|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| transposition\_rate | exision\_rate | selection\_a | selection\_b | sex\_lost\_TEs | asex\_lost\_TEs |
| 1.00E-06 | 5.00E-07 | 1.00E-04 | 0 | 6.5 | 2 |
| 1.00E-05 | 5.00E-07 | 1.00E-04 | 0 | 6.7 | 1.5 |
| 1.00E-04 | 5.00E-07 | 1.00E-04 | 0 | 3.5 | -0.8 |
| 1.00E-06 | 1.00E-06 | 1.00E-04 | 0 | 8.1 | 2.2 |
| 1.00E-05 | 1.00E-06 | 1.00E-04 | 0 | 7.8 | 2.3 |
| 1.00E-04 | 1.00E-06 | 1.00E-04 | 0 | 5.7 | -0.1 |
| 1.00E-06 | 5.00E-05 | 1.00E-04 | 0 | 28.6 | 17 |
| 1.00E-05 | 5.00E-05 | 1.00E-04 | 0 | 21.9 | 13.1 |
| 1.00E-04 | 5.00E-05 | 1.00E-04 | 0 | 19.4 | 11 |
| 1.00E-06 | 5.00E-07 | 5.10E-04 | 0 | 6.7 | 1.9 |
| 1.00E-05 | 5.00E-07 | 5.10E-04 | 0 | 6.4 | 1.6 |
| 1.00E-04 | 5.00E-07 | 5.10E-04 | 0 | 4.3 | -0.2 |
| 1.00E-06 | 1.00E-06 | 5.10E-04 | 0 | 9.1 | 2.5 |
| 1.00E-05 | 1.00E-06 | 5.10E-04 | 0 | 8.2 | 2.4 |
| 1.00E-04 | 1.00E-06 | 5.10E-04 | 0 | 6.3 | 0.5 |
| 1.00E-06 | 5.00E-05 | 5.10E-04 | 0 | 22.7 | 14 |
| 1.00E-05 | 5.00E-05 | 5.10E-04 | 0 | 22.6 | 13.6 |
| 1.00E-04 | 5.00E-05 | 5.10E-04 | 0 | 20.6 | 11.3 |
| 1.00E-06 | 5.00E-07 | 1.00E-04 | 0.00039 | 6.5 | 2 |
| 1.00E-05 | 5.00E-07 | 1.00E-04 | 0.00039 | 6.7 | 1.5 |
| 1.00E-04 | 5.00E-07 | 1.00E-04 | 0.00039 | 3.5 | -0.8 |
| 1.00E-06 | 1.00E-06 | 1.00E-04 | 0.00039 | 8.1 | 2.2 |
| 1.00E-05 | 1.00E-06 | 1.00E-04 | 0.00039 | 7.8 | 2.3 |
| 1.00E-04 | 1.00E-06 | 1.00E-04 | 0.00039 | 5.7 | -0.1 |
| 1.00E-06 | 5.00E-05 | 1.00E-04 | 0.00039 | 28.6 | 17 |
| 1.00E-05 | 5.00E-05 | 1.00E-04 | 0.00039 | 21.9 | 13.1 |
| 1.00E-04 | 5.00E-05 | 1.00E-04 | 0.00039 | 19.4 | 11 |
| 1.00E-06 | 5.00E-07 | 5.10E-04 | 0.00039 | 6.7 | 1.9 |
| 1.00E-05 | 5.00E-07 | 5.10E-04 | 0.00039 | 6.4 | 1.6 |
| 1.00E-04 | 5.00E-07 | 5.10E-04 | 0.00039 | 4.3 | -0.2 |
| **1.00E-06** | **1.00E-06** | **5.10E-04** | **0.00039** | **9.1** | **2.5** |
| 1.00E-05 | 1.00E-06 | 5.10E-04 | 0.00039 | 8.2 | 2.4 |
| 1.00E-04 | 1.00E-06 | 5.10E-04 | 0.00039 | 6.3 | 0.5 |
| 1.00E-06 | 5.00E-05 | 5.10E-04 | 0.00039 | 22.7 | 14 |
| 1.00E-05 | 5.00E-05 | 5.10E-04 | 0.00039 | 22.6 | 13.6 |
| 1.00E-04 | 5.00E-05 | 5.10E-04 | 0.00039 | 20.6 | 11.3 |

**Supplementary file 2A.** Explored parameter space of the simulations as pertinent for yeast (empirically determined values in bold). Selection\_a and selection\_b are selection coefficients for linear fitness effects and epistasis, respectively. Lost\_TEs refers to the total number of TE lost after 1000 generations (averaged over ten replicates).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| init\_f | selection\_a | selection\_b | sex\_lost\_TEs | asex\_lost\_TEs |
| 0.01 | 2.00E-04 | 0 | 0.6 | 1.2 |
| 0.01 | 3.00E-04 | 0 | 0.7 | 2.7 |
| 0.01 | 4.00E-04 | 0 | 0.6 | 5.3 |
| **0.01** | **0.000425** | **0** | **0.9** | **6.2** |
| **0.01** | **0.00045** | **0** | **0.7** | **6.6** |
| **0.01** | **0.000475** | **0** | **0.8** | **10.3** |
| **0.01** | **5.00E-04** | **0** | **1** | **9.9** |
| 0.01 | 5.00E-04 | 1.00E-06 | 0.3 | 0.3 |
| 0.01 | 1.00E-03 | 1.00E-06 | 0.6 | 0.9 |
| 0.01 | 2.00E-03 | 1.00E-06 | 1.3 | 5.1 |
| 0.01 | 2.00E-04 | 1.00E-05 | 1.3 | 15.6 |
| 0.01 | 3.00E-04 | 1.00E-05 | 1.2 | 17 |
| 0.01 | 4.00E-04 | 1.00E-05 | 2.2 | 20.1 |
| 0.01 | 5.00E-04 | 1.00E-05 | 2.2 | 22.7 |
| 0.1 | 2.00E-04 | 0.00E+00 | 3.4 | 7.6 |
| 0.1 | 3.00E-04 | 0.00E+00 | 4 | 12.6 |
| 0.1 | 4.00E-04 | 0.00E+00 | 4.9 | 16.9 |
| 0.1 | 5.00E-04 | 0 | 6.4 | 20 |
| 0.1 | 2.00E-04 | 1.00E-05 | 7.6 | 22.4 |
| 0.1 | 3.00E-04 | 1.00E-05 | 8.8 | 23.5 |
| 0.1 | 4.00E-04 | 1.00E-05 | 10.6 | 24.9 |
| 0.1 | 5.00E-04 | 1.00E-05 | 11.9 | 26.1 |

**Supplementary file 2B.** Explored parameter space for simulations including a modifier allele. Highlighted is the simulation closest to empirical observations. Init\_f is the frequency of the modifier at the start of the simulations. Selection\_a and selection\_b are selection coefficients for linear fitness effects and epistasis, respectively. Lost\_TEs refers to the total number of TE lost after 1000 generations (averaged over ten replicates). The bold lines refer to parameter combinations that generate results close to the observed empirical values.