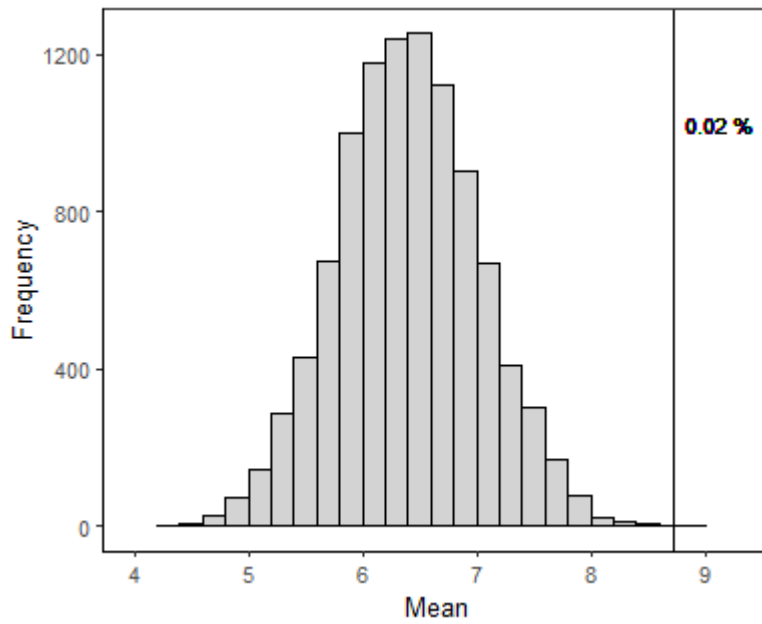


Supplementary material

1 **Appendix 1.**

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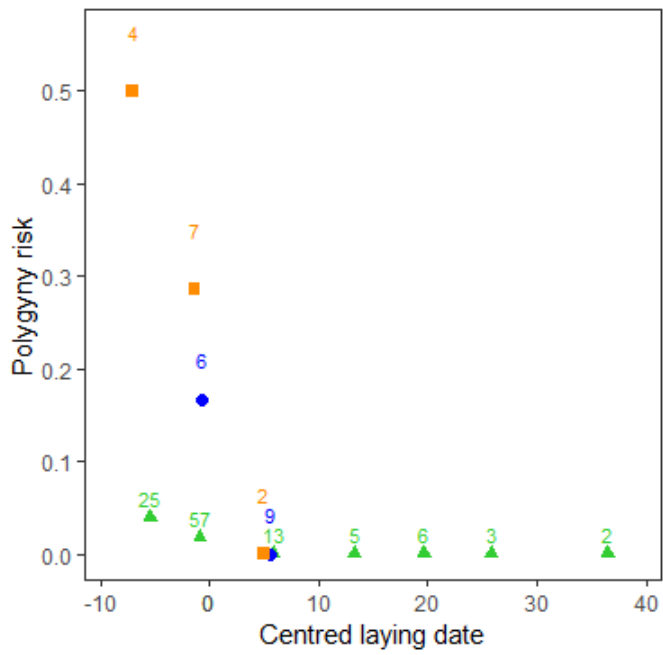
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5 Figure A1. Distribution of interbrood intervals from male identity permutations. The observed mean
6 interbrood interval (8.73 days) is indicated by the vertical line, and only 0.02% of the permuted datasets
7 exceeded this mean interval.

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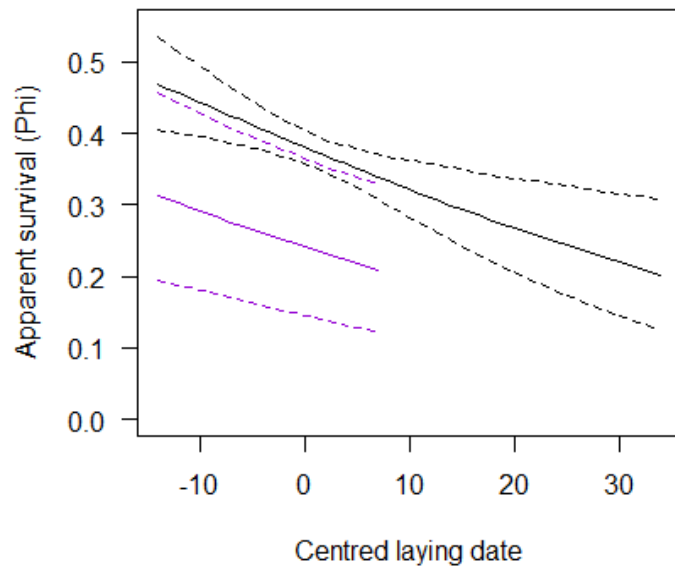


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12 Figure A2. Proportion of females experiencing polygyny as primary females in the different treatments in
 13 a Swedish Pied flycatcher population (2017-2018) plotted over laying date. The colours represent the
 14 experimental treatments (orange squares: Dutch translocation females, blue filled circles: Swedish control
 15 females and triangles: unmanipulated Swedish females) and sample size is indicated per point in text.

