222 | 53.861111 | 8.11 | 0.0020 |

Table 2b. Significance levels for *Culex pipiens* where the shaded rows are the significant ones ((Pr>F) < .05)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Bon Grouping** | **Mean** | **N** | **Resource** |
| *Aedes triseriatus* | A | 16.5 | 12 | H |
|  |  |  |  |
| A | 11.417 | 12 | M |
|  |  |  |  |
| B | 4.333 | 12 | L |
| *Culex pipiens* | A | 13.75 | 12 | H |
|  |  |  |  |
| B | 5.5 | 12 | M |
|  |  |  |  |
| C | 1.25 | 12 | L |

Table 3a. Bonferroni analysis for effect of resource level on mean of Aedes and Culex. Different letters signify significance between groups. The letters for the Aedes group and the Culex group should be considered separately.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Bon Grouping** | **Mean** | **N** | **Predator** |
| *Aedes triseriatus* | A | 16.5 | 18 | NP |
|  |  |  |  |
| B | 5 | 18 | P |
| *Culex pipiens* | C | 7.3889 | 18 | NP |
|  |  |  |  |
| C | 6.2778 | 18 | P |

Table 3b. Bonferroni analysis for effect of predation level on means of Aedes and Culex. Different letters signify significance between groups. The letters for the Aedes group and the Culex group should be considered separately.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Source | DF | Can Coef 1 | Can Coef 2 | Pillai’s Trace | F Value | Pr > F |
| Predator-Aedes | 1 | 1.7916 | X | .6459 | 18.78 | 0.001 |
| Predator-Culex | 1 | -.88707 | X | .6459 |  | .0137 |
| Resource-Aedes | 2 | 1.8614 | -1.3109 | 1.357 | 21.58 | 0.0001 |
| Resource-Culex | 2 | 1.8312 | 1.4772 | 1.357 |  | .0002 |
| Predator\*Resource- A | 2 | .6502 | 2.1819 | 1.1032 | 3.76 | 0.0539 |
| Predator\*Resource-C | 2 | 2.3526 | -.02644 | 1.1032 |  | .0007 |

Table 4. Significance levels, standardized canonical coefficients, and Pillai’s trace for *Aedes triseriatus* and *Culex pipiens* where the shaded rows are the significant((Pr>F) < .05)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Contrast | DF | Can. Coef | Pillai's Trace | F Value | Pr > F |
| High resource: P vs NP-Aedes | 1 | 0.5447 | 0.7609 | 9.43 | 0.0097 |
| High resource: P vs NP-Culex | 1 | -2.0418 | 0.7609 | 36 | < .0001 |
| Medium resource: P vs NP-Aedes | 1 | 2.2235 | 0.6433 | 16.76 | 0.0015 |
| Medium resource: P vs NP-Culex | 1 | 1.1177 | 0.6433 | 1 | 0.337 |
| Low resource: P vs NP-Aedes | 1 | 2.2767 | 0.0104 | 0.12 | 0.7389 |
| Low resource: P vs NP-Culex | 1 | 0.6465 | 0.0104 | 0 | 1 |

Table 5. Contrast One: Significance levels, standardized canonical coefficients, and Pillai’s trace for *Aedes triseriatus* and *Culex pipiens* where the shaded rows are significant ((Pr>F) < .05)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Contrast | DF | Can. Coef. | Pillai’s Trace | F Value | Pr > F |
| No predator low resources to high resources-Aedes | 1 | 2.2465 | .7598 | 31.05 | 0.0001 |
| No predator low resources to high resources-Culex | 1 | 1.0051 | .7598 | 1 | .3370 |
| With predator low resources to high resources-Aedes | 1 | 1.3158 | .8597 | 8.08 | 0.0148 |
| With predator low resources to high resources-Culex | 1 | 2.2198 | .8597 | 49 | <.0001 |

Table 6. Contrast Two: Significance levels, standardized canonical coefficients, and Pillai’s trace for *Aedes triseriatus* and *Culex pipiens* where the shaded rows are significant ((Pr>F) < .05)



Figure 1. Mean number of adult Aedes and Culex under different treatments.

Figure 2. Number of adult species of Aedes and Culex from high resources with no predators to high resources with a predator. HNP is for high resource no predator, and HP is for high resource with predator.

Figure 3. Number of adult species of Aedes and Culex from medium resources with no predators to medium resources with a predator. MNP is for medium resource no predator, MP is for Medium resource with a predator.

Figure 4. Number of adult species of Aedes and Culex from low resources with no predators to low resources with a predator. LNP is for low resource no predator, LP is for low resource with a predator.

Figure 5. Number of adults from each species under the conditions of either predator (P) or no predator (NP) from high to low resources.

Figure 6. Linearizing the general trend of Culex and Aedes adults from a high resource level to the low resource level with predation.

Figure 7. Linearizing the general trend of Culex and Aedes adults from a high resource level to the low resource level without predation.

Figure 8. Linearizing the general trend of Culex and Aedes adults from a high resource level to the low resource level with and without predation.