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 | 90th percentile | Maximum | Intercept | 0.46 | 0.2 | 2.3 | 0.02 | 0.11 | 418 | 3 | -1085.17 | 2176.39 | 0 | 0.61 |
| Minimum rate | 90th percentile | Maximum | Minimum rate | 0.32 | 0.04 | 7.14 | 0 | 0.11 | 418 | 3 | -1085.17 | 2176.39 | 0 | 0.61 |
| Velocity of climate change | 90th percentile | - | Intercept | 0.27 | 0.22 | 1.23 | 0.22 | 0.1 | 418 | 3 | -1086.91 | 2179.89 | 3.5 | 0.11 |
| Velocity of climate change | 90th percentile | - | Velocity of climate change | 0.32 | 0.05 | 6.86 | 0 | 0.1 | 418 | 3 | -1086.91 | 2179.89 | 3.5 | 0.11 |
| Potential dispersal rate and velocity of climate change (interactive) | 90th percentile | Maximum | Intercept | 0.17 | 0.23 | 0.74 | 0.46 | 0.11 | 418 | 5 | -1085.6 | 2181.35 | 4.96 | 0.05 |
| Potential dispersal rate and velocity of climate change (interactive) | 90th percentile | Maximum | Potential dispersal rate | 0 | 0 | 1.49 | 0.14 | 0.11 | 418 | 5 | -1085.6 | 2181.35 | 4.96 | 0.05 |
| Potential dispersal rate and velocity of climate change (interactive) | 90th percentile | Maximum | Velocity of climate change | 0.35 | 0.05 | 6.46 | 0 | 0.11 | 418 | 5 | -1085.6 | 2181.35 | 4.96 | 0.05 |
| Potential dispersal rate and velocity of climate change (interactive) | 90th percentile | Maximum | Potential dispersal rate:velocity of climate change | 0 | 0 | -1.61 | 0.11 | 0.11 | 418 | 5 | -1085.6 | 2181.35 | 4.96 | 0.05 |
| Potential dispersal rate and velocity of climate change (additive) | 90th percentile | Maximum | Intercept | 0.27 | 0.22 | 1.22 | 0.22 | 0.1 | 418 | 4 | -1086.9 | 2181.9 | 5.51 | 0.04 |
| Potential dispersal rate and velocity of climate change (additive) | 90th percentile | Maximum | Potential dispersal rate | 0 | 0 | 0.15 | 0.88 | 0.1 | 418 | 4 | -1086.9 | 2181.9 | 5.51 | 0.04 |
| Potential dispersal rate and velocity of climate change (additive) | 90th percentile | Maximum | Velocity of climate change | 0.32 | 0.05 | 6.27 | 0 | 0.1 | 418 | 4 | -1086.9 | 2181.9 | 5.51 | 0.04 |
| Minimum rate | Mean | Maximum | Intercept | 0.58 | 0.19 | 3.03 | 0 | 0.1 | 418 | 3 | -1087.93 | 2181.91 | 5.52 | 0.04 |
| Minimum rate | Mean | Maximum | Minimum rate | 0.46 | 0.07 | 6.7 | 0 | 0.1 | 418 | 3 | -1087.93 | 2181.91 | 5.52 | 0.04 |
| Potential dispersal rate and velocity of climate change (additive) | 90th percentile | Median | Intercept | 0.27 | 0.22 | 1.24 | 0.22 | 0.1 | 418 | 4 | -1086.9 | 2181.91 | 5.52 | 0.04 |
| Potential dispersal rate and velocity of climate change (additive) | 90th percentile | Median | Potential dispersal rate | 0 | 0 | -0.14 | 0.89 | 0.1 | 418 | 4 | -1086.9 | 2181.91 | 5.52 | 0.04 |
| Potential dispersal rate and velocity of climate change (additive) | 90th percentile | Median | Velocity of climate change | 0.33 | 0.05 | 6.8 | 0 | 0.1 | 418 | 4 | -1086.9 | 2181.91 | 5.52 | 0.04 |
| Velocity of climate change | Mean | - | Intercept | 0.53 | 0.2 | 2.68 | 0.01 | 0.1 | 418 | 3 | -1088.27 | 2182.59 | 6.2 | 0.03 |
| Velocity of climate change | Mean | - | Velocity of climate change | 0.47 | 0.07 | 6.64 | 0 | 0.1 | 418 | 3 | -1088.27 | 2182.59 | 6.2 | 0.03 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Maximum | Intercept | 0.42 | 0.21 | 2.06 | 0.04 | 0.1 | 418 | 5 | -1086.25 | 2182.65 | 6.26 | 0.03 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Maximum | Potential dispersal rate | 0 | 0 | 1.55 | 0.12 | 0.1 | 418 | 5 | -1086.25 | 2182.65 | 6.26 | 0.03 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Maximum | Velocity of climate change | 0.53 | 0.08 | 6.36 | 0 | 0.1 | 418 | 5 | -1086.25 | 2182.65 | 6.26 | 0.03 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Maximum | Potential dispersal rate:velocity of climate change | 0 | 0 | -1.99 | 0.05 | 0.1 | 418 | 5 | -1086.25 | 2182.65 | 6.26 | 0.03 |