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19 Figure A3. CJS model prediction of change in apparent survival by centred laying date for monogamous
 20 females (black solid line) and primary females (purple solid line). Dashed lines indicate the 95% credible
 21 interval. Raw data points are presented in figure 2d.

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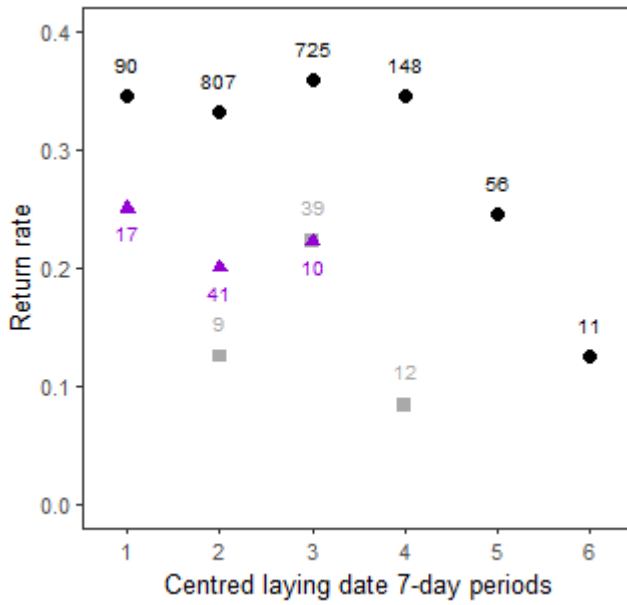
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29 Figure A4. Return rates of Dutch pied flycatcher females that fledged at least one offspring, in any year
 30 after the year of breeding in the Drenthe population. Centred laying dates were grouped into seven-day
 31 units. Data points with sample sizes smaller than or equal to five were not depicted and sample size is
 32 indicated per point in text. Mating status of females is indicated by different symbols (black filled circles:
 33 monogamous females, purple triangles: primary females and grey squares: secondary females).

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45 Table A1. Candidate models for the likelihood of becoming a primary female in experimental treatments in
 46 a Swedish pied flycatcher population. Model fit is assessed by AIC values and the best model and competing
 47 ones ($\Delta AIC < 2$) are indicated in bold.

Model	AIC	ΔAIC
Primary female ~ Treatment + Laying date + Year	42.9	
Primary female ~ Treatment + Year	44.2	1.2
Primary female ~ Treatment + Laying date	44.6	1.6
Primary female ~ Treatment	44.8	1.9
Primary female ~ Laying date + Year	47.3	4.4
Primary female ~ Laying date	48.3	5.4
Primary female ~ Year	50.5	7.5
Primary female ~ 1	51.1	8.1

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52 Table A2. Candidate models for brood success (fledged any offspring or not) of Pied flycatcher females
 53 breeding monogamously or as primary females in Drenthe, the Netherlands (2007-2018). Model fit is
 54 assessed by AIC values and the best model and competing ones ($\Delta AIC < 2$) are indicated in bold.

Model	AIC	ΔAIC
Brood success ~ Polygyny category + Laying date + (1 Year)	1346.8	
Brood success ~ Polygyny category * Laying date + (1 Year)	1347.7	0.9
Brood success ~ Laying date + (1 Year)	1349.4	2.6
Brood success ~ (1 Year)	1401.1	54.3
Brood success ~ Polygyny category + (1 Year)	1401.9	55.1

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59 Table A3. Candidate models for fledgling number of Pied flycatcher females breeding monogamously or as
 60 primary females in Drenthe, the Netherlands (2007-2018). Model fit is assessed by AIC values and the best
 61 model is indicated in bold.

Model	AIC	ΔAIC
Fledgling number ~ Laying date + (1 Year) + (1 FemaleID) + (1 MaleID)	7429.8	
Fledgling number ~ Polygyny category + Laying date + (1 Year) + (1 FemaleID) + (1 MaleID)	7431.8	2
Fledgling number ~ Polygyny category * Laying date + (1 Year) + (1 FemaleID) + (1 MaleID)	7433.6	3.8
Fledgling number ~ (1 Year) + (1 FemaleID) + (1 MaleID)	7462.5	32.7
Fledgling number ~ Polygyny category + (1 Year) + (1 FemaleID) + (1 MaleID)	7463.1	33.3

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67 Table A4. Candidate models for number of recruited offspring by pied flycatcher females breeding in
 68 Drenthe, the Netherlands (2007-2018). Model fit is assessed by AIC values and the best model and
 69 competing ones (ΔAIC < 2) are indicated in bold.

Model	AIC	ΔAIC
Recruit number ~ Laying date + (1 Year) + (1 FemaleID) + (1 MaleID)	4008.7	
Recruit number ~ Polygyny category + Laying date + (1 Year) + (1 FemaleID) + (1 MaleID)	4010.4	1.7
Recruit number ~ Polygyny category * Laying date + (1 Year) + (1 FemaleID) + (1 MaleID)	4011.7	3
Recruit number ~ (1 Year) + (1 FemaleID) + (1 MaleID)	4047.4	38.7
Recruit number ~ Polygyny category + (1 Year) + (1 FemaleID) + (1 MaleID)	4049.2	40.5

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