Table 1: Main model set - all observations

| Model | Velocity of climate change | Dispersal rate | Parameter | Estimate | Std. Error | t-value | p-value | R2 | n | K | LL | AICc | ΔAICc | AIC weight |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Minimum rate | 3rd quartile | Maximum | Intercept | 0.51 | 0.2 | 2.58 | 0.01 | 0.11 | 426 | 3 | -1111.05 | 2228.15 | 0 | 0.33 |
| Minimum rate | 3rd quartile | Maximum | Minimum rate | 0.38 | 0.05 | 7.06 | 0 | 0.11 | 426 | 3 | -1111.05 | 2228.15 | 0 | 0.33 |
| Minimum rate | Mean | Maximum | Intercept | 0.58 | 0.19 | 3.01 | 0 | 0.1 | 426 | 3 | -1112.27 | 2230.6 | 2.44 | 0.1 |
| Minimum rate | Mean | Maximum | Minimum rate | 0.47 | 0.07 | 6.86 | 0 | 0.1 | 426 | 3 | -1112.27 | 2230.6 | 2.44 | 0.1 |
| Velocity of climate change | 3rd quartile | - | Intercept | 0.39 | 0.21 | 1.87 | 0.06 | 0.1 | 426 | 3 | -1112.28 | 2230.62 | 2.47 | 0.1 |
| Velocity of climate change | 3rd quartile | - | Velocity of climate change | 0.39 | 0.06 | 6.86 | 0 | 0.1 | 426 | 3 | -1112.28 | 2230.62 | 2.47 | 0.1 |
| Velocity of climate change | Mean | - | Intercept | 0.53 | 0.2 | 2.68 | 0.01 | 0.1 | 426 | 3 | -1112.31 | 2230.67 | 2.52 | 0.09 |
| Velocity of climate change | Mean | - | Velocity of climate change | 0.47 | 0.07 | 6.86 | 0 | 0.1 | 426 | 3 | -1112.31 | 2230.67 | 2.52 | 0.09 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Maximum | Intercept | 0.42 | 0.2 | 2.07 | 0.04 | 0.11 | 426 | 5 | -1110.42 | 2230.99 | 2.83 | 0.08 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Maximum | Potential dispersal rate | 0 | 0 | 1.48 | 0.14 | 0.11 | 426 | 5 | -1110.42 | 2230.99 | 2.83 | 0.08 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Maximum | Velocity of climate change | 0.54 | 0.08 | 6.53 | 0 | 0.11 | 426 | 5 | -1110.42 | 2230.99 | 2.83 | 0.08 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Maximum | Potential dispersal rate:velocity of climate change | 0 | 0 | -1.92 | 0.05 | 0.11 | 426 | 5 | -1110.42 | 2230.99 | 2.83 | 0.08 |
| Minimum rate | 3rd quartile | Median | Intercept | 0.55 | 0.2 | 2.79 | 0.01 | 0.1 | 426 | 3 | -1112.93 | 2231.92 | 3.77 | 0.05 |
| Minimum rate | 3rd quartile | Median | Minimum rate | 0.44 | 0.06 | 6.75 | 0 | 0.1 | 426 | 3 | -1112.93 | 2231.92 | 3.77 | 0.05 |
| Potential dispersal rate and velocity of climate change (interactive) | 3rd quartile | Maximum | Intercept | 0.29 | 0.22 | 1.34 | 0.18 | 0.11 | 426 | 5 | -1110.97 | 2232.09 | 3.94 | 0.05 |
| Potential dispersal rate and velocity of climate change (interactive) | 3rd quartile | Maximum | Potential dispersal rate | 0 | 0 | 1.43 | 0.15 | 0.11 | 426 | 5 | -1110.97 | 2232.09 | 3.94 | 0.05 |
| Potential dispersal rate and velocity of climate change (interactive) | 3rd quartile | Maximum | Velocity of climate change | 0.42 | 0.07 | 6.41 | 0 | 0.11 | 426 | 5 | -1110.97 | 2232.09 | 3.94 | 0.05 |
| Potential dispersal rate and velocity of climate change (interactive) | 3rd quartile | Maximum | Potential dispersal rate:velocity of climate change | 0 | 0 | -1.61 | 0.11 | 0.11 | 426 | 5 | -1110.97 | 2232.09 | 3.94 | 0.05 |
| Potential dispersal rate and velocity of climate change (additive) | 3rd quartile | Maximum | Intercept | 0.39 | 0.21 | 1.85 | 0.06 | 0.1 | 426 | 4 | -1112.27 | 2232.64 | 4.49 | 0.04 |
| Potential dispersal rate and velocity of climate change (additive) | 3rd quartile | Maximum | Potential dispersal rate | 0 | 0 | 0.13 | 0.9 | 0.1 | 426 | 4 | -1112.27 | 2232.64 | 4.49 | 0.04 |
| Potential dispersal rate and velocity of climate change (additive) | 3rd quartile | Maximum | Velocity of climate change | 0.38 | 0.06 | 6.24 | 0 | 0.1 | 426 | 4 | -1112.27 | 2232.64 | 4.49 | 0.04 |
| Potential dispersal rate and velocity of climate change (additive) | Mean | Maximum | Intercept | 0.53 | 0.2 | 2.69 | 0.01 | 0.1 | 426 | 4 | -1112.28 | 2232.66 | 4.51 | 0.04 |
