Table 1. intercept models

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Parameters** | **Estimate** | **95% CI** | **Pred. Interval** | ***t*** | ***p*-value** | **n effect sizes** |
| *SMD* |  |  |  |  |  |  |
| Mammals | 0.09 | -0.25, 0.43 | -1.07, 1.25 | 0.52 | 0.60 | 700 |
| Birds | -0.09 | -0.33, 0.14 | -1.84, 1.66 | -0.77 | 0.44 | 506 |
| Reptilia | 0.06 | -0.11, 0.22 | -0.52, 0.63 | 0.67 | 0.51 | 95 |
| Fish | -0.02 | -0.38, 0.33 | -1.05, 1.0 | -0.13 | 0.89 | 502 |
| Invertebrates | 0.20 | -0.08, 0.48 | -1.76, 2.16 | 1.38 | 0.17 | 468 |
| *lnCVR* |  |  |  |  |  |  |
| Mammals | 0.07 | -0.20, 0.33 | -0.65, 0.78 | 0.50 | 0.62 | 700 |
| Birds | -0.16 | -0.67, 0.34 | -1.95, 1.62 | -0.64 | 0.52 | 506 |
| Reptilia | 0.02 | -0.07, 0.12 | -0.08, 0.13 | 0.51 | 0.61 | 95 |
| Fish | -0.02 | -0.08, 0.04 | -0.69, 0.64 | -0.72 | 0.47 | 502 |
| Invertebrates | -0.04 | -0.12, 0.04 | -0.71, 0.63 | -0.95 | 0.34 | 468 |

Table 2. MLMR multilevel random effects model (personality traits)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Parameters** | **SMD**  **Est.** | **SMD 95%CI** | **SMD**  ***t* score** | **lnCVR**  **Est.** | **lnCVR 95%CI** | **lnCVR**  ***t* score** |
| *Mammals* | | | | | | |
| Activity | -0.16 | -0.53, 0.22 | -0.82 | 0.12 | -0.18, 0.41 | 0.76 |
| Aggression | 0.11 | -0.25, 0.47 | 0.59 | 0.11 | -0.19, 0.41 | 0.73 |
| Boldness | 0.16 | -0.17, 0.49 | 0.96 | 0.05 | -0.23, 0.32 | 0.34 |
| Exploration | 0.04 | -0.30, 0.39 | 0.26 | 0.07 | -0.22, 0.35 | 0.47 |
| Sociality | 0.09 | -0.28, 0.45 | 0.46 | 0.05 | -0.25, 0.35 | 0.33 |
| *Birds* | | | | | | |
| Activity | -0.08 | -0.37, 0.21 | -0.56 | 0.02 | -0.26, 0.31 | 0.17 |
| Aggression | -0.12 | -0.41, 0.16 | -0.85 | -0.09 | -0.41, 0.23 | -0.57 |
| Boldness | -0.12 | -0.38, 0.14 | -0.92 | 0.02 | -0.20, 0.25 | 0.21 |
| **Exploration** | 0.10 | -0.17, 0.37 | 0.73 | **-0.31** | **-0.56, -0.05** | **-2.38** |
| **Sociality** | **-0.48** | **-0.93, 0.03** | **-2.07** | 0.10 | -0.39, 0.58 | 0.39 |
| *Reptilia* | | | | | | |
| Activity | -0.04 | -0.45, 0.36 | -0.22 | -0.10 | -0.38, 0.18 | -0.69 |
| **Aggression** | -0.12 | -0.42, 0.19 | -0.76 | **0.16** | **-0.01, 0.32** | **1.89** |
| Boldness | 0.08 | -0.15, 0.31 | 0.68 | 0.07 | -0.07, 0.22 | 1.00 |
| **Exploration** | **0.25** | **0.03, 0.47** | **2.21** | -0.12 | -0.28, 0.04 | -1.52 |
| Sociality | -0.01 | -0.55, 0.54 | -0.03 | 0.03 | -0.53, 0.60 | 0.11 |
| *Fish* | | | | | | |
| Activity | -0.12 | -0.58, 0.35 | -0.50 | -0.02 | -0.15, 0.11 | -0.34 |
| **Aggression** | -0.04 | -0.48, 0.41 | -0.16 | **-0.13** | **-0.25, -0.01** | **-2.08** |
| Boldness | -0.07 | -0.52, 0.37 | -0.32 | 0.00 | -0.10, 0.09 | -0.09 |
| Exploration | -0.01 | -0.47, 0.45 | -0.03 | -0.03 | -0.16, 0.10 | -0.50 |
| **Sociality** | -0.25 | -0.74, 0.24 | -1.01 | **0.17** | **-0.01, 0.35** | **1.91** |
| *Invertebrates* | | | | | | |
| **Activity** | 0.04 | -0.27, 0.35 | 0.25 | **-0.14** | **-0.25, -0.03** | **-2.44** |
| **Aggression** | **0.46** | **0.07, 0.85** | **2.31** | -0.05 | -0.24, 0.15 | -0.50 |
| Boldness | 0.23 | -0.07, 0.54 | 1.48 | 0.01 | -0.09, 0.12 | 0.23 |
| Exploration | 0.08 | -0.26, 0.42 | 0.45 | 0.10 | -0.07, 0.27 | 1.17 |
| Sociality | 0.27 | -0.17, 0.72 | 1.22 | 0.14 | -0.17, 0.46 | 0.89 |

