Table 1: Model Comparison across Multiple Datasets

AICc Model Selection Results

| species | Modnames | K | AICc | Delta\_AICc | ModelLik | AICcWt | LL | Cum.Wt |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Colpidium striatum** | **y ~ temp + temp^2** | **4** | **6.67** | **0.00** | **1.000** | **1.00** | **2.33** | **1.00** |
| Colpidium striatum | y ~ temp | 3 | 22.07 | 15.40 | 0.000 | 0.00 | -7.11 | 1.00 |
| **Dexiostoma campylum** | **y ~ temp** | **3** | **-7.37** | **0.00** | **1.000** | **0.62** | **7.61** | **0.62** |
| Dexiostoma campylum | y ~ temp + temp^2 | 4 | -6.42 | 0.95 | 0.622 | 0.38 | 8.88 | 1.00 |
| **Loxocephalus sp.** | **y ~ temp** | **3** | **-14.57** | **0.00** | **1.000** | **0.84** | **11.21** | **0.84** |
| Loxocephalus sp. | y ~ temp + temp^2 | 4 | -11.25 | 3.32 | 0.191 | 0.16 | 11.29 | 1.00 |
| **Paramecium caudatum** | **y ~ temp** | **3** | **-7.82** | **0.00** | **1.000** | **0.84** | **7.91** | **0.84** |
| Paramecium caudatum | y ~ temp + temp^2 | 4 | -4.54 | 3.28 | 0.194 | 0.16 | 8.09 | 1.00 |
| **Spirostomum teres** | **y ~ temp** | **3** | **-3.84** | **0.00** | **1.000** | **0.56** | **6.01** | **0.56** |
| Spirostomum teres | y ~ temp + temp^2 | 4 | -3.33 | 0.50 | 0.777 | 0.44 | 7.67 | 1.00 |
| **Tetrahymena thermophila** | **y ~ temp** | **3** | **-10.77** | **0.00** | **1.000** | **0.84** | **9.31** | **0.84** |
| Tetrahymena thermophila | y ~ temp + temp^2 | 4 | -7.45 | 3.32 | 0.190 | 0.16 | 9.39 | 1.00 |