|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | |
| **Predictors** | **Estimate (± SE)** | **t-value** | | **LLR** | | **p-value** | |
| **Increment width (marginal R2 = 0.716; conditional R2 = 0.720)1** | | | | | | | | | |
| Intercept | 2.88 (0.19) | 29.564 | |  | |  | |
| lifeyear | -0.25 (0.08) | -6.647 | |  | |  | |
| **lifeyear2** | **0.02 (0.01)** | **10.953** | | **108.95** | | **< 0.001 \*\*\*** | |
| res mean | -0.05 (0.03) | -3.353 | |  | |  | |
| **lifeyear x res mean** | **0.01 (0.01)** | **2.524** | | **6.6428** | | **0.009\*\*** | |
| Sr mean | 0.01 (0.04) | 0.371 | | 0.3299 | | 0.566 | |
| clust [F\_IntS] | -0.02 (0.2) | -0.189 | |  | |  | |
| clust [F\_LowS] | -0.08 (0.2) | -0.79 | |  | |  | |
| clust [S\_HighS] | -0.08 (0.2) | -0.733 | |  | |  | |
| clust [S\_IntS] | -0.12 (0.18) | -1.286 | |  | |  | |
| clust [S\_LowS] | -0.02 (0.18) | -0.182 | |  | |  | |
| **sex [m]** | **-0.04 (0.03)** | **-2.614** | | **8.3298** | | **0.004 \*\*** | |
| **lifeyear \* clust [F\_IntS]** | **0.03 (0.07)** | **0.748** | | **12.503** | | **0.029 \*** | |
| **lifeyear \* clust [F\_LowS]** | **0.05 (0.07)** | **1.283** | | **12.503** | | **0.029 \*** | |
| **lifeyear \* clust [S\_HighS]** | **0.03 (0.07)** | **0.709** | | **12.503** | | **0.029 \*** | |
| **lifeyear \* clust [S\_IntS]** | **0.04 (0.07)** | **1.194** | | **12.503** | | **0.029 \*** | |
| **lifeyear \* clust [S\_LowS]** | **0.02 (0.07)** | **0.539** | | **12.503** | | **0.029 \*** | |
| **Random Effects** | **Variance (± SD)** | | **t-value** | | **LLR** | | **p-value** | |
| waterbody | 0.0002 (0.015) | |  | | <0.0001 | | 1 | | |
| Residual | 0.017 (0.132) | |  | |  | |  | | |
| *SE: Standard error; SD: Standard deviation; LLR: Log-likelihood ratio.*  *The response variable increment was log10-transformed prior to analysis. Predictors δ18O-residuals and strontium concentrations were centered and scaled to unit variance prior to analysis. Significance of effects was tested using log-likelihood ratio tests on nested models. If a two-way interaction was tested to e significant, the significance of involved main effects was not tested (see section “Material and Methods” for details). Significant effects are shown in bold.*  *1Marginal R2 describes the proportion of the total variance explained by fixed effects in the model, conditional R2 describes the proportion of total variance explained by fixed and random effects combined in the model.* | | | | | | | | | |