| Potential dispersal rate and velocity of climate change (interactive) | 90th percentile | Median | Intercept | 0.25 | 0.22 | 1.1 | 0.27 | 0.1 | 418 | 5 | -1086.62 | 2183.39 | 7 | 0.02 |
| Potential dispersal rate and velocity of climate change (interactive) | 90th percentile | Median | Potential dispersal rate | 0 | 0.01 | 0.66 | 0.51 | 0.1 | 418 | 5 | -1086.62 | 2183.39 | 7 | 0.02 |
| Potential dispersal rate and velocity of climate change (interactive) | 90th percentile | Median | Velocity of climate change | 0.34 | 0.05 | 6.67 | 0 | 0.1 | 418 | 5 | -1086.62 | 2183.39 | 7 | 0.02 |
| Potential dispersal rate and velocity of climate change (interactive) | 90th percentile | Median | Potential dispersal rate:velocity of climate change | 0 | 0 | -0.75 | 0.45 | 0.1 | 418 | 5 | -1086.62 | 2183.39 | 7 | 0.02 |
| Potential dispersal rate and velocity of climate change (additive) | Mean | Median | Intercept | 0.54 | 0.2 | 2.7 | 0.01 | 0.1 | 418 | 4 | -1088.2 | 2184.5 | 8.11 | 0.01 |
| Potential dispersal rate and velocity of climate change (additive) | Mean | Median | Potential dispersal rate | 0 | 0 | -0.36 | 0.72 | 0.1 | 418 | 4 | -1088.2 | 2184.5 | 8.11 | 0.01 |
| Potential dispersal rate and velocity of climate change (additive) | Mean | Median | Velocity of climate change | 0.47 | 0.07 | 6.58 | 0 | 0.1 | 418 | 4 | -1088.2 | 2184.5 | 8.11 | 0.01 |
| Potential dispersal rate and velocity of climate change (additive) | Mean | Maximum | Intercept | 0.53 | 0.2 | 2.69 | 0.01 | 0.1 | 418 | 4 | -1088.24 | 2184.57 | 8.18 | 0.01 |
| Potential dispersal rate and velocity of climate change (additive) | Mean | Maximum | Potential dispersal rate | 0 | 0 | -0.25 | 0.8 | 0.1 | 418 | 4 | -1088.24 | 2184.57 | 8.18 | 0.01 |
| Potential dispersal rate and velocity of climate change (additive) | Mean | Maximum | Velocity of climate change | 0.48 | 0.08 | 6.03 | 0 | 0.1 | 418 | 4 | -1088.24 | 2184.57 | 8.18 | 0.01 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Median | Intercept | 0.5 | 0.2 | 2.5 | 0.01 | 0.1 | 418 | 5 | -1087.34 | 2184.82 | 8.43 | 0.01 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Median | Potential dispersal rate | 0.01 | 0.01 | 1 | 0.32 | 0.1 | 418 | 5 | -1087.34 | 2184.82 | 8.43 | 0.01 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Median | Velocity of climate change | 0.5 | 0.08 | 6.65 | 0 | 0.1 | 418 | 5 | -1087.34 | 2184.82 | 8.43 | 0.01 |
| Potential dispersal rate and velocity of climate change (interactive) | Mean | Median | Potential dispersal rate:velocity of climate change | 0 | 0 | -1.31 | 0.19 | 0.1 | 418 | 5 | -1087.34 | 2184.82 | 8.43 | 0.01 |
| Minimum rate | 90th percentile | Median | Intercept | 0.55 | 0.2 | 2.77 | 0.01 | 0.09 | 418 | 3 | -1089.54 | 2185.14 | 8.75 | 0.01 |
| Minimum rate | 90th percentile | Median | Minimum rate | 0.36 | 0.06 | 6.43 | 0 | 0.09 | 418 | 3 | -1089.54 | 2185.14 | 8.75 | 0.01 |
| Minimum rate | Mean | Median | Intercept | 0.63 | 0.19 | 3.26 | 0 | 0.09 | 418 | 3 | -1089.96 | 2185.98 | 9.59 | 0.01 |
| Minimum rate | Mean | Median | Minimum rate | 0.49 | 0.08 | 6.36 | 0 | 0.09 | 418 | 3 | -1089.96 | 2185.98 | 9.59 | 0.01 |
| Potential dispersal rate | - | Maximum | Intercept | 1.12 | 0.18 | 6.19 | 0 | 0.02 | 418 | 3 | -1105.8 | 2217.65 | 41.26 | 0 |
| Potential dispersal rate | - | Maximum | Potential dispersal rate | 0 | 0 | 2.66 | 0.01 | 0.02 | 418 | 3 | -1105.8 | 2217.65 | 41.26 | 0 |
| Potential dispersal rate | - | Median | Intercept | 1.25 | 0.18 | 7.12 | 0 | 0 | 418 | 3 | -1108.96 | 2223.98 | 47.59 | 0 |
| Potential dispersal rate | - | Median | Potential dispersal rate | 0 | 0 | 0.85 | 0.39 | 0 | 418 | 3 | -1108.96 | 2223.98 | 47.59 | 0 |