|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Birds** | | | | | |
| ***SMD*** | | | | | |
| Q=2804.93 | P<0.0001 |  | | | |
| *Variance* | Estimate | SQRT | I2 | 95% CIs | n |
| Study ID | 0.59 | 0.77 | 0.73 | 0.63, 0.80 | 50 |
| Species Name | 0 | 0.01 | 0 | 0, 0 | 106 |
| Obs | 0.16 | 0.40 |  |  | 483 |
| Phylo |  |  | 0 | 0, 0 |  |
| Total |  |  | 0.93 | 0.90, 0.95 |  |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
|  | -0.14 | -0.36, 0.09 | -1.17 | -1.82, 1.57 | 0.24 |
| ***lnCVR*** |  |  |  |  |  |
| Q=3820.60 | P<0.0001 |  |  |  |  |
| *Variance* | Estimate | SQRT | I2 | 95% CIs | n |
| Study ID | 0.01 | 0.12 | 0.02 | 0.01, 0.02 | 50 |
| Species Name | 0.36 | 0.60 | 0.44 | 0.37, 0.51 | 106 |
| Obs | 0.40 | 0.63 |  |  | 483 |
| Phylo |  |  | 0.47 | 0.39, 0.54 |  |
| Total |  |  | 0.94 | 0.94, 0.95 |  |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
|  | -0.14 | -0.65, 0.37 | -0.56 | -1.94, 1.64 | 0.58 |
| **Fish** | | | | | |
| ***SMD*** | | | | | |
| Q=1385.84 | P<0.0001 |  | | | |
| *Variance* | Estimate | SQRT | I2 | 95% CIs | n |
| Study ID | 0.04 | 0.21 | 0.14 | 0.09, 0.19 | 44 |
| Species Name | 0.04 | 0.20 | 0.13 | 0.07, 0.20 | 22 |
| Obs | 0.13 | 0.36 |  |  | 493 |
| Phylo |  |  | 0.19 | 0.11, 0.29 |  |
| Total |  |  | 0.70 | 0.66, 0.73 |  |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
|  | -0.04 | -0.35, 0.28 | -0.24 | -1.00, 0.93 | 0.81 |
| ***lnCVR*** |  |  |  |  |  |
| Q=924.06 | P<0.0001 |  |  |  |  |
| *Variance* | Estimate | SQRT | I2 | 95% CIs | n |
| Study ID | 0.01 | 0.09 | 0.04 | 0.03, 0.06 | 44 |
| Species Name | 0.00 | 0.00 | 0 | 0, 0 | 22 |
| Obs | 0.08 | 0.29 |  |  | 493 |
| Phylo |  |  | 0 | 0, 0 |  |
| Total |  |  | 0.49 | 0.46, 0.52 |  |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
|  | -0.04 | -0.09, 0.01 | -1.44 | -0.64, 0.56 | 0.15 |
| **Inverts** | | | | | |
| ***SMD*** | | | | | |
| Q=2678.23 | P<0.0001 |  | | | |
| *Variance* | Estimate | SQRT | I2 | 95% CIs | n |
| Study ID | 0.90 | 0.95 | 0.70 | 0.60, 0.79 | 37 |
| Species Name | 0 | 0 | 0 | 0, 0 | 36 |
| Obs | 0.31 | 0.56 |  |  | 422 |
| Phylo |  |  | 0 | 0, 0 |  |
| Total |  |  | 0.96 | 0.94, 0.97 |  |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
|  | 0.30 | -0.02, 0.62 | 1.82 | -1.89, 2.48 | 0.07 |
| ***lnCVR*** |  |  |  |  |  |
| Q=1459.70 | P<0.0001 |  |  |  |  |
| *Variance* | Estimate | SQRT | I2 | 95% CIs | n |
| Study ID | 0.04 | 0.20 | 0.20 | 0.13, 0.28 | 37 |
| Species Name | 0 | 0.06 | 0.02 | 0.01, 0.02 | 36 |
| Obs | 0.11 | 0.33 |  |  | 422 |
| Phylo |  |  | 0.02 | 0.01, 0.03 |  |
| Total |  |  | 0.76 | 0.74, 0.79 |  |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
|  | 0.00 | -0.11, 0.10 | -0.04 | -0.77, 0.76 | 0.97 |
| **Mammals** | | | | | |
| ***SMD*** | | | | | |
| Q=2218.15 | P<0.0001 |  | | | |
| *Variance* | Estimate | SQRT | I2 | 95% CIs | n |
| Study ID | 0.10 | 0.31 | 0.23 | 0.16, 0.29 | 61 |
| Species Name | 0.08 | 0.29 | 0.19 | 0.13, 0.26 | 45 |
| Obs | 0.16 | 0.39 |  |  | 674 |
| Phylo |  |  | 0.24 | 0.16, 0.33 |  |
| Total |  |  | 0.78 | 0.75, 0.81 |  |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
|  | 0.08 | -0.28, 0.45 | 0.44 | -1.10, 1.27 | 0.66 |
| ***lnCVR*** |  |  |  |  |  |
| Q=1074.96 | P<0.0001 |  |  |  |  |
| *Variance* | Estimate | SQRT | I2 | 95% CIs | n |
| Study ID | 0.03 | 0.18 | 0.17 | 0.12, 0.22 | 61 |
| Species Name | 0.05 | 0.22 | 0.25 | 0.18, 0.34 | 45 |
| Obs | 0.03 | 0.19 |  |  | 674 |
| Phylo |  |  | 0.43 | 0.31, 0.53 |  |
| Total |  |  | 0.60 | 0.55, 0.65 |  |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
|  | 0.07 | -0.20, 0.34 | 0.51 | -0.64, 0.79 | 0.61 |
| **Reptiles / Amphibians** | | | | | |
| ***SMD*** | | | | | |
| Q=163.37 | P<0.0001 |  | | | |
| *Variance* | Estimate | SQRT | I2 | 95% CIs | n |
| Study ID | 0.03 | 0.17 | 0.15 | 0.06, 0.28 | 11 |
| Species Name | 0 | 0.01 | 0 | 0, 0 | 10 |
| Obs | 0.05 | 0.23 |  |  | 95 |
| Phylo |  |  | 0 | 0, 0 |  |
| Total |  |  | 0.45 | 0.36, 0.54 |  |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
|  | 0.07 | -0.08, 0.22 | 0.94 | -0.52, 0.67 | 0.35 |
| ***lnCVR*** |  |  |  |  |  |
| Q=77.72 | P=0.89 |  |  |  |  |
