### Supplementary information for Spurgin *et al.* "Telomeres reveal silver spoon effects in a wild population"

**Table S1** Model selection table for analysis of factors affecting early life telomere length in juvenile Seychelles warblers. Only models that remained in the top model set for model averaging (AICc 6 compared to the top model) are included here. TQ = territory quality.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Model | df | AICc | Delta AICc | Weight |
| Sex (males) + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 9 | -971.05 | 0.00 | 0.24 |
| Sex (males) + Density + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 10 | -969.96 | 1.09 | 0.14 |
| Helpers + Sex (males) + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 10 | -969.34 | 1.71 | 0.10 |
| Sex (males) + Body mass + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 10 | -969.03 | 2.02 | 0.09 |
| Sex (males) + Group Size + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 10 | -969.03 | 2.02 | 0.09 |
| Helpers + Sex (males) + Density + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 11 | -968.17 | 2.88 | 0.06 |
| Sex (males) + Body mass + Density + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 11 | -967.96 | 3.10 | 0.05 |
| Sex (males) + Density + Group Size + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 11 | -967.94 | 3.12 | 0.05 |
| Helpers + Sex (males) + Group Size + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 11 | -967.42 | 3.64 | 0.04 |
| Helpers + Sex (males) + Body mass + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 11 | -967.33 | 3.72 | 0.04 |
| Sex (males) + Body mass + Group Size + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 11 | -967.01 | 4.04 | 0.03 |
| Helpers + Sex (males) + Density + Group Size + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 12 | -966.30 | 4.76 | 0.02 |
| Helpers + Sex (males) + Body mass + Density + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 12 | -966.18 | 4.88 | 0.02 |
| Sex (males) + Body mass + Density + Group Size + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 12 | -965.93 | 5.13 | 0.02 |
| Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 8 | -965.49 | 5.57 | 0.01 |
| Helpers + Sex (males) + Body mass + Group Size + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 12 | -965.39 | 5.66 | 0.01 |

**Table S2** Model selection table for analysis of factors affecting RTL in Seychelles warbler nestlings, using longitudinal data. Only models that remained in the top model set for model averaging (AICc 6 compared to the top model) are included here. TQ = territory quality.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Model | df | AICc | Delta AICc | Weight |
| Density + Log age + df + logLik + AICc + delta + weight | 6 | -1.07 | 0.00 | 0.05 |
| Body mass + Density + Log age + df + logLik + AICc + delta + weight | 7 | 0.27 | 1.34 | 0.03 |
| Helpers + Density + Log age + df + logLik + AICc + delta + weight | 7 | 0.27 | 1.34 | 0.03 |
| Density + Insect abundance + Log age + df + logLik + AICc + delta + weight | 7 | 0.47 | 1.54 | 0.02 |
| Density + Log age + Tarsus + df + logLik + AICc + delta + weight | 7 | 0.50 | 1.57 | 0.02 |
| Sex (males) + Density + Log age + df + logLik + AICc + delta + weight | 7 | 0.66 | 1.74 | 0.02 |
| Sex (males) + Density + Log age + Tarsus + df + logLik + AICc + delta + weight | 8 | 0.77 | 1.84 | 0.02 |
