### 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 |
| Age + Tarsus + TQ + Age x tarsus + Age x TQ | 10 | 695.73 | 0.00 | 0.05 |
| Age + Tarsus + TQ + Age x tarsus | 9 | 695.80 | 0.07 | 0.05 |
| Sex + Age + Tarsus + TQ + Age x tarsus + Age x TQ | 11 | 696.46 | 0.73 | 0.04 |
| Sex + Age + Tarsus + TQ + Age x tarsus | 10 | 696.53 | 0.80 | 0.04 |
| Age + Non helpers + Tarsus + TQ + Age x tarsus + Age x TQ | 11 | 696.98 | 1.25 | 0.03 |
| Age + Non helpers + Tarsus + TQ + Age x tarsus | 10 | 697.16 | 1.43 | 0.03 |
| Sex + Age + Tarsus + TQ + Age x sex + Age x tarsus | 11 | 697.40 | 1.67 | 0.02 |
| Sex + Age + Tarsus + TQ + Age x sex + Age x tarsus + Age x TQ | 12 | 697.46 | 1.73 | 0.02 |
| Sex + Age + Tarsus + TQ + Age x sex | 10 | 697.54 | 1.81 | 0.02 |
| Age + Body mass + Tarsus + TQ + Age x tarsus + Age x TQ | 11 | 697.57 | 1.84 | 0.02 |
| Age + Body mass + Tarsus + TQ + Age x tarsus | 10 | 697.66 | 1.93 | 0.02 |
| Sex + Age + Non helpers + Tarsus + TQ + Age x tarsus + Age x TQ | 12 | 697.72 | 1.99 | 0.02 |
| Helpers + Age + Tarsus + TQ + Age x tarsus + Age x TQ | 11 | 697.77 | 2.04 | 0.02 |
| Helpers + Age + Tarsus + TQ + Age x tarsus | 10 | 697.84 | 2.11 | 0.02 |
| Sex + Age + Non helpers + Tarsus + TQ + Age x tarsus | 11 | 697.89 | 2.16 | 0.02 |
| Sex + Age + Tarsus + TQ + Age x sex + Age x TQ | 11 | 698.14 | 2.42 | 0.02 |
| Sex + Age + Body mass + Tarsus + TQ + Age x tarsus + Age x TQ | 12 | 698.46 | 2.74 | 0.01 |
| Helpers + Sex + Age + Tarsus + TQ + Age x tarsus + Age x TQ | 12 | 698.50 | 2.77 | 0.01 |
| Sex + Age + Body mass + Tarsus + TQ + Age x tarsus | 11 | 698.54 | 2.81 | 0.01 |
| Helpers + Sex + Age + Tarsus + TQ + Age x tarsus | 11 | 698.57 | 2.84 | 0.01 |
| Age + Body mass + Non helpers + Tarsus + TQ + Age x tarsus + Age x TQ | 12 | 698.78 | 3.05 | 0.01 |
| Sex + Age + Non helpers + Tarsus + TQ + Age x sex + Age x tarsus + Age x TQ | 13 | 698.78 | 3.06 | 0.01 |
| Sex + Age + Non helpers + Tarsus + TQ + Age x sex + Age x tarsus | 12 | 698.83 | 3.10 | 0.01 |
| Helpers + Age + Tarsus + TQ + Age x helpers + Age x tarsus | 11 | 698.87 | 3.14 | 0.01 |
| Sex + Age + Non helpers + Tarsus + TQ + Age x sex | 11 | 698.88 | 3.16 | 0.01 |
| Helpers + Age + Tarsus + TQ + Age x helpers + Age x tarsus + Age x TQ | 12 | 698.92 | 3.19 | 0.01 |
| Age + Non helpers + Tarsus + TQ + Age x non helpers + Age x tarsus + Age x TQ | 12 | 698.94 | 3.21 | 0.01 |
| Age + Body mass + Non helpers + Tarsus + TQ + Age x tarsus | 11 | 698.98 | 3.25 | 0.01 |
