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** | **7** | **-1,163.76** | **0.00** | **1.000** | **0.51** | **589.05** | **0.51** |
| Colpidium striatum | y ~ temp + temp^2 | 9 | -1,163.67 | 0.09 | 0.957 | 0.49 | 591.10 | 1.00 |
| Dexiostoma campylum | y ~ temp + temp^2 | 9 | -847.43 | 0.00 | 1.000 | 0.53 | 432.98 | 0.53 |
| **Dexiostoma campylum** | **y ~ temp** | **7** | **-847.22** | **0.21** | **0.901** | **0.47** | **430.78** | **1.00** |
| **Loxocephalus sp.** | **y ~ temp + temp^2** | **9** | **-1,306.40** | **0.00** | **1.000** | **0.89** | **662.47** | **0.89** |
| Loxocephalus sp. | y ~ temp | 7 | -1,302.32 | 4.08 | 0.130 | 0.11 | 658.33 | 1.00 |
| **Paramecium caudatum** | **y ~ temp** | **7** | **-979.47** | **0.00** | **1.000** | **0.82** | **496.90** | **0.82** |
| Paramecium caudatum | y ~ temp + temp^2 | 9 | -976.41 | 3.06 | 0.216 | 0.18 | 497.47 | 1.00 |
| Spirostomum teres | y ~ temp + temp^2 | 9 | -1,053.90 | 0.00 | 1.000 | 0.51 | 536.22 | 0.51 |
| **Spirostomum teres** | **y ~ temp** | **7** | **-1,053.80** | **0.10** | **0.952** | **0.49** | **534.07** | **1.00** |
| **Tetrahymena thermophila** | **y ~ temp + temp^2** | **9** | **-1,182.45** | **0.00** | **1.000** | **0.93** | **600.49** | **0.93** |
| Tetrahymena thermophila | y ~ temp | 7 | -1,177.17 | 5.27 | 0.072 | 0.07 | 595.75 | 1.00 |