**S1 Table. Set of candidate models.**

|  |
| --- |
| Candidate model linear predictor |
| 1 |
| treatment |
| site |
| date |
| treatment + site |
| treatment + date |
| site + date |
| treatment + site + treatment\*site |
| treatment + date + treatment\*date |
| site + date + site\*date |
| treatment + site + date |
| treatment + site + date + site\*date |
| treatment + site + date + treatment\*site |
| treatment + site + date + treatment\*date |
| treatment + site + date + treatment\*site + treatment\*date |
| treatment + site + date + treatment\*site + treatment\*date + site\*date |
| treatment + bird\_size |
| treatment + bird\_group |
| site + bird\_size |
| site + bird\_group |
| treatment + site + bird\_size |
| treatment + site + bird\_group |
| treatment + site + date + bird\_size |
| treatment + site + date + bird\_group |
| treatment + bird\_size + treatment\*bird\_size |
| treatment + bird\_group +treatment\*bird\_group |

The same set of candidate models was applied to all outcome flight behavior metrics. Structure of linear predictors was based on a-priori hypotheses and exploration of non-linearity between predictors and response variables and of collinearity between predictor variables.