| Helpers + Age + Non helpers + Tarsus + TQ + Age x tarsus + Age x TQ | 12 | 699.01 | 3.29 | 0.01 |
| Age + Tarsus + Age x tarsus | 8 | 699.03 | 3.30 | 0.01 |
| Age + Non helpers + Tarsus + TQ + Age x non helpers + Age x tarsus | 11 | 699.05 | 3.33 | 0.01 |
| Age + Body mass + Tarsus + TQ + Age x mass + Age x tarsus + Age x TQ | 12 | 699.17 | 3.44 | 0.01 |
| Helpers + Age + Non helpers + Tarsus + TQ + Age x tarsus | 11 | 699.19 | 3.47 | 0.01 |
| Age + Body mass + Tarsus + TQ + Age x mass + Age x tarsus | 11 | 699.31 | 3.59 | 0.01 |
| Sex + Age + Non helpers + Tarsus + TQ + Age x sex + Age x TQ | 12 | 699.39 | 3.66 | 0.01 |
| Helpers + Sex + Age + Tarsus + TQ + Age x sex + Age x tarsus | 12 | 699.44 | 3.71 | 0.01 |
| Sex + Age + Body mass + Tarsus + TQ + Age x sex + Age x tarsus | 12 | 699.46 | 3.73 | 0.01 |
| Helpers + Sex + Age + Tarsus + TQ + Age x sex + Age x tarsus + Age x TQ | 13 | 699.50 | 3.77 | 0.01 |
| Sex + Age + Body mass + Tarsus + TQ + Age x sex + Age x tarsus + Age x TQ | 13 | 699.52 | 3.79 | 0.01 |
| Sex + Age + Body mass + Tarsus + TQ + Age x sex | 11 | 699.56 | 3.83 | 0.01 |
| Helpers + Sex + Age + Tarsus + TQ + Age x sex | 11 | 699.57 | 3.84 | 0.01 |
| Helpers + Age + Body mass + Tarsus + TQ + Age x tarsus + Age x TQ | 12 | 699.60 | 3.87 | 0.01 |
| Helpers + Sex + Age + Tarsus + TQ + Age x helpers + Age x tarsus | 12 | 699.68 | 3.95 | 0.01 |
| Helpers + Age + Body mass + Tarsus + TQ + Age x tarsus | 11 | 699.69 | 3.96 | 0.01 |
| Sex + Age + Body mass + Non helpers + Tarsus + TQ + Age x tarsus + Age x TQ | 13 | 699.70 | 3.97 | 0.01 |
| Sex + Age + Tarsus + Age x tarsus | 9 | 699.70 | 3.97 | 0.01 |
| Sex + Age + Non helpers + Tarsus + TQ + Age x non helpers + Age x tarsus + Age x TQ | 13 | 699.70 | 3.98 | 0.01 |
| Helpers + Sex + Age + Tarsus + TQ + Age x helpers + Age x tarsus + Age x TQ | 13 | 699.73 | 4.00 | 0.01 |
| Helpers + Sex + Age + Non helpers + Tarsus + TQ + Age x tarsus + Age x TQ | 13 | 699.76 | 4.03 | 0.01 |
| Sex + Age + Non helpers + Tarsus + TQ + Age x non helpers + Age x tarsus | 12 | 699.82 | 4.09 | 0.01 |
| Sex + Age + Body mass + Non helpers + Tarsus + TQ + Age x tarsus | 12 | 699.88 | 4.16 | 0.01 |
| Helpers + Sex + Age + Non helpers + Tarsus + TQ + Age x tarsus | 12 | 699.93 | 4.20 | 0.01 |
| Helpers + Age + Non helpers + Tarsus + TQ + Age x helpers + Age x tarsus + Age x TQ | 13 | 700.14 | 4.41 | 0.01 |
| Sex + Age + Body mass + Tarsus + TQ + Age x sex + Age x TQ | 12 | 700.17 | 4.44 | 0.01 |