| *Variance* | Estimate | SQRT | I2 | 95% CIs | N |
| Study ID | 0 | 0.02 | 0 | 0, 0 | 11 |
| Species Name | 0 | 0.02 | 0 | 0, 0.01 | 10 |
| Obs | 0 | 0 |  |  | 95 |
| Phylo |  |  | 0.65 | 0.34, 0.87 |  |
| Total |  |  | 0.01 | 0.00, 0.01 |  |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
|  | 0.05 | -0.04, 0.14 | 1.13 | -0.06, 0.15 | 0.26 |

S2 Random Effects Multilevel Models – Personality traits and taxonomic group.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Birds** | | | | | |
| ***SMD*** | | | | | |
| QE=2670.89 | P<0.0001 |  | | | |
| F=3.76 | P=0.002 |  | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.64 | 0.80 | 50 |
| Species Name | 0 | 0 | 106 |
| Obs | 0.14 | 0.38 | 483 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | -0.14 | -0.43, 0.15 | -0.93 | -1.90, 1.62 | 0.35 |
| Aggression | -0.14 | -0.43, 0.14 | -0.97 | -1.90, 1.62 | 0.33 |
| Boldness | -0.19 | -0.44, 0.06 | -1.50 | -1.95, 1.56 | 0.13 |
| Exploration | 0.09 | -0.18, 0.36 | 0.66 | -1.67, 1.85 | 0.51 |
| **Sociality** | **-0.68** | **-1.16, -0.21** | **-2.81** | **-2.48, 1.12** | **0.005** |
| ***lnCVR*** |  |  |  |  |  |
| QE=3711.80 | P<0.0001 |  |  |  |  |
| F=1.17 | P=0.32 |  |  |  |  |
|  |  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.31 | 0.55 | 50 |
| Species Name | 0 | 0 | 106 |
| Obs | 0.39 | 0.62 | 483 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | 0.05 | -0.24, 0.34 | 0.36 | -1.61, 1.71 | 0.72 |
| Aggression | -0.07 | -0.39, 0.25 | -0.41 | -1.74, 1.60 | 0.68 |
| Boldness | -0.01 | -0.23, 0.22 | -0.04 | -1.66, 1.65 | 0.97 |
| Exploration | -0.25 | -0.50, 0.01 | -1.92 | -1.91, 1.41 | 0.06 |
| Sociality | 0.14 | -0.38, 0.66 | 0.53 | -1.58, 1.86 | 0.60 |
| **Fish** | | | | | |
| ***SMD*** | | | | | |
| QE=1347.79 | P<0.0001 |  | | | |
| F=1.80 | P=0.11 |  | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.03 | 0.17 | 44 |
| Species Name | 0.10 | 0.32 | 22 |
| Obs | 0.13 | 0.37 | 493 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | -0.16 | -0.65, 0.33 | -0.63 | -1.28, 0.97 | 0.53 |
| Aggression | -0.05 | -0.52, 0.42 | -0.22 | -1.17, 1.06 | 0.83 |
| Boldness | -0.16 | -0.63, 0.32 | -0.65 | -1.27, 0.96 | 0.52 |
| Exploration | -0.05 | -0.54, 0.44 | -0.20 | -1.17, 1.07 | 0.84 |
| Sociality | -0.40 | -1.53, 0.73 | -1.55 | -1.53, 0.73 | 0.12 |
| ***lnCVR*** |  |  |  |  |  |
| QE=915.16 | P<0.0001 |  |  |  |  |
| F=1.14 | P=0.34 |  |  |  |  |
|  |  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.01 | 0.10 | 44 |
| Species Name | 0 | 0 | 22 |
| Obs | 0.08 | 0.29 | 493 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | -0.03 | -0.16, 0.09 | -0.49 | -0.65, 0.58 | 0.63 |
| **Aggression** | **-0.13** | **-0.25, -0.01** | **-2.10** | **-0.74, 0.49** | **0.04** |
| Boldness | -0.02 | -0.11, 0.06 | -0.54 | -0.63, 0.59 | 0.59 |
| Exploration | -0.03 | -0.65, 0.58 | -0.50 | -0.65, 0.58 | 0.62 |
| Sociality | 0.07 | -0.56, 0.69 | 0.72 | -0.56, 0.69 | 0.47 |
| **Inverts** | | | | | |
| ***SMD*** | | | | | |
| QE=2657.20 | P<0.0001 |  | | | |
| F=1.46 | P=0.02 |  | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.92 | 0.96 | 37 |
| Species Name | 0 | 0 | 36 |
| Obs | 0.32 | 0.56 | 422 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | 0.33 | -0.04, 0.70 | 1.77 | -1.89, 2.55 | 0.08 |
| Aggression | 0.35 | -0.36, 1.06 | 0.97 | -1.95, 2.65 | 0.33 |
| Boldness | 0.31 | -0.05, 0.67 | 1.70 | -1.91, 2.53 | 0.09 |
| Exploration | 0.00 | -0.44, 0.45 | 0.02 | -2.23, 2.37 | 0.98 |
| Sociality | 0.39 | -0.38, 1.16 | 1.00 | -1.93, 2.71 | 0.32 |
| ***lnCVR*** |  |  |  |  |  |
| QE=1427.81 | P<0.0001 |  |  |  |  |
| F=1.03 | P=0.40 |  |  |  |  |
|  |  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.03 | 0.18 | 37 |
| Species Name | 0 | 0 | 36 |
| Obs | 0.09 | 0.30 | 422 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | -0.06 | -0.19, 0.08 | -0.83 | -0.82, 0.70 | 0.40 |
| Aggression | 0.17 | -0.10, 0.43 | 1.22 | -0.63, 0.96 | 0.22 |
| Boldness | -0.04 | -0.15, 0.08 | -0.61 | -0.79, 0.72 | 0.55 |
| Exploration | 0.07 | -0.12, 0.26 | 0.73 | -0.70, 0.84 | 0.47 |
| Sociality | 0.27 | -0.14, 0.68 | 1.29 | -0.59, 1.12 | 0.20 |
| **Mammals** | | | | | |
