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** | **-16.14** | **0.00** | **1.000** | **1.00** | **13.74** | **1.00** |
| Colpidium striatum | y ~ temp | 3 | 4.01 | 20.15 | 0.000 | 0.00 | 1.92 | 1.00 |
| **Dexiostoma campylum** | **y ~ temp** | **3** | **17.50** | **0.00** | **1.000** | **0.73** | **-4.89** | **0.73** |
| Dexiostoma campylum | y ~ temp + temp^2 | 4 | 19.47 | 1.97 | 0.374 | 0.27 | -4.19 | 1.00 |
| **Loxocephalus sp.** | **y ~ temp** | **3** | **10.94** | **0.00** | **1.000** | **0.79** | **-1.54** | **0.79** |
| Loxocephalus sp. | y ~ temp + temp^2 | 4 | 13.63 | 2.70 | 0.260 | 0.21 | -1.15 | 1.00 |
| **Paramecium caudatum** | **y ~ temp** | **3** | **-7.49** | **0.00** | **1.000** | **0.84** | **7.67** | **0.84** |
| Paramecium caudatum | y ~ temp + temp^2 | 4 | -4.10 | 3.39 | 0.184 | 0.16 | 7.72 | 1.00 |
| Spirostomum teres | y ~ temp + temp^2 | 4 | 4.18 | 0.00 | 1.000 | 0.51 | 3.91 | 0.51 |
| **Spirostomum teres** | **y ~ temp** | **3** | **4.22** | **0.04** | **0.979** | **0.49** | **1.98** | **1.00** |
| **Tetrahymena thermophila** | **y ~ temp** | **3** | **9.77** | **0.00** | **1.000** | **0.79** | **-0.96** | **0.79** |
| Tetrahymena thermophila | y ~ temp + temp^2 | 4 | 12.37 | 2.60 | 0.272 | 0.21 | -0.52 | 1.00 |