**Table S1:** **Repeatability and responses of each behavioral trait.** Intraclass Correlation Coefficient (ICC) as indicator of repeatability, and ANOVA with generalized linear model (GLMs) for behavioral responses of *Smicridea annulicornis.* Geographical origin (basins Choapa, Maipo and Maule), conductivity levels (low, medium, high), age and body length were used as predictor factors. Statistical significance: \* P< 0.05, \*\* P < 0.01, \*\*\* P < 0.001.

|  |  |  |
| --- | --- | --- |
| **Trait** | **Factor** | **F-value (df)** |
| **Swimming** | Age | 5.27 (1,203)\* |
| ICC  0.04 ± 0.01 (SE) | Body length | 4.07 (1,202)\* |
| Conductivity | 1.93 (2,200) |
|  | Basin | 14.9 (2,198)\*\*\* |
|  | Conductivity × basin | 1.95 (4,194) |
| **Pushing-up** | Age | 4.99 (1,203)\* |
| ICC  0.02 ± 0.006 (SE) | Body length | 0.06 (1,202) |
| Conductivity | 0.36 (2,200) |
|  | Basin | 23.7 (2,198)\*\*\* |
|  | Conductivity × basin | 0.57 (4,194) |
| **Walking** | Age | 0.26 (1,203) |
| ICC  0.15 ± 0.03 (SE) | Body length | 0.07 (1,202) |
| Conductivity | 0.43 (2,200) |
|  | Basin | 2.29 (2,198) |
|  | Conductivity × basin | 0.82 (4,194) |
| **Sheltering** | Age | 11.9 (1,203)\*\*\* |
| ICC  0.13 ± 0.03 (SE) | Body length | 23.8 (1,202)\*\*\* |
| Conductivity | 1.21 (2,200) |
|  | Basin | 2.12 (2,198) |
|  | Conductivity × basin | 0.58 (4,194) |