| Helpers + Sex + Age + Tarsus + TQ + Age x sex + Age x TQ | 12 | 700.18 | 4.45 | 0.01 |
| Helpers + Age + Non helpers + Tarsus + TQ + Age x helpers + Age x tarsus | 12 | 700.20 | 4.47 | 0.01 |
| Sex + Age + Body mass + Tarsus + TQ + Age x mass + Age x tarsus + Age x TQ | 13 | 700.26 | 4.53 | 0.01 |
| Sex + Age + Body mass + Tarsus + TQ + Age x mass + Age x tarsus | 12 | 700.37 | 4.64 | 0.01 |
| Age + Body mass + TQ + Age x mass | 9 | 700.40 | 4.68 | 0.01 |
| Age + Body mass + Non helpers + Tarsus + TQ + Age x mass + Age x tarsus + Age x TQ | 13 | 700.41 | 4.68 | 0.01 |
| Age + Non helpers + Tarsus + Age x tarsus | 9 | 700.46 | 4.73 | 0.00 |
| Helpers + Sex + Age + Body mass + Tarsus + TQ + Age x tarsus + Age x TQ | 13 | 700.50 | 4.78 | 0.00 |
| Helpers + Sex + Age + Body mass + Tarsus + TQ + Age x tarsus | 12 | 700.57 | 4.85 | 0.00 |
| Age + Body mass + Non helpers + Tarsus + TQ + Age x mass + Age x tarsus | 12 | 700.66 | 4.93 | 0.00 |
| Helpers + Sex + Age + Tarsus + TQ + Age x helpers + Age x sex + Age x tarsus | 13 | 700.67 | 4.95 | 0.00 |
| Sex + Age + Non helpers + Tarsus + TQ + Age x sex + Age x non helpers + Age x tarsus | 13 | 700.75 | 5.03 | 0.00 |
| Age + Body mass + Non helpers + Tarsus + TQ + Age x non helpers + Age x tarsus + Age x TQ | 13 | 700.76 | 5.04 | 0.00 |
| Sex + Age + Non helpers + Tarsus + TQ + Age x sex + Age x non helpers + Age x tarsus + Age x TQ | 14 | 700.77 | 5.04 | 0.00 |
| Sex + Age + Tarsus + Age x sex + Age x tarsus | 10 | 700.78 | 5.05 | 0.00 |
| Helpers + Age + Body mass + Tarsus + TQ + Age x helpers + Age x tarsus | 12 | 700.79 | 5.06 | 0.00 |
| Helpers + Age + Body mass + Non helpers + Tarsus + TQ + Age x tarsus + Age x TQ | 13 | 700.81 | 5.08 | 0.00 |
| Helpers + Age + Body mass + Tarsus + TQ + Age x helpers + Age x tarsus + Age x TQ | 13 | 700.82 | 5.09 | 0.00 |
| Helpers + Sex + Age + Non helpers + Tarsus + TQ + Age x sex + Age x tarsus + Age x TQ | 14 | 700.83 | 5.10 | 0.00 |
| Helpers + Sex + Age + Tarsus + TQ + Age x helpers + Age x sex + Age x tarsus + Age x TQ | 14 | 700.84 | 5.11 | 0.00 |
| Sex + Age + Body mass + Non helpers + Tarsus + TQ + Age x sex + Age x tarsus + Age x TQ | 14 | 700.84 | 5.11 | 0.00 |
| Sex + Age + Non helpers + Tarsus + TQ + Age x sex + Age x non helpers | 12 | 700.84 | 5.11 | 0.00 |
| Age + Body mass + TQ + Age x mass + Age x TQ | 10 | 700.85 | 5.12 | 0.00 |
| Sex + Age + Body mass + Tarsus + TQ + Age x sex + Age x mass | 12 | 700.86 | 5.13 | 0.00 |