| Potential dispersal rate and velocity of climate change (additive) | Mean | Maximum | Potential dispersal rate | 0 | 0 | -0.21 | 0.83 | 0.1 | 426 | 4 | -1112.28 | 2232.66 | 4.51 | 0.04 |
| Potential dispersal rate and velocity of climate change (additive) | Mean | Maximum | Velocity of climate change | 0.48 | 0.08 | 6.24 | 0 | 0.1 | 426 | 4 | -1112.28 | 2232.66 | 4.51 | 0.04 |
| Potential dispersal rate and velocity of climate change (additive) | Mean | Median | Intercept | 0.53 | 0.2 | 2.68 | 0.01 | 0.1 | 426 | 4 | -1112.29 | 2232.67 | 4.51 | 0.03 |
| Potential dispersal rate and velocity of climate change (additive) | Mean | Median | Potential dispersal rate | 0 | 0 | -0.2 | 0.84 | 0.1 | 426 | 4 | -1112.29 | 2232.67 | 4.51 | 0.03 |
| Potential dispersal rate and velocity of climate change (additive) | Mean | Median | Velocity of climate change | 0.48 | 0.07 | 6.77 | 0 | 0.1 | 426 | 4 | -1112.29 | 2232.67 | 4.51 | 0.03 |
| Potential dispersal rate and velocity of climate change (additive) | 3rd quartile | Median | Intercept | 0.39 | 0.21 | 1.84 | 0.07 | 0.1 | 426 | 4 | -1112.28 | 2232.66 | 4.51 | 0.04 |
| Potential dispersal rate and velocity of climate change (additive) | 3rd quartile | Median | Potential dispersal rate | 0 | 0 | 0.02 | 0.99 | 0.1 | 426 | 4 | -1112.28 | 2232.66 | 4.51 | 0.04 |
| Potential dispersal rate and velocity of climate change (additive) | 3rd quartile | Median | Velocity of climate change | 0.38 | 0.06 | 6.77 | 0 | 0.1 | 426 | 4 | -1112.28 | 2232.66 | 4.51 | 0.04 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Median | Intercept | 0.5 | 0.2 | 2.5 | 0.01 | 0.1 | 426 | 5 | -1111.66 | 2233.45 | 5.3 | 0.02 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Median | Potential dispersal rate | 0 | 0.01 | 0.92 | 0.36 | 0.1 | 426 | 5 | -1111.66 | 2233.45 | 5.3 | 0.02 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Median | Velocity of climate change | 0.51 | 0.08 | 6.73 | 0 | 0.1 | 426 | 5 | -1111.66 | 2233.45 | 5.3 | 0.02 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Median | Potential dispersal rate:velocity of climate change | 0 | 0 | -1.12 | 0.26 | 0.1 | 426 | 5 | -1111.66 | 2233.45 | 5.3 | 0.02 |
| Minimum rate | Mean | Median | Intercept | 0.61 | 0.19 | 3.18 | 0 | 0.09 | 426 | 3 | -1113.91 | 2233.87 | 5.72 | 0.02 |
| Minimum rate | Mean | Median | Minimum rate | 0.51 | 0.08 | 6.59 | 0 | 0.09 | 426 | 3 | -1113.91 | 2233.87 | 5.72 | 0.02 |
| Potential dispersal rate and velocity of climate change (interactive) | 3rd quartile | Median | Intercept | 0.37 | 0.21 | 1.75 | 0.08 | 0.1 | 426 | 5 | -1112.18 | 2234.51 | 6.36 | 0.01 |
| Potential dispersal rate and velocity of climate change (interactive) | 3rd quartile | Median | Potential dispersal rate | 0 | 0.01 | 0.42 | 0.67 | 0.1 | 426 | 5 | -1112.18 | 2234.51 | 6.36 | 0.01 |
| Potential dispersal rate and velocity of climate change (interactive) | 3rd quartile | Median | Velocity of climate change | 0.39 | 0.06 | 6.45 | 0 | 0.1 | 426 | 5 | -1112.18 | 2234.51 | 6.36 | 0.01 |
| Potential dispersal rate and velocity of climate change (interactive) | 3rd quartile | Median | Potential dispersal rate:velocity of climate change | 0 | 0 | -0.44 | 0.66 | 0.1 | 426 | 5 | -1112.18 | 2234.51 | 6.36 | 0.01 |
| Potential dispersal rate | - | Maximum | Intercept | 1.12 | 0.18 | 6.17 | 0 | 0.02 | 426 | 3 | -1131.05 | 2268.16 | 40.01 | 0 |
| Potential dispersal rate | - | Maximum | Potential dispersal rate | 0 | 0 | 2.7 | 0.01 | 0.02 | 426 | 3 | -1131.05 | 2268.16 | 40.01 | 0 |
| Potential dispersal rate | - | Median | Intercept | 1.26 | 0.18 | 7.1 | 0 | 0 | 426 | 3 | -1134.21 | 2274.48 | 46.33 | 0 |
| Potential dispersal rate | - | Median | Potential dispersal rate | 0 | 0 | 0.98 | 0.33 | 0 | 426 | 3 | -1134.21 | 2274.48 | 46.33 | 0 |