| ***SMD*** | | | | | |
| QE=2158.51 | P<0.0001 |  | | | |
| F=1.40 | P=0.22 |  | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.13 | 0.36 | 61 |
| Species Name | 0.07 | 0.26 | 45 |
| Obs | 0.15 | 0.39 | 674 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | -0.17 | -0.56, 0.23 | -0.84 | -1.38, 1.05 | 0.40 |
| Aggression | 0.10 | -0.27, 0.48 | 0.55 | -1.10, 1.31 | 0.59 |
| Boldness | 0.15 | -0.20, 0.50 | 0.85 | -1.05, 1.35 | 0.39 |
| Exploration | 0.05 | -0.31, 0.41 | 0.26 | -1.56, 1.25 | 0.79 |
| Sociality | 0.09 | -0.29, 0.47 | 0.46 | -1.12, 1.30 | 0.64 |
| ***lnCVR*** |  |  |  |  |  |
| QE=1044.60 | P<0.0001 |  |  |  |  |
| F=0.26 | P=0.93 |  |  |  |  |
|  |  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.03 | 0.18 | 61 |
| Species Name | 0 | 0 | 45 |
| Obs | 0.09 | 0.30 | 674 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | 0.10 | -0.20, 0.41 | 0.67 | -0.64, 0.85 | 0.50 |
| Aggression | 0.11 | -0.20, 0.42 | 0.69 | -0.64, 0.85 | 0.49 |
| Boldness | 0.06 | -0.22, 0.34 | 0.43 | -0.67, 0.79 | 0.67 |
| Exploration | 0.04 | -0.25, 0.34 | 0.28 | -0.69, 0.78 | 0.78 |
| Sociality | 0.06 | -0.25, 0.37 | 0.39 | -0.68, 0.80 | 0.70 |
| **Reptiles / Amphibians** | | | | | |
| ***SMD*** | | | | | |
| QE=151.82 | P<0.0001 |  | | | |
| F=1.29 | P=0.28 |  | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.02 | 0.13 | 11 |
| Species Name | 0 | 0 | 10 |
| Obs | 0.06 | 0.24 | 95 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | -0.05 | -0.45, 0.36 | -0.23 | -0.72, 0.63 | 0.82 |
| Aggression | -0.07 | -0.32, 0.19 | -0.52 | -0.66, 0.53 | 0.60 |
| Boldness | 0.12 | -0.09, 0.33 | 1.11 | -0.46, 0.70 | 0.27 |
| **Exploration** | **0.25** | **0.05, 0.45** | **2.44** | **-0.33, 0.83** | **0.02** |
| Sociality | -0.05 | -0.60, 0.50 | -0.18 | -0.82, 0.73 | 0.86 |
| ***lnCVR*** |  |  |  |  |  |
| QE=73.79 | P=0.89 |  |  |  |  |
| F=1.31 | P=0.27 |  |  |  |  |
|  |  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.04 | 0.20 | 11 |
| Species Name | 0 | 0 | 10 |
| Obs | 0 | 0 | 95 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | -0.11 | -0.51, 0.29 | -0.53 | -0.67, 0.46 | 0.60 |
| Aggression | 0.33 | -0.05, 0.72 | 1.73 | -0.22, 0.89 | 0.09 |
| Boldness | 0.10 | -0.13, 0.33 | 0.83 | -0.36, 0.56 | 0.41 |
| Exploration | -0.10 | -0.35, 0.14 | -0.84 | -0.57, 0.36 | 0.40 |
| Sociality | -0.12 | -0.76, 0.52 | -0.38 | -0.87, 0.63 | 0.70 |

S3 Random effects multilevel regression models – personality traits, taxonomic group and SSD

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Birds** | | | | | |
| ***SMD*** | | | | | |
| QE=2583.32 | P<0.0001 |  | | | |
| F=2.03 | P=0.03 |  | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.67 | 0.82 | 45 |
| Species Name | 0 | 0.01 | 86 |
| Obs | 0.16 | 0.40 | 446 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | -0.16 | -0.48, 0.15 | -1.02 | -1.99, 1.66 | 0.31 |
| Aggression | -0.15 | -0.47, 0.16 | -0.96 | -1.98, 1.67 | 0.34 |
| Boldness | -0.23 | -0.51, 0.06 | -1.57 | -2.05, 1.59 | 0.12 |
| Exploration | 0.07 | -0.24, 0.37 | 0.42 | -1.76, 1.89 | 0.67 |
| Sociality | -1.23 | -3.03, 0.57 | -1.34 | -3.78, 1.31 | 0.18 |
| SSD | 0.33 | -1.22, 1.88 | 0.42 | / | 0.67 |
| Aggression:SSD | 0.33 | -2.68, 3.34 | 0.22 | -3.17, 3.78 | 0.83 |
| Boldness:SSD | -0.88 | -2.39, 0.62 | -1.15 | -3.22, 1.46 | 0.25 |
| Exploration:SSD | -0.91 | -2.52, 0.70 | -1.11 | -3.32, 1.50 | 0.27 |
| Sociality:SSD | -3.43 | -12.82, 5.95 | -0.72 | -12.99, 6.12 | 0.47 |
| ***lnCVR*** |  |  |  |  |  |
| QE=3572.32 | P<0.0001 |  |  |  |  |
| F=1.63 | P=0.10 |  |  |  |  |
|  |  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.35 | 0.59 | 45 |
| Species Name | 0 | 0.03 | 86 |
| Obs | 0.40 | 0.63 | 446 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | 0.03 | -0.29, 0.34 | 0.16 | -1.71, 1.77 | 0.87 |
| Aggression | -0.12 | -0.48, 0.25 | -0.63 | -1.87, 1.63 | 0.53 |
| Boldness | 0.02 | -0.24, 0.28 | 0.15 | -1.71, 1.75 | 0.88 |
| **Exploration** | **-0.37** | **-0.66, -0.08** | **-2.49** | **-2.11, 1.37** | **0.01** |
| Sociality | 1.69 | -0.51, 3.89 | 1.51 | -1.10, 4.48 | 0.13 |
| SSD | -0.70 | -2.34, 0.93 | -0.85 | / | 0.40 |
