

S2 – Summary of estimates of variation in posterior mode for fixed effects (i.e. sex ratio treatment), for the estimates of variance for site and individuals and for residual variance. Values in parentheses indicate the 95% credible intervals.

Sexual Behaviour	Population groups		
	Low Coefficient of Variation	High Coefficient of Variation	
	Posterior mode ( $\pm$ CrI)	Posterior mode ( $\pm$ CrI)	
	<b>Fixed effects</b>		
	Intercept	1.772 (1.460: 2.066)	1.598 (0.603: 2.565)
	Slope	0.199 (0.133: 0.272)	0.127 (-0.381: 0.723)
	<b>Variance estimates</b>		
	Among populations	0.151 (0.065: 0.541)	-0.014 (3.86e <sup>-5</sup> : 3.909)
	Within populations	1.66e <sup>-4</sup> (3.31e <sup>-13</sup> : 0.020)	-0.004 (1.58e <sup>-11</sup> : 1.323)
Consensual Mating Display	Among individuals	0.126 (0.087: 0.191)	0.280 (0.170: 0.440)
	Within individuals	4.01e <sup>-4</sup> (1.36e <sup>-10</sup> : 0.080)	0.191(0.088: 0.321)
	<b>Residual Variance</b>		
	Even sex ratio	0.288 (0.216: 0.361)	0.392 (0.273: 0.602)
	Female sex ratio	0.247 (0.134: 0.344)	3.99e <sup>-3</sup> (7.16e <sup>-4</sup> : 0.098)
	Male sex ratio	0.217 (0.106: 0.330)	4.47e <sup>-3</sup> (5.45e <sup>-4</sup> : 0.436)
	<b>Covariance intercepts/slopes</b>	-4.93e <sup>-5</sup> (-0.010: 5.09e <sup>-3</sup> )	0.447 (-0.517: 0.687)
	<b>Fixed effects</b>		
	Intercept	1.754 (1.563: 1.945)	1.315 (0.838: 1.754)
	Slope	-0.069 (-0.168: 0.033)	-0.085 (-0.289: 0.154)
	<b>Variance estimates</b>		
	Among populations	0.062 (0.020: 0.202)	-2.81e <sup>-3</sup> (2.32e <sup>-10</sup> : 0.848)
	Within populations	0.012 (4.47e <sup>-08</sup> : 0.058)	-5.80e <sup>-4</sup> (1.49e <sup>-12</sup> : 0.181)
Sneak Thrust	Among individuals	0.079 (0.050: 0.118)	0.155 (0.059: 0.270)
	Within individuals	3.11e <sup>-3</sup> (1.67e <sup>-10</sup> : 0.068)	4.02e <sup>-4</sup> (9.87e <sup>-11</sup> : 0.172)
	<b>Residual Variance</b>		
	Even sex ratio	0.180 (0.139: 0.233)	0.432 (0.303: 0.669)
	Female sex ratio	0.192 (0.113: 0.278)	4.60e-3 (6.58e <sup>-4</sup> : 0.231)
	Male sex ratio	0.157 (0.081: 0.242)	0.561 (0.279: 0.912714)
	<b>Covariance intercepts/slopes</b>	-6.15e <sup>-4</sup> (-0.029: 0.014)	-0.733 (-0.081: 0.086)

S2 – continued

<b>Sexual Behaviour</b>		<b>Population groups</b>	
		<b>Low mean</b>	<b>High mean</b>
		Posterior mode ( $\pm$ CrI)	Posterior mode ( $\pm$ CrI)
<b>Fixed effects</b>			
	Intercept	1.772 (1.460: 2.066)	1.598 (0.603: 2.565)
	Slope	0.199 (0.133: 0.272)	0.127 (-0.381: 0.723)
<b>Variance estimates</b>			
	Among populations	0.259 (0.030: 1.197)	0.076 (0.013: 0.343)
	Within populations	4.90e <sup>-3</sup> (2.45e <sup>-12</sup> : 0.053)	5.45e <sup>-4</sup> (4.66e <sup>-10</sup> : 0.052)
Consensual Mating Display	Among individuals	0.126 (0.087: 0.191)	0.280 (0.170: 0.440)
	Within individuals	4.01e-3 (1.36e <sup>-10</sup> : 0.080)	0.191(0.088: 0.321)
<b>Residual Variance</b>			
	Even sex ratio	0.189 (0.135: 0.273)	0.390 (0.297: 0.508)
	Female sex ratio	0.191 (0.094: 0.295)	0.069 (0.013: 0.255)
	Male sex ratio	0.012 (1.70e <sup>-3</sup> : 0.226)	0.264 (0.110: 0.424)
<b>Covariance intercepts/slopes</b>		-1.56e <sup>-3</sup> (-0.032: 0.015)	3.67e <sup>-4</sup> (-0.018: 0.024)
<b>Fixed effects</b>			
	Intercept	1.754 (1.563: 1.945)	1.315 (0.838: 1.754)
	Slope	-0.069 (-0.168: 0.033)	-0.085 (-0.289: 0.154)
<b>Variance estimates</b>			
	Among populations	0.137 (0.015: 0.884)	0.031 (6.12e <sup>-3</sup> : 0.159)
	Within populations	0.030 (3.34e <sup>-8</sup> : 0.226)	3.63e <sup>-4</sup> (3.44e <sup>-13</sup> : 0.022)
Sneak Thrust	Among individuals	0.079 (0.050: 0.118)	0.155 (0.059: 0.270)
	Within individuals	0.0003 (1.67e <sup>-10</sup> : 0.068)	4.02e <sup>-3</sup> (9.87e <sup>-11</sup> : 0.172)
<b>Residual Variance</b>			
	Even sex ratio	0.203 (0.147: 0.294)	0.275 (0.213: 0.366)
	Female sex ratio	0.196 (0.083: 0.297)	0.138 (0.047: 0.266)
	Male sex ratio	0.172 (0.082: 0.261)	0.351 (0.200: 0.486)
<b>Covariance intercepts/slopes</b>		0.013 (-0.113: 0.082)	1.11e-4 (-4.38e <sup>-3</sup> : 0.014)