| Sex (males) + Body mass + Density + Log age + df + logLik + AICc + delta + weight | 8 | 0.93 | 2.01 | 0.02 |
| Density + Group Size + Log age + df + logLik + AICc + delta + weight | 7 | 0.97 | 2.05 | 0.02 |
| Density + df + logLik + AICc + delta + weight | 5 | 1.05 | 2.12 | 0.02 |
| Log age + df + logLik + AICc + delta + weight | 5 | 1.39 | 2.47 | 0.02 |
| Sex (males) + Density + Tarsus + df + logLik + AICc + delta + weight | 7 | 1.46 | 2.54 | 0.02 |
| Helpers + Body mass + Density + Log age + df + logLik + AICc + delta + weight | 8 | 1.53 | 2.60 | 0.01 |
| Body mass + Density + df + logLik + AICc + delta + weight | 6 | 1.60 | 2.67 | 0.01 |
| Helpers + Density + Insect abundance + Log age + df + logLik + AICc + delta + weight | 8 | 1.77 | 2.84 | 0.01 |
| Density + Tarsus + df + logLik + AICc + delta + weight | 6 | 1.78 | 2.85 | 0.01 |
| Body mass + Density + Insect abundance + Log age + df + logLik + AICc + delta + weight | 8 | 1.78 | 2.86 | 0.01 |
| Sex (males) + Body mass + Density + Log age + Tarsus + df + logLik + AICc + delta + weight | 9 | 1.85 | 2.92 | 0.01 |
| Helpers + Density + Group Size + Log age + df + logLik + AICc + delta + weight | 8 | 1.85 | 2.92 | 0.01 |
| Density + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 8 | 1.90 | 2.97 | 0.01 |
| Helpers + Density + Log age + Tarsus + df + logLik + AICc + delta + weight | 8 | 1.90 | 2.98 | 0.01 |
| Helpers + Sex (males) + Density + Log age + df + logLik + AICc + delta + weight | 8 | 1.99 | 3.07 | 0.01 |
| Sex (males) + Body mass + Density + df + logLik + AICc + delta + weight | 7 | 2.06 | 3.13 | 0.01 |
| Helpers + Sex (males) + Body mass + Density + Log age + df + logLik + AICc + delta + weight | 9 | 2.07 | 3.14 | 0.01 |
| Sex (males) + Density + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 9 | 2.09 | 3.17 | 0.01 |
| Sex (males) + Body mass + Density + Tarsus + df + logLik + AICc + delta + weight | 8 | 2.12 | 3.19 | 0.01 |
| Helpers + Sex (males) + Density + Log age + Tarsus + df + logLik + AICc + delta + weight | 9 | 2.22 | 3.29 | 0.01 |
| Body mass + Density + Log age + Tarsus + df + logLik + AICc + delta + weight | 8 | 2.23 | 3.31 | 0.01 |
| Sex (males) + Density + Insect abundance + Log age + df + logLik + AICc + delta + weight | 8 | 2.25 | 3.33 | 0.01 |
| Body mass + Density + Group Size + Log age + df + logLik + AICc + delta + weight | 8 | 2.31 | 3.38 | 0.01 |
| Helpers + Density + df + logLik + AICc + delta + weight | 6 | 2.45 | 3.53 | 0.01 |
| Density + Group Size + Insect abundance + Log age + df + logLik + AICc + delta + weight | 8 | 2.52 | 3.59 | 0.01 |
| Density + Insect abundance + df + logLik + AICc + delta + weight | 6 | 2.53 | 3.61 | 0.01 |
| Sex (males) + Body mass + Density + Insect abundance + Log age + df + logLik + AICc + delta + weight | 9 | 2.54 | 3.61 | 0.01 |
| Density + Group Size + Log age + Tarsus + df + logLik + AICc + delta + weight | 8 | 2.55 | 3.62 | 0.01 |
| Sex (males) + Density + Insect abundance + Tarsus + df + logLik + AICc + delta + weight | 8 | 2.64 | 3.71 | 0.01 |
| Helpers + Log age + df + logLik + AICc + delta + weight | 6 | 2.70 | 3.78 | 0.01 |
| Sex (males) + Density + Group Size + Log age + df + logLik + AICc + delta + weight | 8 | 2.71 | 3.78 | 0.01 |
| Body mass + Log age + df + logLik + AICc + delta + weight | 6 | 2.77 | 3.85 | 0.01 |
| Sex (males) + Density + Group Size + Log age + Tarsus + df + logLik + AICc + delta + weight | 9 | 2.80 | 3.87 | 0.01 |
| Log age + Tarsus + df + logLik + AICc + delta + weight | 6 | 2.87 | 3.94 | 0.01 |