Table 3. MLMR multilevel random effects model (personality traits and SSD, reduced models)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Parameters** | **SMD**  **Est.** | **SMD 95%CI** | **SMD**  ***t* score** | **lnCVR**  **Est.** | **lnCVR**  **95%CI** | **lnCVR**  ***t* score** |
| *Mammals* | | | | | | |
| **Activity** | **0.27** | **0.00, 0.54** | **1.95** | 0.07 | -0.21, 0.35 | 0.48 |
| Aggression | 0.13 | -0.08, 0.35 | 1.25 | 0.10 | -0.17, 0.38 | 0.73 |
| Boldness | 0.12 | -0.07, 0.32 | 1.26 | 0.05 | -0.22, 0.32 | 0.35 |
| Exploration | 0.01 | -0.18, 0.19 | 0.08 | 0.03 | -0.23, 0.30 | 0.25 |
| **SSD** | **-1.98** | **-2.89, -1.07** | **-4.26** | 0.25 | -0.40, 0.90 | 0.76 |
| **Aggression x SSD** | **3.49** | **2.12, 4.86** | **4.99** | -0.12 | -1.13, 0.89 | -0.23 |
| **Boldness x SSD** | **1.94** | **0.95, 2.92** | **3.86** | -0.20 | -0.92, 0.53 | -0.53 |
| **Exploration x SSD** | **1.94** | **0.94, 2.94** | **3.82** | -0.03 | -0.76, 0.70 | -0.08 |
| *Birds* | | | | | | |
| Intercept (Boldness) | -0.22 | -0.83, 0.39 | -0.71 | 0.03 | -0.05, 0.11 | 0.80 |
| SSD | -0.18 | -1.35, 0.98 | -0.31 | 0.08 | -0.22, 0.37 | 0.51 |
| *Fish* |  |  |  |  |  |  |
| Aggression | -0.12 | -0.66, 0.42 | -0.44 | -0.11 | -0.25, 0.03 | -1.58 |
| Boldness | -0.04 | -0.58, 0.51 | -0.13 | -0.02 | -0.14, 0.10 | -0.27 |
| SSD | 0.26 | -0.72, 1.24 | 0.52 | -0.09 | -0.93, 0.54 | -0.52 |
| Boldness x SSD | -0.37 | -1.43, 0.69 | -0.69 | 0.09 | -0.75, 0.93 | 0.20 |
| *Invertebrates* |  |  |  |  |  |  |
| **Activity** | 0.00 | -0.37, 0.38 | 0.02 | **-0.16** | **-0.29, 0.02** | **-2.21** |
| Boldness | 0.28 | -0.10, 0.66 | 1.46 | 0.04 | -0.09, 0.17 | 0.58 |
| SSD | -0.85 | -2.02, 0.32 | -1.43 | 0.03 | -0.58, 0.63 | 0.10 |
| **Boldness x SSD** | **1.07** | **0.25, 1.90** | **2.56** | 0.18 | -0.49, 0.86 | 0.53 |