

Table S6. The product (SDE) of the mean number of dispersed seeds (SDE_Q) and the mean proportion of seeds dispersed to suitable locations (SDE_D), for the five study species for experiments by movement method; standard error of the mean is presented within parentheses. Thirty experiments per species per movement method. These experiments use *T. migratorius* physiological parameters (main text, Table 1) for all bird species.

Species	Permeability		Straight path		U
	SDE		SDE		
<i>C. cristata</i>	60.3 (4.52)	a	74.8 (5.11)	ab	315*
<i>M. erythrocephalus</i>	61.5 (5.01)	a	70.6 (5.03)	ab	351
<i>S. sialis</i>	63.1 (6.68)	a	61 (4.4)	a	431.5
<i>T. migratorius</i>	88.8 (6.32)	b	104.2 (5.21)	c	292*
<i>V. griseus</i>	89.3 (5)	b	82.7 (6.26)	bc	499.5

Results of Wilcoxon–Mann–Whitney tests (U) comparing SDE between landscape permeability and straight path movement experiments for each bird species (*** $P < 0.001$, ** $P < 0.01$, * $P < 0.05$).

SDE is presented as the mean value with standard error of the mean in parentheses. Different letters within movement methods represent species' differences using Dunn's Test post hoc comparisons ($\alpha = 0.05$) on Kruskal–Wallis analysis of SDE between species.