| Sex (males) + Log age + Tarsus + df + logLik + AICc + delta + weight | 7 | 2.88 | 3.95 | 0.01 |
| Helpers + Body mass + Density + df + logLik + AICc + delta + weight | 7 | 2.88 | 3.96 | 0.01 |
| Sex (males) + Density + df + logLik + AICc + delta + weight | 6 | 2.91 | 3.98 | 0.01 |
| Sex (males) + Body mass + Density + Group Size + Log age + df + logLik + AICc + delta + weight | 9 | 2.97 | 4.05 | 0.01 |
| Density + Group Size + df + logLik + AICc + delta + weight | 6 | 2.98 | 4.05 | 0.01 |
| Helpers + Sex (males) + Density + Tarsus + df + logLik + AICc + delta + weight | 8 | 2.99 | 4.07 | 0.01 |
| Helpers + Body mass + Density + Insect abundance + Log age + df + logLik + AICc + delta + weight | 9 | 3.00 | 4.08 | 0.01 |
| Density + Insect abundance + Tarsus + df + logLik + AICc + delta + weight | 7 | 3.04 | 4.11 | 0.01 |
| Body mass + Density + Insect abundance + df + logLik + AICc + delta + weight | 7 | 3.05 | 4.12 | 0.01 |
| Sex (males) + Log age + df + logLik + AICc + delta + weight | 6 | 3.09 | 4.16 | 0.01 |
| Helpers + Sex (males) + Body mass + Density + Log age + Tarsus + df + logLik + AICc + delta + weight | 10 | 3.13 | 4.21 | 0.01 |
| Helpers + Sex (males) + Body mass + Density + df + logLik + AICc + delta + weight | 8 | 3.21 | 4.28 | 0.01 |
| Sex (males) + Body mass + Density + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 10 | 3.25 | 4.32 | 0.01 |
| Helpers + Density + Tarsus + df + logLik + AICc + delta + weight | 7 | 3.27 | 4.35 | 0.01 |
| Helpers + Density + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 9 | 3.27 | 4.35 | 0.01 |
| Helpers + Density + Group Size + Insect abundance + Log age + df + logLik + AICc + delta + weight | 9 | 3.29 | 4.36 | 0.01 |
| Body mass + Density + Tarsus + df + logLik + AICc + delta + weight | 7 | 3.32 | 4.39 | 0.01 |
| Helpers + Body mass + Density + Group Size + Log age + df + logLik + AICc + delta + weight | 9 | 3.33 | 4.40 | 0.01 |
| Group Size + Log age + df + logLik + AICc + delta + weight | 6 | 3.34 | 4.42 | 0.01 |
| Sex (males) + Density + Group Size + Tarsus + df + logLik + AICc + delta + weight | 8 | 3.34 | 4.42 | 0.01 |
| Sex (males) + Body mass + Log age + df + logLik + AICc + delta + weight | 7 | 3.39 | 4.46 | 0.01 |
| Sex (males) + Body mass + Density + Insect abundance + Tarsus + df + logLik + AICc + delta + weight | 9 | 3.40 | 4.47 | 0.01 |
| Insect abundance + Log age + df + logLik + AICc + delta + weight | 6 | 3.42 | 4.49 | 0.01 |
| Helpers + Sex (males) + Body mass + Density + Tarsus + df + logLik + AICc + delta + weight | 9 | 3.45 | 4.53 | 0.01 |
| Helpers + Sex (males) + Density + Group Size + Log age + df + logLik + AICc + delta + weight | 9 | 3.48 | 4.56 | 0.01 |
| Helpers + Sex (males) + Density + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 10 | 3.51 | 4.58 | 0.01 |
| Helpers + Density + Group Size + df + logLik + AICc + delta + weight | 7 | 3.51 | 4.59 | 0.01 |
| Helpers + Density + Group Size + Log age + Tarsus + df + logLik + AICc + delta + weight | 9 | 3.53 | 4.60 | 0.01 |
| Helpers + Sex (males) + Density + Insect abundance + Log age + df + logLik + AICc + delta + weight | 9 | 3.55 | 4.62 | 0.01 |
| Helpers + Body mass + Density + Log age + Tarsus + df + logLik + AICc + delta + weight | 9 | 3.55 | 4.62 | 0.01 |
| Sex (males) + Body mass + Density + Insect abundance + df + logLik + AICc + delta + weight | 8 | 3.61 | 4.69 | 0.01 |