| Aggression:SSD | -0.003 | -3.43, 3.43 | -0.002 | -3.84, 3.83 | 0.99 |
| Boldness:SSD | 1.32 | -0.46, 3.10 | 1.46 | -1.15, 3.79 | 0.15 |
| **Exploration:SSD** | **2.48** | **0.51, 4.44** | **2.48** | **-0.13, 5.08** | **0.01** |
| Sociality:SSD | 9.23 | -2.18, 20.64 | 1.59 | -2.31, 20.77 | 0.11 |
| **Fish** | | | | | |
| ***SMD*** | | | | | |
| QE=1296.80 | P<0.0001 |  | | | |
| F=1.00 | P=0.44 |  | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.03 | 0.18 | 43 |
| Species Name | 0.11 | 0.33 | 21 |
| Obs | 0.14 | 0.37 | 487 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | -0.11 | -0.67, 0.45 | -0.39 | -1.29, 1.07 | 0.70 |
| Aggression | -0.06 | -0.55, 0.43 | -0.24 | -1.20, 1.08 | 0.81 |
| Boldness | -0.16 | -0.65, 0.33 | -0.65 | -1.30, 0.98 | 0.52 |
| Exploration | -0.06 | -0.57, 0.45 | -0.23 | -1.21, 1.09 | 0.82 |
| Sociality | -0.36 | -0.90, 0.18 | -1.32 | -1.53, 0.80 | 0.19 |
| SSD | 0.37 | -2.19, 2.93 | 0.28 | / | 0.78 |
| Aggression:SSD | -0.09 | -2.74, 2.56 | -0.07 | -2.93, 2.75 | 0.95 |
| Boldness:SSD | -0.60 | -3.15, 1.95 | -0.46 | -3.35, 2.16 | 0.64 |
| Exploration:SSD | -0.66 | -3.36, 2.05 | -0.48 | -3.55, 2.24 | 0.63 |
| Sociality:SSD | -0.13 | -3.18, 2.92 | -0.08 | -3.35, 3.09 | 0.93 |
| ***lnCVR*** |  |  |  |  |  |
| QE=901.98 | P<0.0001 |  |  |  |  |
| F=0.72 | P=0.70 |  |  |  |  |
|  |  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.01 | 0.12 | 43 |
| Species Name | 0 | 0 | 21 |
| Obs | 0.09 | 0.29 | 487 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | -0.09 | -0.32, 0.15 | -0.72 | -0.75, 0.58 | 0.47 |
| **Aggression** | **-0.12** | **-0.25, 0.01** | **-1.86** | **-0.75, 0.51** | **0.06** |
| Boldness | -0.03 | -0.12, 0.07 | -0.53 | -0.65, 0.60 | 0.60 |
| Exploration | 0.00 | -0.16, -0.16 | -0.01 | -0.64, 0.64 | 0.99 |
| Sociality | 0.04 | -0.18, 0.26 | 0.35 | -0.62, 0.70 | 0.72 |
| SSD | -0.55 | -2.61, 1.51 | -0.53 | / | 0.60 |
| Aggression:SSD | 0.33 | -1.86, 2.52 | 0.30 | -1.94, 2.61 | 0.77 |
| Boldness:SSD | 0.62 | -1.46, 2.70 | 0.58 | -1.55, 2.79 | 0.56 |
| Exploration:SSD | 0.91 | -1.31, 3.12 | 0.80 | -1.40, 3.21 | 0.42 |
| Sociality:SSD | 0.20 | -2.24, 2.64 | 0.16 | -2.32, 2.71 | 0.87 |
| **Inverts** | | | | | |
| ***SMD*** | | | | | |
| QE=2608.44 | P<0.0001 |  | | | |
| F=1.23 | P=0.28 |  | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 1.02 | 1.01 | 37 |
| Species Name | 0 | 0.01 | 35 |
| Obs | 0.30 | 0.55 | 420 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | 0.16 | -0.25, 0.57 | 0.76 | -2.14, 2.46 | 0.45 |
| Aggression | 0.52 | -0.50, 1.55 | 1.01 | -1.96, 3.01 | 0.32 |
| Boldness | 0.31 | -0.10, 0.72 | 1.47 | -1.99, 2.61 | 0.14 |
| Exploration | -0.15 | -0.85, 0.55 | -0.42 | -2.52, 2.22 | 0.68 |
| Sociality | 0.23 | -0.56, 1.01 | 0.57 | -2.17, 2.62 | 0.57 |
| SSD | -0.87 | -2.25, 0.51 | -1.23 | / | 0.22 |
| Aggression:SSD | 1.31 | -2.82, 5.44 | 0.62 | -3.40, 6.02 | 0.53 |
| Boldness:SSD | 1.05 | -0.31, 2.41 | 1.52 | -1.59, 3.69 | 0.13 |
| Exploration:SSD | 0.21 | -2.74, 3.16 | 0.14 | -3.51, 3.93 | 0.89 |
| Sociality:SSD | / | / | / | / | / |
| ***lnCVR*** |  |  |  |  |  |
| QE=1405.87 | P<0.0001 |  |  |  |  |
| F=0.80 | P=0.62 |  |  |  |  |
|  |  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.04 | 0.20 | 37 |
| Species Name | 0 | 0.01 | 35 |
| Obs | 0.11 | 0.33 | 420 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | -0.03 | -0.19, 0.13 | -0.35 | -0.80, 0.75 | 0.73 |
| Aggression | 0.02 | -0.29, 0.34 | 0.15 | -0.80, 0.85 | 0.88 |
| Boldness | -0.03 | -0.16, 0.11 | -0.37 | -0.79, 0.74 | 0.71 |
| Exploration | 0.04 | -0.27, 0.35 | 0.23 | -0.78, 0.86 | 0.81 |
| Sociality | 0.28 | -0.14, 0.70 | 1.32 | -0.58, 1.15 | 0.19 |
| SSD | 0.17 | -0.44, 0.79 | 0.55 | / | 0.58 |
| Aggression:SSD | 0.67 | -0.60, 1.94 | 1.03 | -0.81, 2.15 | 0.30 |
| Boldness:SSD | -0.08 | -0.82, 0.67 | -0.20 | -1.14, 0.99 | 0.84 |
| Exploration:SSD | -0.34 | -2.06, 1.38 | -0.39 | -2.22, 1.54 | 0.70 |
| Sociality:SSD | / | / | / | / | / |
| **Mammals** | | | | | |
| ***SMD*** | | | | | |
| QE=1978.02 | P<0.0001 |  | | | |
| F=2.50 | P=0.006 |  | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.09 | 0.30 | 59 |
