

| | Model 1 | | Model 2 | | Model 3 | |
|---------------------------|----------------|----------|----------------|----------|----------------|----------|
| AIC | 13340.34 | | 13275.54 | | 13277.54 | |
| LogLik | -6665.168 | | -6631.769 | | -6631.769 | |
| DF | 2538 | | 2512 | | 2512 | |
| Fixed effects | | | | | | |
| <i>Intercept</i> | -0.759 | (-0.067) | -0.73 | (-0.156) | -0.729 | (-0.156) |
| U_{bird} | 0.468 | (-0.015) | 0.465 | (-0.015) | 0.465 | (-0.015) |
| V_{bird} | -0.111 | (-0.017) | -0.087 | (-0.018) | -0.087 | (-0.018) |
| $U_{bird} \cdot V_{bird}$ | -0.026 | (-0.003) | -0.025 | (-0.003) | -0.025 | (-0.003) |
| Random effects | | | | | | |
| <i>individual</i> | - | - | 0.722 | (-3.245) | 0.722 | (-3.245) |
| <i>territory</i> | - | - | - | - | 0.001 | - |

Table S4 Modelling individual and parental effects. We compare the wind effects model (model 1) to a mixed linear effect model including a random effect for variable intercepts per individual (model 2) and to a nested mixed linear effect model accounting for variable intercepts per individual within each territory (model 3). For each model we report AIC, log likelihood values and degrees of freedom. In addition, we show the estimates (SE) of all fixed and random effects in each model. An ANOVA revealed model 2 was significantly better than model 1 ($p < 0.001$), which is also reflected in the lower AIC and Log Likelihood values. There was, however, no evidence for differences in wind drift patterns between individuals from different territories. Accounting for differences in intercepts between individuals in model 2 does not significantly alter estimates for wind effects compared to model 1, and overall U_{bird} varies much more strongly with wind conditions than it does between individuals.