

Table S10. Comparison of seed dispersal effectiveness (SDE) and SDE subcomponents (SDE_Q, SDE_D) within species between experiments using distinct or *T. migratorius* physiological parameters by movement method. The SDE variables are presented as the mean value, across species, with standard error of the mean in parentheses.

Travel	Species	What	N ₁	N ₂	U	Distinct	<i>T. migratorius</i>
Permeability	<i>C. cristata</i>	SDE _Q	30	30	635*	135.4 (8.36)	102.7 (5.74)
	<i>M. erythrocephalus</i>		30	30	325	93.3 (4.91)	106.8 (5.83)
	<i>S. sialis</i>		30	30	1***	22.1 (1.29)	112.7 (6.9)
	<i>T. migratorius</i>		30	30	590	141.4 (5.95)	124.4 (7.46)
	<i>V. griseus</i>		30	30	0***	5.7 (0.57)	123.6 (5.93)
	<i>C. cristata</i>	SDE _D	30	30	419	0.565 (0.03)	0.59 (0.031)
	<i>M. erythrocephalus</i>		30	30	470	0.562 (0.029)	0.562 (0.03)
	<i>S. sialis</i>		30	30	301	0.445 (0.028)	0.535 (0.03)
	<i>T. migratorius</i>		30	30	517	0.746 (0.021)	0.712 (0.021)
	<i>V. griseus</i>		30	30	443.5	0.677 (0.056)	0.72 (0.019)
	<i>C. cristata</i>	SDE	30	30	588	76.6 (6.06)	60.3 (4.52)
	<i>M. erythrocephalus</i>		30	30	385.5	53.7 (4.21)	61.5 (5.01)
	<i>S. sialis</i>		30	30	3.5***	9.7 (0.75)	63.1 (6.68)
	<i>T. migratorius</i>		30	30	614	104.2 (4.5)	88.8 (6.32)
	<i>V. griseus</i>		30	30	0***	3.8 (0.49)	89.3 (5)
Straight Path	<i>C. cristata</i>	SDE _Q	30	30	529.5	122.4 (6.93)	110.1 (5.39)
	<i>M. erythrocephalus</i>		30	30	221.5**	87.1 (4.24)	120.4 (7.28)
	<i>S. sialis</i>		30	30	0***	21.4 (1.72)	117.2 (6.12)
	<i>T. migratorius</i>		30	30	477	143 (7.05)	138.8 (6.44)
	<i>V. griseus</i>		30	30	0***	6 (0.55)	118.1 (6.96)
	<i>C. cristata</i>	SDE _D	30	30	305	0.574 (0.035)	0.674 (0.031)
	<i>M. erythrocephalus</i>		30	30	386.5	0.552 (0.03)	0.584 (0.025)
	<i>S. sialis</i>		30	30	462	0.508 (0.037)	0.518 (0.026)
	<i>T. migratorius</i>		30	30	487	0.763 (0.021)	0.752 (0.019)
	<i>V. griseus</i>		30	30	388	0.587 (0.067)	0.68 (0.02)
	<i>C. cristata</i>	SDE	30	30	436.5	73 (6.55)	74.8 (5.11)
	<i>M. erythrocephalus</i>		30	30	251.5*	49.8 (4.29)	70.6 (5.03)
	<i>S. sialis</i>		30	30	2***	10.8 (1.19)	61 (4.4)
	<i>T. migratorius</i>		30	30	477.5	107 (4.79)	104.2 (5.21)
	<i>V. griseus</i>		30	30	0***	3.7 (0.46)	82.7 (6.26)

Results of Wilcoxon–Mann–Whitney tests (U) comparing SDE variables between experiments using distinct and *T. migratorius* physiological parameters by movement method (*** P<0.001, ** P<0.01, * P<0.05).