| Species Name | 0.17 | 0.41 | 43 |
| Obs | 0.16 | 0.40 | 633 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | 0.14 | -0.44, 0.72 | 0.47 | -1.24, 1.53 | 0.64 |
| Aggression | -0.06 | -0.61, 0.50 | -0.20 | -1.43, 1.32 | 0.84 |
| Boldness | 0.01 | -0.55, 0.58 | 0.05 | -1.37, 1.39 | 0.96 |
| Exploration | -0.13 | -0.68, 0.43 | -0.44 | -1.50, 1.25 | 0.66 |
| Sociality | 0.08 | -0.53, 0.69 | 0.25 | -1.32, 1.47 | 0.81 |
| **SSD** | **-1.83** | **-2.82, -0.85** | **-3.65** | **/** | **0.0003** |
| **Aggression:SSD** | **2.43** | **1.11, 3.74** | **3.63** | **0.61, 4.25** | **0.0003** |
| **Boldness:SSD** | **1.97** | **0.89, 3.05** | **3.57** | **0.31, 3.63** | **0.0004** |
| **Exploration:SSD** | **2.18** | **1.13, 3.23** | **4.08** | **0.54, 3.82** | **<0.0001** |
| **Sociality:SSD** | **1.67** | **0.41, 2.92** | **2.60** | **-0.11, 3.45** | **0.009** |
| ***lnCVR*** |  |  |  |  |  |
| QE=968.68 | P<0.0001 |  |  |  |  |
| F=0.26 | P=0.99 |  |  |  |  |
|  |  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.04 | 0.19 | 59 |
| Species Name | 0.06 | 0.24 | 43 |
| Obs | 0.03 | 0.18 | 633 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | 0.07 | -0.29, 0.43 | 0.41 | -0.71, 0.86 | 0.69 |
| Aggression | 0.11 | -0.24, 0.46 | 0.63 | -0.67, 0.90 | 0.53 |
| Boldness | 0.11 | -0.25, 0.46 | 0.58 | -0.68, 0.89 | 0.56 |
| Exploration | 0.04 | -0.32, 0.39 | 0.20 | -0.75, 0.82 | 0.84 |
| Sociality | 0.14 | -0.24, 0.53 | 0.75 | -0.65, 0.94 | 0.46 |
| SSD | 0.25 | -0.39, 0.90 | 0.77 | / | 0.44 |
| Aggression:SSD | -0.16 | -1.11, 0.78 | -0.34 | -1.34, 1.01 | 0.73 |
| Boldness:SSD | -0.30 | -1.03, 0.42 | -0.83 | -1.31, 0.70 | 0.41 |
| Exploration:SSD | -0.11 | -0.84, 0.62 | -0.28 | -1.12, 0.91 | 0.78 |
| Sociality:SSD | -0.43 | -1.28, 0.42 | -0.99 | -1.53, 0.67 | 0.32 |
| **Reptiles / Amphibians** | | | | | |
| ***SMD*** | | | | | |
| QE=136.65 | P=0.0003 |  | | | |
| F=2.28 | P=0.02 |  | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0 | 0 | 11 |
| Species Name | 0 | 0 | 10 |
| Obs | 0.06 | 0.24 | 95 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | 0.00 | -0.38, 0.38 | 0.00 | -0.61, 0.61 | 1.00 |
| Aggression | -0.05 | -0.19, 0.10 | -0.65 | -0.54, 0.45 | 0.52 |
| Boldness | -0.03 | -0.37, 0.31 | -0.19 | -0.62, 0.55 | 0.85 |
| **Exploration** | **0.37** | **0.15, 0.59** | **3.28** | **-0.16, 0.89** | **0.002** |
| Sociality | -0.05 | -0.87, 0.76 | -0.13 | -1.00, 0.89 | 0.90 |
| SSD | -2.17 | -5.78, 1.44 | -1.20 | / | 0.23 |
| **Aggression:SSD** | **4.08** | **0.09, 8.08** | **2.03** | **0.06, 8.11** | **0.05** |
| Boldness:SSD | 1.35 | -2.59, 5.28 | 0.68 | -2.62, 5.31 | 0.50 |
| Exploration:SSD | 2.76 | -1.03, 6.54 | 1.46 | -1.03, 6.54 | 0.15 |
| Sociality:SSD | 2.58 | -3.18, 8.34 | 0.89 | -3.18, 8.34 | 0.37 |
| ***lnCVR*** |  |  |  |  |  |
| QE=59.06 | P=0.99 |  |  |  |  |
| F=1.81 | P=0.07 |  |  |  |  |
|  |  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.01 | 0.08 | 11 |
| Species Name | 0 | 0 | 10 |
| Obs | 0 | 0 | 95 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | 0.03 | -0.43, 0.49 | 0.14 | -0.45, 0.52 | 0.89 |
| **Aggression** | **0.28** | **0.05, 0.51** | **2.41** | **0.00, 0.56** | **0.02** |
| Boldness | 0.05 | -0.22, 0.32 | 0.38 | -0.26, 0.37 | 0.70 |
| Exploration | 0.08 | -0.14, 0.29 | 0.71 | -0.19, 0.34 | 0.48 |
| Sociality | 0.03 | -1.43, 1.50 | 0.05 | -1.43, 1.50 | 0.96 |
| SSD | -2.30 | -8.22, 3.62 | -0.77 | / | 0.44 |
| Aggression:SSD | -1.27 | -7.73, 5.20 | -0.39 | -7.73, 5.20 | 0.70 |
| Boldness:SSD | 2.28 | -3.79, 8.34 | 0.75 | -3.80, 8.35 | 0.46 |
| Exploration:SSD | 3.41 | -2.59, 9.42 | 1.13 | -2.60, 9.42 | 0.26 |
| Sociality:SSD | 2.30 | -6.37, 10.98 | 0.53 | -6.37, 10.98 | 0.60 |

S4 – Random effects multilevel meta-regression models: personality traits, taxonomic groups and SSD (subsetted to only include traits and taxo groups with at least 10 different species)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Birds** | | | | | |
| ***SMD*** | | | | | |
| QE=1592.83 | P<0.0001 |  | | | |
| F=0.15 | P=0.70 |  | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 1.79 | 1.34 | 21 |
| Species Name | 0 | 0.01 | 78 |
