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1 **Supplementary Tables**2 **Supplementary Table 1.** Loadings for the first two principal components (PC I and PC II) of the

3 Principal Component Analysis (PCA) for each behavior, color and morphology datasets for last

4 instar nymphs, and for size variables (five linear measurements and two morphometric ratios) for

5 adults of *S. cancellata*. Eigenvalues, variance and cumulative variance (%) for PC I and PC II are

6 also indicated.

Last instar nymphs				Adults			
Behavior	PC I	PC II	Size	PC I	PC II		
Distance moved	0.41	0.18	Tegmen length	0.45	-0.10		
Movement	0.41	0.18	Body length	0.48	-0.08		
Velocity	0.30	0.09	Hind femur length	0.44	0.33		
Time spent on wall climbing	0.41	0.14	Head width	0.43	-0.10		
Time spent on stimulus wall	0.37	-0.41	Pronotum length	0.41	0.26		
Time spent in stimulus zone	0.29	-0.55	E/F (tegmen length/femur length)	0.07	-0.68		
Time spent in non-stimulus zone	0.11	0.66	F/C (femur length/head width)	-0.13	0.58		
Time spent in neutral zone	-0.41	-0.02	Eigenvalue	4.18	1.41		
Eigenvalue	3.90	1.88	% Variance	59.75	20.12		
% Variance	48.78	23.46	% Cumulative variance	59.75	79.87		
% Cumulative variance	48.78	72.24					
Colour (Black pattern)				PC I	PC II		
BP_pronotum	0.58	-0.36					
BP_wing pad	0.57	0.82					
BP_hind femur	0.58	-0.45					
Eigenvalue	2.92	0.06					
% Variance	97.43	2.00					
% Cumulative variance	97.43	99.43					
Morphology (size and hairs)				PC I	PC II		
PL (pronotum length)	-0.34	0.61					
FL (hind femur length)	-0.39	0.58					
Hairs	0.56	0.44					
Hairs/FL	0.65	0.30					
Eigenvalue	1.99	1.92					
% Variance	49.73	48.10					
% Cumulative variance	49.73	97.83					

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		Morphology				
		diff	lwr	upr	p adj	
Pronotum length	Isolated:Female-Crowded:Female	0.579	0.309	0.848	< 0.001	*
	Crowded:Male-Crowded:Female	-0.960	-1.222	-0.698	< 0.001	*
	Isolated:Male-Isolated:Female	-1.736	-2.008	-1.465	< 0.001	*
	Isolated:Male-Crowded:Male	-0.198	-0.462	0.066	0.212	
Femur length	Isolated:Female-Crowded:Female	0.893	0.317	1.469	< 0.001	*
	Crowded:Male-Crowded:Female	-2.070	-2.629	-1.510	< 0.001	*
	Isolated:Male-Isolated:Female	-3.726	-4.307	-3.145	< 0.001	*
	Isolated:Male-Crowded:Male	-0.764	-1.328	-0.199	0.003	*
Femur Hairs	Isolated-Crowded	70.536	63.108	77.964	< 0.001	*
Femur Hairs/Femur length	Isolated:Female-Crowded:Female	2.989	2.271	3.708	< 0.001	*
	Crowded:Male-Crowded:Female	-0.100	-0.798	0.599	0.982	
	Isolated:Male-Isolated:Female	1.051	0.326	1.776	0.001	*
	Isolated:Male-Crowded:Male	4.140	3.435	4.844	< 0.001	*

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11 **Supplementary Table 3.** Tukey's HSD test on morphology (size) in adults of *Schistocerca*12 *cancellata*. *Significant differences

		Morphology (Size) - Adults				
		diff	lwr	upr	p adj	
Body length	Isolated:Female-Crowded:Female	-1,187	-3,138	0,765	0,396	
	Crowded:Male-Crowded:Female	-9,073	-10,388	-7,758	< 0.001	*
	Isolated:Male-Isolated:Female	-13,288	-15,623	-10,954	< 0.001	*
	Isolated:Male-Crowded:Male	-5,402	-7,238	-3,565	< 0.001	*
Tegmen length	Isolated:Female-Crowded:Female	1,188	-0,377	2,752	0,2048	
	Crowded:Male-Crowded:Female	-6,919	-7,988	-5,851	< 0.001	*
	Isolated:Male-Isolated:Female	-11,352	-13,222	-9,482	< 0.001	*
	Isolated:Male-Crowded:Male	-3,246	-4,726	-1,765	< 0.001	*
Femur length	Isolated:Female-Crowded:Female	0,152	-0,624	0,929	0,957	
	Crowded:Male-Crowded:Female	-3,607	-4,131	-3,084	< 0.001	*
	Isolated:Male-Isolated:Female	-5,550	-6,480	-4,621	< 0.001	*
	Isolated:Male-Crowded:Male	-1,791	-2,522	-1,060	< 0.001	*

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Head width	Isolated:Female-Crowded:Female	-0,633	-0,821	-0,445	< 0.001	*
	Crowded:Male-Crowded:Female	-0,936	-1,063	-0,809	< 0.001	*
	Isolated:Male-Isolated:Female	-1,264	-1,488	-1,040	< 0.001	*
	Isolated:Male-Crowded:Male	-0,961	-1,137	-0,785	< 0.001	*
Pronotum length	Isolated:Female-Crowded:Female	-0,439	-0,760	-0,117	0,003	*
	Crowded:Male-Crowded:Female	-1,435	-1,654	-1,217	< 0.001	*
	Isolated:Male-Isolated:Female	-2,021	-2,405	-1,637	< 0.001	*
	Isolated:Male-Crowded:Male	-1,024	-1,327	-0,722	< 0.001	*
F/C	Isolated-Crowded	0,404	0,339	0,470	< 0.001	*

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