| Helpers + Sex + Age + Non helpers + Tarsus + TQ + Age x sex + Age x tarsus | 13 | 700.87 | 5.14 | 0.00 |
| Sex + Age + Body mass + Non helpers + Tarsus + TQ + Age x sex + Age x tarsus | 13 | 700.88 | 5.16 | 0.00 |
| Helpers + Sex + Age + Tarsus + TQ + Age x helpers + Age x sex | 12 | 700.90 | 5.17 | 0.00 |
| Age + Body mass + Non helpers + Tarsus + TQ + Age x non helpers + Age x tarsus | 12 | 700.90 | 5.18 | 0.00 |
| Helpers + Sex + Age + Non helpers + Tarsus + TQ + Age x sex | 12 | 700.91 | 5.19 | 0.00 |
| Sex + Age + Body mass + Non helpers + Tarsus + TQ + Age x sex | 12 | 700.92 | 5.20 | 0.00 |
| Helpers + Sex + Age + Non helpers + Tarsus + TQ + Age x helpers + Age x tarsus + Age x TQ | 14 | 700.96 | 5.23 | 0.00 |
| Helpers + Age + Non helpers + Tarsus + TQ + Age x non helpers + Age x tarsus + Age x TQ | 13 | 700.98 | 5.25 | 0.00 |
| Helpers + Age + Body mass + Non helpers + Tarsus + TQ + Age x tarsus | 12 | 701.01 | 5.28 | 0.00 |
| Helpers + Sex + Age + Non helpers + Tarsus + TQ + Age x helpers + Age x tarsus | 13 | 701.01 | 5.29 | 0.00 |
| Age + Body mass + Tarsus + Age x tarsus | 9 | 701.04 | 5.31 | 0.00 |
| Helpers + Age + Tarsus + Age x tarsus | 9 | 701.06 | 5.33 | 0.00 |
| Sex + Age + Tarsus + TQ | 9 | 701.06 | 5.34 | 0.00 |
| Helpers + Age + Non helpers + Tarsus + TQ + Age x non helpers + Age x tarsus | 12 | 701.10 | 5.37 | 0.00 |
| Sex + Age + Tarsus + Age x sex | 9 | 701.10 | 5.38 | 0.00 |
| Sex + Age + Non helpers + Tarsus + Age x tarsus | 10 | 701.14 | 5.41 | 0.00 |
| Helpers + Age + Body mass + Tarsus + TQ + Age x mass + Age x tarsus + Age x TQ | 13 | 701.20 | 5.47 | 0.00 |
| Sex + Age + Body mass + Tarsus + TQ + Age x sex + Age x mass + Age x TQ | 13 | 701.25 | 5.52 | 0.00 |
| Helpers + Age + Body mass + Tarsus + TQ + Age x mass + Age x tarsus | 12 | 701.34 | 5.61 | 0.00 |
| Sex + Age + Non helpers + Tarsus + TQ + Age x sex + Age x non helpers + Age x TQ | 13 | 701.39 | 5.67 | 0.00 |
| Helpers + Sex + Age + Non helpers + Tarsus + TQ + Age x sex + Age x TQ | 13 | 701.42 | 5.69 | 0.00 |
| Sex + Age + Body mass + Non helpers + Tarsus + TQ + Age x sex + Age x TQ | 13 | 701.44 | 5.71 | 0.00 |
| Sex + Age + Body mass + Tarsus + TQ + Age x sex + Age x mass + Age x tarsus | 13 | 701.45 | 5.72 | 0.00 |
| Sex + Age + Body mass + Tarsus + TQ + Age x sex + Age x mass + Age x tarsus + Age x TQ | 14 | 701.48 | 5.76 | 0.00 |
| Helpers + Sex + Age + Body mass + Tarsus + TQ + Age x sex + Age x tarsus | 13 | 701.50 | 5.77 | 0.00 |
| Sex + Age + Body mass + Non helpers + Tarsus + TQ + Age x mass + Age x tarsus + Age x TQ | 14 | 701.51 | 5.78 | 0.00 |