| Obs | 0.11 | 0.33 | 233 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Intercept | -0.27 | -0.87, 0.33 | -0.89 | / | 0.38 |
| SSD | -0.23 | -1.45, 0.98 | -0.38 | / | 0.70 |
| ***lnCVR*** |  |  |  |  |  |
| QE=256.10 | P=0.12 |  |  |  |  |
| F=0.59 | P=0.44 |  |  |  |  |
|  |  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0 | 0 | 21 |
| Species Name | 0 | 0.06 | 78 |
| Obs | 0 | 0 | 233 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Intercept | 0.03 | -0.04, 0.11 | 0.89 | / | 0.37 |
| SSD | 0.11 | -0.16, 0.37 | 0.77 | / | 0.44 |
| **Fish** | | | | | |
| ***SMD*** | | | | | |
| QE=948.75 | P<0.0001 |  | | | |
| F=0.20 | P=0.94 |  | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.04 | 0.20 | 36 |
| Species Name | 0.15 | 0.39 | 20 |
| Obs | 0.19 | 0.44 | 265 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | / | / | / | / | / |
| Aggression | -0.09 | -0.66, 0.47 | -0.32 | / | 0.75 |
| Boldness | -0.13 | -0.70, 0.44 | -0.44 | / | 0.66 |
| Exploration | / | / | / | / | / |
| Sociality | / | / | / | / | / |
| SSD | 0.16 | -0.85, 1.17 | 0.31 | / | 0.76 |
| Activity:SSD | / | / | / | / | / |
| Boldness:SSD | -0.38 | -1.45, 0.69 | -0.70 | / | 0.48 |
| Exploration:SSD | / | / | / | / | / |
| Sociality:SSD | / | / | / | / | / |
| ***lnCVR*** |  |  |  |  |  |
| QE=375.89 | P<0.0001 |  |  |  |  |
| F=0.62 | P=0.65 |  |  |  |  |
|  |  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.02 | 0.14 | 36 |
| Species Name | 0.01 | 0.10 | 20 |
| Obs | 0.04 | 0.19 | 265 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | / | / | / | / | / |
| Aggression | -0.11 | -0.31, 0.09 | -1.10 | / | 0.27 |
| Boldness | -0.03 | -0.22, 0.16 | -0.33 | / | 0.74 |
| Exploration | / | / | / | / | / |
| Sociality | / | / | / | / | / |
| SSD | -0.28 | -1.03, 0.48 | -0.72 | / | 0.47 |
| Activity:SSD | / | / | / | / | / |
| Boldness:SSD | 0.39 | -0.44, 1.21 | 0.93 | / | 0.36 |
| Exploration:SSD | / | / | / | / | / |
| Sociality:SSD | / | / | / | / | / |
| **Inverts** | | | | | |
| ***SMD*** | | | | | |
| QE=2070.96 | P<0.0001 |  | | | |
| F=3.29 | P=0.01 |  | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 1.07 | 1.03 | 36 |
| Species Name | 0 | 0 | 33 |
| Obs | 0.18 | 0.43 | 367 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | 0.03 | -0.37, 0.42 | 0.13 | / | 0.90 |
| Aggression | / | / | / | / | / |
| Boldness | 0.37 | -0.02, 0.76 | 1.89 | / | 0.06 |
| Exploration | / | / | / | / | / |
| Sociality | / | / | / | / | / |
| SSD | -0.87 | -2.15, 0.42 | -1.32 | / | 0.19 |
| Aggression:SSD | / | / | / | / | / |
| **Boldness:SSD** | **1.29** | **0.22, 2.36** | **2.37** | **/** | **0.02** |
| Exploration:SSD | / | / | / | / | / |
| Sociality:SSD | / | / | / | / | / |
| ***lnCVR*** |  |  |  |  |  |
| QE=1078.09 | P<0.0001 |  |  |  |  |
| F=0.51 | P=0.73 |  |  |  |  |
|  |  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.06 | 0.24 | 37 |
| Species Name | 0 | 0 | 35 |
| Obs | 0.07 | 0.27 | 420 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | -0.08 | -0.22, 0.06 | -1.07 | / | 0.28 |
| Aggression | / | / | / | / | / |
| Boldness | -0.02 | -0.15, 0.11 | -0.27 | / | 0.79 |
| Exploration | / | / | / | / | / |
| Sociality | / | / | / | / | / |
| SSD | 0.05 | -0.56, 0.66 | 0.16 | / | 0.87 |
| Aggression:SSD | / | / | / | / | / |
| Boldness:SSD | 0.07 | -0.62, 0.76 | 0.20 | / | 0.84 |
| Exploration:SSD | / | / | / | / | / |
| Sociality:SSD | / | / | / | / | / |
| **Mammals** | | | | | |
| ***SMD*** | | | | | |
| QE=1696.37 | P<0.0001 |  | | | |
| F=4.49 | P<0.001 |  | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.10 | 0.31 | 55 |
| Species Name | 0 | 0 | 40 |
| Obs | 0.16 | 0.40 | 545 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | 0.27 | -0.01, 0.54 | 1.89 | / | 0.06 |
| Aggression | 0.15 | -0.07, 0.37 | 1.35 | / | 0.18 |
| Boldness | 0.13 | -0.07, 0.32 | 1.25 | / | 0.21 |
| Exploration | 0.02 | -0.17, 0.21 | 0.22 | / | 0.82 |
| Sociality | / | / | / | / | / |
| **SSD** | **-2.02** | **-2.95, -1.09** | **-4.27** | / | **<0.0001** |
| **Aggression:SSD** | **3.45** | **2.05, 4.86** | **4.82** | / | **<0.0001** |
| **Boldness:SSD** | **1.96** | **0.95, 2.96** | **3.83** | / | **0.0001** |
