|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year** | **turnover**  **metric** | **model** | **Linear term** | **Linear standard**  **error** | **Quadratic term** | **Quadratic standard error** | **R2** | **P** | **AIC** |
| 2013 | *βrw* | linear | 0.016 | 0.014 | na | na | 0.135 | 0.2962 | -9.0 |
| 2013 | *βrw* | **non-linear** | **0.131** | **0.050** | **-0.0105** | **0.004** | **0.5188** | **0.07727** | **-12.9** |
| 2013 | *βs* | **linear** | **-0.020** | **0.006** | **na** | **na** | **0.5392** | **0.0156** | **-24.7** |
| 2013 | *βs* | non-linear | -0.024 | 0.254 | -0.0040 | 0.002 | 0.6825 | 0.01894 | **-**26.4 |
| 2013 | *βst* | **linear** | **-0.028** | **0.008** | **na** | **na** | **0.6229** | **0.006632** | **-20.8** |
| 2013 | *βst* | non-linear | -0.036 | 0.037 | 0.0007 | 0.003 | 0.6254 | 0.03217 | -18.8 |
| 2013 | *βint* | linear | -0.013 | 0.014 | na | na | 0.09883 | 0.3763 | -9.7 |
| 2013 | *βint* | non-linear | 0.095 | 0.050 | -0.0098 | 0.004 | 0.4712 | 0.1076 | -13.1 |
| 2014 | *βrw* | linear | -0.015 | 0.009 | na | na | 0.1921 | 0.1169 | -13.6 |
| 2014 | *βrw* | **non-linear** | **0.074** | **0.031** | **-0.0055** | **0.002** | **0.5443** | **0.01326** | **-19.6** |
| 2014 | *βs* | **linear** | **-0.017** | **0.005** | **na** | **na** | **0.5013** | **0.00461** | **-29.6** |
| 2014 | *βs* | non-linear | -0.015 | 0.023 | -1.12E-04 | 0.022 | 0.5016 | 0.02246 | -27.6 |
| 2014 | *βst* | **linear** | **-0.015** | **0.006** | **na** | **na** | **0.3745** | **0.02002** | **-26.0** |
| 2014 | *βst* | non-linear | -0.058 | 0.023 | 0.0027 | 0.001 | 0.5328 | 0.01521 | -28.0 |
| 2014 | *βint* | **linear** | **-0.029** | **0.006** | **na** | **na** | **0.6367** | **0.000626** | **-21.9** |
| 2014 | *βint* | non-linear | 0.016 | 0.027 | -0.0028 | 0.002 | 0.7116 | 0.001071 | -23.1 |
| 2015 | *βrw* | linear | -0.004 | 0.005 | na | na | 0.03932 | 0.4968 | -26.4 |
| 2015 | *βrw* | **non-linear** | **0.056** | **0.019** | **-0.0037** | **0.001** | **0.4922** | **0.02406** | **-37.4** |
| 2015 | *βs* | linear | -0.014 | 0.006 | na | na | 0.3039 | 0.04101 | -23.7 |
| 2015 | *βs* | **non-linear** | **-0.078** | **0.018** | **0.0043** | **0.001** | **0.6852** | **0.00173** | **-32.8** |
| 2015 | *βst* | linear | -0.015 | 0.006 | na | na | 0.3598 | 0.02335 | -24.0 |
| 2015 | *βst* | **non-linear** | **-0.093** | **0.011** | **0.0052** | **0.001** | **0.8855** | **6.66E-06** | **-46.1** |
| 2015 | *βint* | linear | -0.019 | 0.003 | na | na | 0.7645 | 4.31E-05 | -42.4 |
| 2015 | *βint* | **non-linear** | **-0.036** | **0.013** | **0.0011** | **0.001** | **0.7967** | **0.00015** | **-42.4** |
| 2013 | *βint Bray-Curtis* | linear | -0.010 | 0.01322 | na | na | 0.0718 | 0.4541 | -10.2 |
| 2013 | *βint Bray-Curtis* | non-linear | 0.0263 | 0.061431 | -0.0033 | 0.005443 | 0.1193 | 0.6411 | -8.8 |
| 2014 | *βint Bray-Curtis* | **linear** | **-0.037** | **0.01316** | **na** | **na** | **0.3988** | **0.0154** | **-1.70** |
| 2014 | *βint Bray-Curtis* | non-linear | -0.035 | 0.0592440 | -0.0001 | 0.0038418 | 0.3989 | 0.06087 | 0.30 |
| 2015 | *βint Bray-Curtis* | **linear** | **-0.026** | **0.007797** | **na** | **na** | **0.4773** | **0.006221** | **-16.4** |
| 2015 | *βint Bray-Curtis* | non-linear | -0.068 | 0.032589 | 0.0028 | 0.002113 | 0.5494 | 0.01246 | -16.4 |

**Table S8.** Regression model coefficients for all turnover metrics. A linear and a non-linear regression model was run for each turnover metric (i.e., the relationship between turnover values and time). Linear and non-linear models were compared using AIC. Lower AIC values indicate a better fitting model and are highlighted in bold. A ΔAIC of 2 was used as a cutoff for model comparisons; if models were within a ΔAIC of 2, linear model (the simpler model) was selected as the best fit. All data were normally distributed. Bray-Curtis dissimilarly (a frequency-based metric of interaction turnover) is also included and exhibits the same qualitative patterns as absolute interaction turnover.