| Helpers + Sex + Age + Body mass + Tarsus + TQ + Age x sex + Age x tarsus + Age x TQ | 14 | 701.57 | 5.84 | 0.00 |
| Helpers + Sex + Age + Body mass + Tarsus + TQ + Age x sex | 12 | 701.60 | 5.87 | 0.00 |
| Helpers + Sex + Age + Tarsus + TQ + Age x helpers + Age x sex + Age x TQ | 13 | 701.60 | 5.87 | 0.00 |
| Age + Body mass + Non helpers + TQ + Age x mass | 10 | 701.61 | 5.89 | 0.00 |
| Sex + Age + Body mass + Tarsus + TQ + Age x mass | 11 | 701.61 | 5.89 | 0.00 |
| Age + Body mass + Tarsus + TQ + Age x mass | 10 | 701.64 | 5.91 | 0.00 |
| Sex + Age + Body mass + TQ + Age x mass | 10 | 701.69 | 5.96 | 0.00 |
| Sex + Age + Body mass + Non helpers + Tarsus + TQ + Age x non helpers + Age x tarsus + Age x TQ | 14 | 701.70 | 5.97 | 0.00 |
| Helpers + Sex + Age + Body mass + Tarsus + TQ + Age x helpers + Age x tarsus | 13 | 701.72 | 5.99 | 0.00 |

**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 |
| z.RTL | 5 | 72.93 | 0.00 | 0.10 |
| Non helpers + z.RTL | 6 | 74.16 | 1.23 | 0.05 |
| Helpers + z.RTL | 6 | 74.27 | 1.34 | 0.05 |
| Body mass + z.RTL | 6 | 74.28 | 1.35 | 0.05 |
| z.RTL + TQ | 6 | 74.83 | 1.90 | 0.04 |
| Sex + z.RTL | 6 | 75.03 | 2.10 | 0.03 |
| Body mass + Non helpers + z.RTL | 7 | 75.10 | 2.17 | 0.03 |
| z.RTL + Tarsus | 6 | 75.14 | 2.21 | 0.03 |
| Age + z.RTL | 6 | 75.18 | 2.25 | 0.03 |
| Helpers + Non helpers + z.RTL | 7 | 75.46 | 2.53 | 0.03 |
| Helpers + Body mass + z.RTL | 7 | 75.61 | 2.68 | 0.03 |
| Non helpers + z.RTL + TQ | 7 | 76.09 | 3.16 | 0.02 |
| Body mass + z.RTL + TQ | 7 | 76.16 | 3.23 | 0.02 |
| Non helpers + z.RTL + Tarsus | 7 | 76.32 | 3.39 | 0.02 |
| Sex + Non helpers + z.RTL | 7 | 76.32 | 3.39 | 0.02 |
| Helpers + Body mass + Non helpers + z.RTL | 8 | 76.35 | 3.42 | 0.02 |
| Helpers + z.RTL + TQ | 7 | 76.36 | 3.43 | 0.02 |
| Helpers + Sex + z.RTL | 7 | 76.40 | 3.47 | 0.02 |
| Age + Non helpers + z.RTL | 7 | 76.45 | 3.52 | 0.02 |
| Helpers + Age + z.RTL | 7 | 76.48 | 3.55 | 0.02 |
| Helpers + z.RTL + Tarsus | 7 | 76.55 | 3.62 | 0.02 |
| Age + Body mass + z.RTL | 7 | 76.56 | 3.63 | 0.02 |
| Body mass + z.RTL + Tarsus | 7 | 76.57 | 3.64 | 0.02 |
| Sex + Body mass + z.RTL | 7 | 76.59 | 3.66 | 0.02 |
| Sex + z.RTL + TQ | 7 | 76.96 | 4.03 | 0.01 |
| Body mass + Non helpers + z.RTL + TQ | 8 | 76.97 | 4.04 | 0.01 |
| z.RTL + Tarsus + TQ | 7 | 77.06 | 4.13 | 0.01 |
| Age + z.RTL + TQ | 7 | 77.12 | 4.19 | 0.01 |
| Sex + Age + z.RTL | 7 | 77.33 | 4.40 | 0.01 |
