

## Aberystwyth University

### *Is extrapair mating random?*

Brommer, Jon E.; Korsten, Peter; Bouwman, Karen M.; Berg, Mathew L.; Komdeur, Jan

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tel: +44 1970 62 2400  
email: [is@aber.ac.uk](mailto:is@aber.ac.uk)

1 **Supplementary Data:** Data on the reed bunting, blue tit and winter wren. For each species, we specify the number of broods of a particular brood  
 2 size with a given number of EPY. Impossible combinations (the number of EPY larger than the brood size) are indicated by ‘-’. The data is fitted  
 3 in this form to the single and brood-level model. For each brood size category, the expected values of a given number of EPY is given for the best-  
 4 fit offspring-level and brood-level models (see Table 2 in main text), on the first and second line respectively. Per brood size category, the degrees  
 5 of freedom (d.f.) is given. The model’s total d.f. is the sum over all rows. For calculating a fitted model’s goodness-of-fit statistic, we used the  
 6 model’s chi-square value with, as associated d.f., either one less (for the offspring-level model) or two less (for the brood-level model) than the  
 7 total d.f. calculated here. Published data on the other species can be found in the same format in the original publications. To produce the  
 8 summary figures in the main text, we calculated the total number of observed and expected broods for each category of number of EPY across  
 9 brood sizes (i.e. column totals).

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11	Brood size (n)	Number of EPY					d.f.
13	<i>Reed bunting</i>						
14		0	1	2	3	4	5

15

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16 1 (2) 1 1 -- -- -- -- 1

17 1.003 0.997

18 0.930 1.070

19 2 (5) 2 1 2 -- -- -- 2

20 1.257 2.500 1.243

21 1.586 1.479 1.936

22 3 (6) 2 0 2 2 -- -- 3

23 0.756 2.256 2.244 0.744

24 1.629 0.823 1.839 1.710

25 4 (21) 6 2 4 4 5 -- 4

26 1.327 5.280 7.875 5.220 1.298

27 5.379 1.286 3.829 6.031 4.476



40		0.300	0.394	0.222	0.069	0.013	0.002	0.000	0.000								
41		0.433	0.211	0.183	0.108	0.047	0.015	0.003	0.000								
42	8 (2)	1	0	0	0	1	0	0	0	0	--	--	--	--	--	--	8
43		0.505	0.759	0.498	0.187	0.044	0.007	0.001	0.000	0.000							
44		0.818	0.378	0.366	0.245	0.126	0.050	0.014	0.003	0.000							
45	9 (5)	1	2	0	2	0	0	0	0	0	0	--	--	--	--	--	9
46		1.064	1.796	1.348	0.590	0.166	0.031	0.004	0.000	0.000	0.000						
47		1.952	0.838	0.894	0.662	0.385	0.181	0.066	0.02	0.003	0.000						
48	10 (9)	3	2	3	0	0	1	0	0	0	0	0	--	--	--	--	10
49		1.612	3.025	2.554	1.278	0.420	0.095	0.015	0.002	0.000	0.000	0.000					
50		3.381	1.333	1.546	1.245	0.799	0.427	0.187	0.064	0.016	0.003	0.000					



62		0.340	0.088	0.132	0.137	0.113	0.082	0.053	0.030	0.015	0.007	0.002	0.001	0.000	0.000	0.000	
63	Total d.f.																90
64																	
65	Winter wren																
66		0	1	2	3	4	5	6	7	8	9						
67		<hr/>															
68	1 (1)	1	0	--	--	--	--	--	--	--	--						1
69		0.643	0.357	--	--	--	--	--	--	--	--						
70		0.713	0.288	--	--	--	--	--	--	--	--						
71	2 (1)	1	0	0	--	--	--	--	--	--	--						2
72		0.414	0.459	0.127	--	--	--	--	--	--	--						

73		0.560	0.305	0.135	--	--	--	--	--	--	--	
74	3 (3)	3	0	0	0	--	--	--	--	--	--	3
75		0.799	1.329	0.734	0.136	--	--	--	--	--	--	
76		1.427	0.761	0.610	0.202	--	--	--	--	--	--	
77	4 (3)	1	1	1	0	0	--	--	--	--	--	4
78		0.514	1.140	0.95	0.350	0.047	--	--	--	--	--	
79		1.281	0.584	0.645	0.384	0.106	--	--	--	--	--	
80	5 (7)	5	1	1	0	0	0	--	--	--	--	5
81		0.771	2.138	2.371	1.315	0.365	0.040	--	--	--	--	
82		2.787	1.010	1.387	1.123	0.558	0.136	--	--	--	--	
83	6 (8)	6	1	0	0	0	0	1	--	--	--	6



84		0.567	1.886	2.615	1.933	0.804	0.178	0.017	--	--	--		
85		3.046	0.839	1.364	1.353	0.910	0.401	0.089	--	--	--		
86	7 (3)	1	1	0	1	0	0	0	0	0	--	--	7
87		0.137	0.531	0.883	0.816	0.453	0.151	0.028	0.002	--	--		
88		1.110	0.226	0.423	0.489	0.399	0.238	0.096	0.020	--	--		
89	8 (2)	0	0	1	1	0	0	0	0	0	0	--	8
90		0.059	0.260	0.505	0.560	0.388	0.172	0.048	0.008	0.001	--		
91		0.727	0.108	0.227	0.298	0.280	0.202	0.111	0.041	0.008	--		
92	9 (1)	0	0	0	1	0	0	0	0	0	0	0	9
93		0.019	0.094	0.209	0.270	0.225	0.125	0.046	0.011	0.002	0.000		
94		0.359	0.038	0.090	0.131	0.138	0.118	0.076	0.039	0.014	0.002		

95 Total d.f.

45

96

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