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Figure S1: Probability Density plots to assess adult stickleback size distribution for the sample lakes. The blue bars represent the size bins, the green curve represents a smoothed curve of the bins, and the red distributions are the age groups as calculated by the model (mixdist).

Table S1: R-packaged used for statistical analyses and plot creation

|  |  |
| --- | --- |
| R-package | Used for… |
| xlsx (Dragulescu and Arendt, 2020) | Importing excel files |
| mixdist (Macdonald and Du, 2018) | Age class analysis |
| lme4 (Bates et al. 2015) | Linear mixed effects modelling |
| emmeans (Lenth 2021) | Post-hoc comparisons |
| ggplot2 (Wickham 2016) | Plot creation – Data visualization |
| sjPlot (Luedecke 2021) | Plot creation from regression model |
| scales (Wickham and Seidel 2020) | Plot creation – Scales function for visualization |

Table S2: Mean Parasite number and mean parasite weight per fish for1-year-old stickleback from the Cohort 2018 and Cohort 2019. SD = standard deviation

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Lake | Parasite number  Cohort 2018 | | Parasite weight per fish (g) – Cohort 2018 | | Parasite number  Cohort 2019 | | Parasite weight per fish (g) – Cohort 2019 | |
|  | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| Walby | 1.56 | 0.9 | 0.13 | 0.11 | 1.9 | 1.5 | 0.2 | 0.09 |
| Cornelius | 2.18 | 2.79 | 0.12 | 0.11 | 1.44 | 1.14 | 0.1 | 0.09 |
| Wolf | NA | NA | NA | NA | 1.69 | 1.06 | 0.22 | 0.08 |

# References (Supplementary Material)

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**Wickham H** (2016) ggplot2: Elegant Graphics for Data Analysis. *Springer-Verlag*, New York, USA

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