| Helpers + Sex (males) + Density + Group Size + Log age + Tarsus + df + logLik + AICc + delta + weight | 10 | 3.62 | 4.70 | 0.01 |
| Helpers + Sex (males) + Body mass + Density + Insect abundance + Log age + df + logLik + AICc + delta + weight | 10 | 3.63 | 4.71 | 0.01 |
| Body mass + Density + Group Size + df + logLik + AICc + delta + weight | 7 | 3.64 | 4.71 | 0.01 |
| Sex (males) + Tarsus + df + logLik + AICc + delta + weight | 6 | 3.66 | 4.74 | 0.00 |
| Body mass + Density + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 9 | 3.69 | 4.76 | 0.00 |
| Density + Group Size + Tarsus + df + logLik + AICc + delta + weight | 7 | 3.74 | 4.82 | 0.00 |
| df + logLik + AICc + delta + weight | 4 | 3.75 | 4.82 | 0.00 |
| Helpers + Group Size + Log age + df + logLik + AICc + delta + weight | 7 | 3.75 | 4.82 | 0.00 |
| Body mass + Density + Group Size + Insect abundance + Log age + df + logLik + AICc + delta + weight | 9 | 3.84 | 4.91 | 0.00 |
| Helpers + Sex (males) + Body mass + Density + Group Size + Log age + df + logLik + AICc + delta + weight | 10 | 3.87 | 4.94 | 0.00 |
| Helpers + Density + Insect abundance + df + logLik + AICc + delta + weight | 7 | 3.90 | 4.98 | 0.00 |
| Sex (males) + Body mass + Density + Group Size + Log age + Tarsus + df + logLik + AICc + delta + weight | 10 | 3.92 | 4.99 | 0.00 |
| Helpers + Sex (males) + Density + Group Size + Tarsus + df + logLik + AICc + delta + weight | 9 | 3.93 | 5.00 | 0.00 |
| Density + Group Size + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 9 | 3.96 | 5.03 | 0.00 |
| Helpers + Body mass + Log age + df + logLik + AICc + delta + weight | 7 | 4.00 | 5.08 | 0.00 |
| Sex (males) + Body mass + Log age + Tarsus + df + logLik + AICc + delta + weight | 8 | 4.03 | 5.11 | 0.00 |
| Sex (males) + Body mass + Density + Group Size + df + logLik + AICc + delta + weight | 8 | 4.11 | 5.19 | 0.00 |
| Sex (males) + Density + Group Size + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 10 | 4.12 | 5.19 | 0.00 |
| Helpers + Sex (males) + Density + Insect abundance + Tarsus + df + logLik + AICc + delta + weight | 9 | 4.13 | 5.20 | 0.00 |
| Sex (males) + Body mass + Density + Group Size + Tarsus + df + logLik + AICc + delta + weight | 9 | 4.16 | 5.23 | 0.00 |
| Helpers + Log age + Tarsus + df + logLik + AICc + delta + weight | 7 | 4.25 | 5.32 | 0.00 |
| Body mass + Density + Group Size + Log age + Tarsus + df + logLik + AICc + delta + weight | 9 | 4.29 | 5.37 | 0.00 |
| Helpers + Body mass + Density + Insect abundance + df + logLik + AICc + delta + weight | 8 | 4.29 | 5.37 | 0.00 |
| Tarsus + df + logLik + AICc + delta + weight | 5 | 4.29 | 5.37 | 0.00 |
| Sex (males) + Density + Group Size + Insect abundance + Log age + df + logLik + AICc + delta + weight | 9 | 4.30 | 5.38 | 0.00 |
| Helpers + Sex (males) + Log age + Tarsus + df + logLik + AICc + delta + weight | 8 | 4.30 | 5.38 | 0.00 |
| Helpers + Sex (males) + Density + df + logLik + AICc + delta + weight | 7 | 4.31 | 5.38 | 0.00 |
| Body mass + df + logLik + AICc + delta + weight | 5 | 4.33 | 5.40 | 0.00 |
| Helpers + Sex (males) + Log age + df + logLik + AICc + delta + weight | 7 | 4.39 | 5.46 | 0.00 |
| Sex (males) + Body mass + Tarsus + df + logLik + AICc + delta + weight | 7 | 4.41 | 5.48 | 0.00 |
| Helpers + Body mass + Density + Group Size + df + logLik + AICc + delta + weight | 8 | 4.42 | 5.49 | 0.00 |
| Sex (males) + Density + Insect abundance + df + logLik + AICc + delta + weight | 7 | 4.43 | 5.51 | 0.00 |