| **Exploration:SSD** | **1.94** | **0.93, 2.95** | **3.78** | / | **0.0002** |
| **Sociality:SSD** | / | / | / | / | / |
| ***lnCVR*** |  |  |  |  |  |
| QE=884.20 | P<0.0001 |  |  |  |  |
| F=0.37 | P=0.93 |  |  |  |  |
|  |  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.04 | 0.19 | 55 |
| Species Name | 0.03 | 0.17 | 40 |
| Obs | 0.04 | 0.20 | 545 |
| *Model* | Estimate | 95% CIs | t-score | Prediction Interval | p-value |
| Activity | 0.07 | -0.22, 0.36 | 0.48 | / | 0.63 |
| Aggression | 0.10 | -0.18, 0.38 | 0.71 | / | 0.48 |
| Boldness | 0.10 | -0.19, 0.38 | 0.71 | / | 0.48 |
| Exploration | 0.02 | -0.26, 0.30 | 0.28 | / | 0.78 |
| Sociality | / | / | / | / | / |
| SSD | 0.29 | -0.35, 0.94 | 0.91 | / | 0.36 |
| Aggression:SSD | -0.15 | -1.14, 0.84 | -0.30 | / | 0.76 |
| Boldness:SSD | -0.29 | -1.01, 0.43 | -0.83 | / | 0.41 |
| Exploration:SSD | -0.03 | -0.76, 0.70 | -0.20 | / | 0.84 |
| Sociality:SSD | / | / | / | / | / |

S5 Subset SSD Models – Activity (intercept) and SSD

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Inverts** | | | | | | |
| ***SMD*** | | | | | | |
| QE=1069.50 | P<0.0001 |  | | | | |
| F=0.67 | P=0.41 |  | | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 2.23 | 1.49 | 18 |
| Species Name | 0 | 0.01 | 16 |
| Obs | 0.15 | 0.39 | 165 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | 0.31 | -0.42, 1.04 | 0.83 | 0.38 |
| SSD | -0.66 | -2.26, 0.93 | -0.82 | 0.70 |
| ***lnCVR*** |  |  |  |  |
| QE=475.98 | P=0.12 |  |  |  |
| F=0.45 | P=0.50 |  |  |  |
|  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.12 | 0.35 | 18 |
| Species Name | 0 | 0 | 16 |
| Obs | 0.05 | 0.23 | 165 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | -0.04 | -0.25, 0.17 | -0.36 | 0.72 |
| SSD | 0.27 | -0.53, 1.07 | 0.67 | 0.50 |
| **Mammals** | | | | | | |
| ***SMD*** | | | | | | |
| QE=321.40 | P<0.0001 |  | | | | |
| F=5.46 | P=0.02 |  | | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.10 | 0.32 | 14 |
| Species Name | 2.13 | 1.46 | 12 |
| Obs | 0.21 | 0.45 | 84 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | 0.44 | -1.74, 2.62 | 0.40 | 0.69 |
| **SSD** | **-2.16** | **-3.99, -0.32** | **-2.34** | **0.02** |
| ***lnCVR*** |  |  |  |  | |  |
| QE=146.26 | P<0.0001 |  |  |  | |  |
| F=0.13 | P=0.72 |  |  |  | |  |
|  |  |  |  |  | |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.03 | 0.17 | 14 |
| Species Name | 0 | 0.01 | 12 |
| Obs | 0.06 | 0.25 | 84 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | 0.05 | -0.15, 0.25 | 0.52 | 0.60 |
| SSD | 0.13 | -0.56, 0.81 | 0.36 | 0.72 |

S6 Subset SSD Models – Aggression (intercept) and SSD

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Fish** | | | | | | |
| ***SMD*** | | | | | | |
| QE=334.17 | P<0.0001 |  | | | | |
| F=0.23 | P=0.63 |  | | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.02 | 0.14 | 16 |
| Species Name | 0.33 | 0.58 | 13 |
| Obs | 0.17 | 0.41 | 93 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | -0.16 | -0.96, 0.63 | -0.41 | 0.68 |
| SSD | 0.27 | -0.84, 1.37 | 0.48 | 0.63 |
| ***lnCVR*** |  |  |  |  |
| QE=68.27 | P=0.96 |  |  |  |
| F=0.15 | P=0.70 |  |  |  |
|  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.02 | 0.15 | 16 |
| Species Name | 0 | 0 | 13 |
| Obs | 0 | 0 | 93 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| **Intercept** | **-0.12** | **-0.23, 0.00** | **-1.95** | **0.05** |
| SSD | -0.13 | -0.81, 0.55 | -0.39 | 0.70 |
| **Mammals** | | | | | | |
| ***SMD*** | | | | | | |
| QE=313.78 | P<0.0001 |  | | | | |
| F=3.92 | P=0.05 |  | | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0 | 0 | 15 |
| Species Name | 0.69 | 0.83 | 13 |
| Obs | 0.14 | 0.38 | 85 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | -0.09 | -1.29, 1.10 | -0.16 | 0.88 |
| **SSD** | **1.36** | **-0.01, 2.73** | **1.98** | **0.05** |
| ***lnCVR*** |  |  |  |  | |  |
| QE=201.50 | P<0.0001 |  |  |  | |  |
| F=0.01 | P=0.94 |  |  |  | |  |
|  |  |  |  |  | |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.18 | 0.42 | 15 |
| Species Name | 0 | 0.01 | 13 |
| Obs | 0.15 | 0.39 | 85 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | 0.09 | -0.21, 0.39 | 0.59 | 0.56 |
