

Table S4. Mean number of seeds dispersed (SDE_Q) and mean relative percentage of total seeds dispersed (across experiments for all species; % Disp.) for the five study species; standard error of the mean is presented within parentheses. Thirty experiments per species by movement method. These experiments use *T. migratorius* physiological parameters (main text, Table 1) for all bird species.

Species	Permeability	Straight path		Permeability	Straight path	
	SDEq	SDEq	U	% Disp.	% Disp.	U
<i>C. cristata</i>	102.7 (5.74)	a 110.1 (5.39)	a 384	18.16 (1.04)	a 18.28 (0.87)	a 445.5
<i>M. erythrocephalus</i>	106.8 (5.83)	a 120.4 (7.28)	ab 376.5	18.65 (0.86)	a 19.88 (1.07)	ab 383.5
<i>S. sialis</i>	112.7 (6.9)	a 117.2 (6.12)	ab 408	19.88 (1.22)	a 19.39 (0.85)	ab 454
<i>T. migratorius</i>	124.4 (7.46)	a 138.8 (6.44)	b 331.5	21.59 (1.10)	a 22.99 (0.89)	b 360
<i>V. griseus</i>	123.6 (5.93)	a 118.1 (6.96)	ab 495	21.73 (0.98)	a 19.46 (1.00)	ab 560

Results of Wilcoxon–Mann–Whitney tests (U) comparing SDE_Q or proportion dispersed permeability and straight path movement experiments for each bird species (*** P<0.001, ** P<0.01, * P<0.05).

Different letters within movement methods represent species' differences using Dunn's Test post hoc comparisons ($\alpha = 0.05$) on Kruskal–Wallis analysis of the given variable between species.