| Density + Group Size + Insect abundance + df + logLik + AICc + delta + weight | 7 | 4.46 | 5.53 | 0.00 |
| Helpers + Sex (males) + Body mass + Log age + df + logLik + AICc + delta + weight | 8 | 4.48 | 5.55 | 0.00 |
| Helpers + Density + Group Size + Tarsus + df + logLik + AICc + delta + weight | 8 | 4.49 | 5.56 | 0.00 |
| Helpers + Density + Insect abundance + Tarsus + df + logLik + AICc + delta + weight | 8 | 4.49 | 5.57 | 0.00 |
| Sex (males) + Density + Group Size + Insect abundance + Tarsus + df + logLik + AICc + delta + weight | 9 | 4.50 | 5.57 | 0.00 |
| Helpers + Sex (males) + Body mass + Density + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 11 | 4.50 | 5.58 | 0.00 |
| Sex (males) + Body mass + Density + Group Size + Insect abundance + Log age + df + logLik + AICc + delta + weight | 10 | 4.59 | 5.66 | 0.00 |
| Body mass + Density + Insect abundance + Tarsus + df + logLik + AICc + delta + weight | 8 | 4.64 | 5.72 | 0.00 |
| Body mass + Log age + Tarsus + df + logLik + AICc + delta + weight | 7 | 4.67 | 5.75 | 0.00 |
| Helpers + Body mass + Density + Tarsus + df + logLik + AICc + delta + weight | 8 | 4.70 | 5.77 | 0.00 |
| Helpers + Sex (males) + Body mass + Density + Insect abundance + Tarsus + df + logLik + AICc + delta + weight | 10 | 4.70 | 5.77 | 0.00 |
| Helpers + Sex (males) + Body mass + Density + Insect abundance + df + logLik + AICc + delta + weight | 9 | 4.72 | 5.79 | 0.00 |
| Sex (males) + Body mass + df + logLik + AICc + delta + weight | 6 | 4.73 | 5.80 | 0.00 |
| Helpers + Insect abundance + Log age + df + logLik + AICc + delta + weight | 7 | 4.73 | 5.80 | 0.00 |
| Sex (males) + Group Size + Log age + Tarsus + df + logLik + AICc + delta + weight | 8 | 4.74 | 5.81 | 0.00 |
| Helpers + Body mass + Density + Group Size + Insect abundance + Log age + df + logLik + AICc + delta + weight | 10 | 4.76 | 5.83 | 0.00 |
| Helpers + Sex (males) + Body mass + Density + Group Size + df + logLik + AICc + delta + weight | 9 | 4.76 | 5.83 | 0.00 |
| Body mass + Group Size + Log age + df + logLik + AICc + delta + weight | 7 | 4.80 | 5.87 | 0.00 |
| Body mass + Insect abundance + Log age + df + logLik + AICc + delta + weight | 7 | 4.80 | 5.87 | 0.00 |
| Sex (males) + Density + Group Size + df + logLik + AICc + delta + weight | 7 | 4.82 | 5.90 | 0.00 |
| Group Size + Log age + Tarsus + df + logLik + AICc + delta + weight | 7 | 4.82 | 5.90 | 0.00 |
| Helpers + Sex (males) + Density + Group Size + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 11 | 4.82 | 5.90 | 0.00 |
| Helpers + Sex (males) + Body mass + Density + Group Size + Log age + Tarsus + df + logLik + AICc + delta + weight | 11 | 4.83 | 5.91 | 0.00 |
| Helpers + Density + Group Size + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 10 | 4.83 | 5.91 | 0.00 |
| Sex (males) + Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 8 | 4.84 | 5.92 | 0.00 |
| Helpers + Sex (males) + Body mass + Density + Group Size + Tarsus + df + logLik + AICc + delta + weight | 10 | 4.86 | 5.94 | 0.00 |
| Insect abundance + Log age + Tarsus + df + logLik + AICc + delta + weight | 7 | 4.86 | 5.94 | 0.00 |
| Helpers + Density + Group Size + Insect abundance + df + logLik + AICc + delta + weight | 8 | 4.87 | 5.94 | 0.00 |

**Figure S1** RTL in relation to the time between sampling events. Lines and shaded areas represent fitted values and 95% confidence limits from general linear models. See also Figure 4, main text.



