**Supplemental Table E.** Model-averaged coefficients and relative variable importance of generalized linear mixed-effects models (GLMMs) relating the hatching success, death, and unviable eggs probabilities of *Podocnemis expansa* to principal components that summarized the environmental variation of precipitation and river level in Araguaia National Park, Pium, Tocantins, Brazil from 1985 to 2009.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Hatching success** | | | | | |
| **Predictor variable** | **Estimate** | **SE** | ***Z*** | ***P*** | **Relative variable importance§** |
| **PC3** | **0.000036** | **0.000017** | **2.046** | **0.0408** | **0.69** |
| PC1 | 0.000031 | 0.000017 | 1.763 | 0.0778 | 0.58 |
| PC6 | 0.000015 | 0.000018 | 0.815 | 0.4152 | 0.31 |
| PC4 | -0.000012 | 0.000018 | 0.691 | 0.4893 | 0.29 |
| PC5 | -0.000007 | 0.000018 | 0.395 | 0.6926 | 0.26 |
| PC2 | 0.000003 | 0.000018 | 0.151 | 0.8799 | 0.24 |
| PC7 | 0.000003 | 0.000018 | 0.141 | 0.8882 | 0.24 |
| **Unviable eggs** | | | | | |
| **PC3** | **-0.000042** | **0.000019** | **2.179** | **0.0294** | **0.74** |
| **PC1** | **-0.000038** | **0.000019** | **1.985** | **0.0471** | **0.67** |
| PC6 | -0.000017 | 0.000019 | 0.898 | 0.3692 | 0.32 |
| PC4 | 0.000010 | 0.000020 | 0.527 | 0.5985 | 0.27 |
| PC5 | 0.000009 | 0.000020 | 0.479 | 0.632 | 0.26 |
| PC2 | -0.000001 | 0.000020 | 0.048 | 0.9613 | 0.24 |
| PC7 | 0.000001 | 0.000020 | 0.037 | 0.9705 | 0.24 |
| **Death probability** | | | | | |
| PC4 | 0.000014 | 0.000009 | 1.616 | 0.106 | 0.53 |
| PC2 | -0.000013 | 0.000009 | 1.491 | 0.136 | 0.48 |
| PC7 | -0.000012 | 0.000009 | 1.321 | 0.187 | 0.43 |
| PC3 | -0.000010 | 0.000009 | 1.148 | 0.251 | 0.38 |
| PC6 | -0.000003 | 0.000009 | 0.32 | 0.749 | 0.25 |
| PC1 | -0.000001 | 0.000009 | 0.162 | 0.872 | 0.24 |
| PC5 | -0.000001 | 0.000009 | 0.15 | 0.881 | 0.24 |

§ The relative variable importance is the sum of Akaike weights over all models with all possible combinations of the variables.