| SSD | -0.05 | -1.43, 1.33 | -0.07 | 0.94 |

S7 Subset SSD Models – Boldness (intercept) and SSD

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Birds** | | | | | | |
| ***SMD*** | | | | | | |
| QE=1592.83 | P<0.0001 |  | | | | |
| F=0.15 | P=0.70 |  | | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 1.82 | 1.35 | 21 |
| Species Name | 0 | 0.01 | 78 |
| Obs | 0.11 | 0.33 | 233 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | -0.27 | -0.87, 0.33 | -0.88 | 0.38 |
| SSD | -0.23 | -1.45, 0.98 | -0.38 | 0.70 |
| ***lnCVR*** |  |  |  |  |
| QE=256.10 | P=0.12 |  |  |  |
| F=0.59 | P=0.44 |  |  |  |
|  |  |  |  |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0 | 0 | 21 |
| Species Name | 0 | 0.06 | 78 |
| Obs | 0 | 0 | 233 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | 0.03 | -0.04, 0.11 | 0.89 | 0.37 |
| SSD | 0.11 | -0.16, 0.37 | 0.77 | 0.44 |
| **Fish** | | | | | | |
| ***SMD*** | | | | | | |
| QE=614.58 | P<0.0001 |  | | | | |
| F=1.07 | P=0.30 |  | | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.04 | 0.20 | 23 |
| Species Name | 0.02 | 0.15 | 12 |
| Obs | 0.20 | 0.45 | 172 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | 0.06 | -0.23, 0.34 | 0.39 | 0.70 |
| SSD | -0.32 | -0.93, 0.29 | -1.03 | 0.30 |
| ***lnCVR*** |  |  |  |  | |  |
| QE=307.62 | P<0.0001 |  |  |  | |  |
| F=0.24 | P=0.63 |  |  |  | |  |
|  |  |  |  |  | |  |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.02 | 0.13 | 23 |
| Species Name | 0.03 | 0.16 | 12 |
| Obs | 0.06 | 0.24 | 172 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | -0.04 | -0.33, 0.25 | -0.28 | 0.78 |
| SSD | 0.10 | -0.31, 0.52 | 0.49 | 0.63 |
| **Inverts** | | | | | | |
| ***SMD*** | | | | | | |
| QE=923.09 | P<0.0001 |  | | | | |
| F=0.46 | P=0.50 |  | | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.90 | 0.31 | 22 |
| Species Name | 0 | 0 | 22 |
| Obs | 0.32 | 0.56 | 161 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | 0.18 | -0.03, 0.38 | 1.68 | 0.09 |
| SSD | 0.28 | -0.54, 1.10 | 0.68 | 0.50 |
| ***lnCVR*** |  |  |  |  | |
| QE=561.57 | P<0.0001 |  |  |  | |
| F=0.00 | P=0.95 |  |  |  | |
|  |  |  |  |  | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.03 | 0.16 | 22 |
| Species Name | 0 | 0.01 | 22 |
| Obs | 0.10 | 0.32 | 161 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | -0.04 | -0.16, 0.09 | -0.58 | 0.56 |
| SSD | 0.02 | -0.47, 0.51 | 0.07 | 0.95 |
| **Mammals** | | | | | | |
| ***SMD*** | | | | | | |
| QE=402.76 | P<0.0001 |  | | | | |
| F=0.92 | P=0.34 |  | | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.02 | 0.16 | 26 |
| Species Name | 0 | 0.05 | 26 |
| Obs | 0.15 | 0.39 | 163 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | 0.09 | -0.09, 0.27 | 0.96 | 0.88 |
| SSD | -0.16 | -0.50, 0.17 | -0.96 | 0.05 |
| ***lnCVR*** |  |  |  |  | |
| QE=175.27 | P<0.0001 |  |  |  | |
| F=0.88 | P=0.35 |  |  |  | |
|  |  |  |  |  | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0 | 0.03 | 26 |
| Species Name | 0 | 0 | 26 |
| Obs | 0.02 | 0.14 | 163 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | 0.07 | -0.03, 0.16 | 1.37 | 0.16 |
| SSD | 0.08 | -0.09, 0.25 | 0.94 | 0.35 |

S8 Subset SSD Models – Exploration (intercept) and SSD

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Mammals** | | | | | | |
| ***SMD*** | | | | | | |
| QE=658.46 | P<0.0001 |  | | | | |
| F=0.04 | P=0.85 |  | | | | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.05 | 0.22 | 19 |
| Species Name | 0 | 0 | 16 |
| Obs | 0.13 | 0.36 | 213 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | 0.00 | -0.18, 0.18 | -0.02 | 0.99 |
| SSD | -0.05 | -0.60, 0.50 | -0.19 | 0.85 |
| ***lnCVR*** |  |  |  |  | |
| QE=361.16 | P<0.0001 |  |  |  | |
| F=0.27 | P=0.61 |  |  |  | |
|  |  |  |  |  | |
| *Variance* | Estimate | SQRT | n |
| Study ID | 0.02 | 0.14 | 19 |
| Species Name | 0.03 | 0.16 | 16 |
| Obs | 0.03 | 0.18 | 213 |
| *Model* | Estimate | 95% CIs | t-score | p-value |
| Intercept | -0.06 | -0.36, 0.24 | -0.40 | 0.69 |
| SSD | 0.13 | -0.37, 0.64 | 0.52 | 0.61 |

S9 Exploratory contrast models – mating system