| Sex + z.RTL + Tarsus | 7 | 77.33 | 4.40 | 0.01 |
| Sex + Body mass + Non helpers + z.RTL | 8 | 77.41 | 4.48 | 0.01 |
| Age + z.RTL + Tarsus | 7 | 77.44 | 4.51 | 0.01 |
| Age + Body mass + Non helpers + z.RTL | 8 | 77.45 | 4.52 | 0.01 |
| Body mass + Non helpers + z.RTL + Tarsus | 8 | 77.46 | 4.53 | 0.01 |
| Helpers + Non helpers + z.RTL + TQ | 8 | 77.58 | 4.66 | 0.01 |
| Helpers + Sex + Non helpers + z.RTL | 8 | 77.66 | 4.73 | 0.01 |
| Helpers + Body mass + z.RTL + TQ | 8 | 77.69 | 4.76 | 0.01 |
| Helpers + Non helpers + z.RTL + Tarsus | 8 | 77.72 | 4.79 | 0.01 |
| Helpers + Age + Non helpers + z.RTL | 8 | 77.81 | 4.88 | 0.01 |
| Helpers + Age + Body mass + z.RTL | 8 | 77.81 | 4.88 | 0.01 |
| Helpers + Body mass + z.RTL + Tarsus | 8 | 77.91 | 4.98 | 0.01 |
| Helpers + Sex + Body mass + z.RTL | 8 | 77.96 | 5.03 | 0.01 |
| Helpers + Age + z.RTL + Age x helpers | 8 | 78.18 | 5.25 | 0.01 |
| Non helpers + z.RTL + Tarsus + TQ | 8 | 78.25 | 5.32 | 0.01 |
| Sex + Non helpers + z.RTL + TQ | 8 | 78.28 | 5.35 | 0.01 |
| Helpers + Body mass + Non helpers + z.RTL + TQ | 9 | 78.44 | 5.51 | 0.01 |
| Age + Non helpers + z.RTL + TQ | 8 | 78.44 | 5.51 | 0.01 |
| Age + Body mass + z.RTL + TQ | 8 | 78.45 | 5.53 | 0.01 |
| Body mass + z.RTL + Tarsus + TQ | 8 | 78.51 | 5.58 | 0.01 |
| Sex + Body mass + z.RTL + TQ | 8 | 78.51 | 5.58 | 0.01 |
| Helpers + Sex + z.RTL + TQ | 8 | 78.52 | 5.59 | 0.01 |
| Age + Non helpers + z.RTL + Tarsus | 8 | 78.60 | 5.67 | 0.01 |
| Helpers + Age + z.RTL + TQ | 8 | 78.60 | 5.67 | 0.01 |
| Sex + Non helpers + z.RTL + Tarsus | 8 | 78.64 | 5.71 | 0.01 |
| Sex + Age + Non helpers + z.RTL | 8 | 78.65 | 5.72 | 0.01 |
| Helpers + z.RTL + Tarsus + TQ | 8 | 78.67 | 5.74 | 0.01 |
| Helpers + Sex + Age + z.RTL | 8 | 78.69 | 5.76 | 0.01 |
| Helpers + Sex + Body mass + Non helpers + z.RTL | 9 | 78.71 | 5.78 | 0.01 |
| Helpers + Age + Body mass + Non helpers + z.RTL | 9 | 78.73 | 5.80 | 0.01 |
| Helpers + Sex + z.RTL + Tarsus | 8 | 78.74 | 5.81 | 0.01 |
| Helpers + Body mass + Non helpers + z.RTL + Tarsus | 9 | 78.74 | 5.81 | 0.01 |
| Age + Body mass + z.RTL + Age x mass | 8 | 78.75 | 5.83 | 0.01 |
| Age + Non helpers + z.RTL + Age x non helpers | 8 | 78.81 | 5.88 | 0.01 |
| Helpers + Age + z.RTL + Tarsus | 8 | 78.84 | 5.91 | 0.00 |
| Age + Body mass + z.RTL + Tarsus | 8 | 78.88 | 5.95 | 0.00 |
| Sex + Age + Body mass + z.RTL | 8 | 78.91 | 5.98 | 0.00 |
| Sex + Body mass + z.RTL + Tarsus | 8 | 78.93 | 6.00 | 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.

