

**Supplementary material**

## Appendix 1

Details of breeding metrics and number of song recordings for subsample of male House Wrens (n = 26) used to compare song complexity and breeding success.

<b>Bird ID</b>	<b>Season</b>	<b>First egg date</b>	<b>Fledging date</b>	<b>Total eggs*</b>	<b>Total fledglings*</b>	<b>Number songs</b>	<b>Total syllable types</b>
211	2012	16-Nov-12	-	5 (5)	0	711	27
212	2012	22-Nov-12	-	9 (5,4)	4 (0, 4)	1458	28
405	2012	13-Jan-13	-	N/A	0	1481	27
411	2012	21-Nov-12	-	5 (5)	0	1665	28
414	2012	14-Nov-12	19-Dec-12	5 (5)	5 (5)	336	28
417	2012	21-Dec-12	24-Jan-13	4 (4)	4 (4)	483	28
422	2012	-	-	0	0	613	22
423	2012	28-Nov-12	-	4 (4)	0	351	22
428	2012	10-Dec-12	-	4 (4)	0	379	22
438	2012	16-Dec-12	-	5 (5)	0	1087	26
466	2012	29-Nov-12	27-Jan-13	7 (5,2)	2 (0,2)	2051	28

475	2012	-	-	0	0	417	27
210	2013	16-Dec-13	19-Jan-14	4 (4)	4 (4)	2046	28
409	2013	21-Nov-13	26-Dec-13	10 (5,5)	4 (4,0)	703	27
410	2013	24-Nov-13	-	12 (6,6)	0	1904	27
419	2013	19-Nov-13	25-Dec-13	5 (5)	5 (5)	1519	28
504	2013	10-Nov-13	11-Dec-13	11 (5,6)	10 (5,5)	1368	28
557	2013	28-Nov-13	-	5 (5)	0	520	22
570	2013	25-Dec-13	30-Jan-14	5 (5)	5 (5)	3227	28
573	2013	06-Dec-13	09-Jan-14	5 (5)	5 (5)	1653	28
574	2013	09-Dec-13	14-Jan-14	10 (5,5)	N/A	2545	28
575	2013	15-Dec-13	-	5 (5)	0	2289	28
581	2013	20-Nov-13	26-Dec-13	9 (5,4)	8 (5,3)	701	25
585	2013	-	-	0	0	720	26
588	2013	-	-	0	0	2739	28
599	2013	26-Dec-13	31-Jan-14	7 (7)	3 (3)	1139	26

\* First number represents seasonal total of eggs (or fledglings) summed across all nesting attempts, while numbers in brackets indicate the totals for individual nest attempts. For one male, the nest was destroyed before egg laying was complete; and for another our observations ended when the nestlings were still in the nest. Therefore, we recorded the uncertainty for these two males using NA codes for *total number of eggs* and *total number of fledglings*, and they were omitted from tests related to these two breeding metrics.