

Supplementary material

Appendix 1

Table A1: The number of eggs, hatchlings and fledglings with associated number of females (mothers) distributed across treatment groups. Females laying multiple clutches (two or three) had each clutch incubated under different experimental temperatures.

Numbers in parentheses indicate the number of females.

Treatment - incubation temperature	Number of eggs	Number of hatchlings	Number of fledglings
<i>One clutch</i>			
35.9 °C	31 (7)	12 (7)	5 (4)
37.0 °C	14 (4)	6 (4)	3 (3)
37.9 °C	33 (6)	12 (6)	10 (5)
<i>Two clutches</i>			
35.9 – 37.0 °C	19 – 35 (5)	11 – 20 (5)	10 – 11 (4)
37.0 – 37.9 °C	7 – 8 (2)	4 – 5 (2)	3 – 4 (2)
37.9 – 35.9 °C	23 – 27 (6)	8 – 11 (6)	6 – 6 (4)
<i>Three clutches</i>			
35.9 – 37.0 – 37.9 °C	37 – 29 – 29 (7)	22 – 17 – 16 (7)	16 – 14 – 13 (7)

Table A2: The number of chicks and survivors with associated number of females (mothers) distributed across treatment groups included in the data used for the post-fledging survival analysis. Females laying multiple clutches (two or three) had each clutch incubated under different experimental temperatures. Numbers in parentheses indicate number of females.

Treatment - incubation temperature	Number of chicks	Number of survivors
<i>One clutch</i>		
35.9 °C	4 (3)	0
37.0 °C	4 (4)	2 (2)
37.9 °C	8 (5)	4 (4)
<i>Two clutches</i>		
35.9 – 37.0 °C	11 – 12 (5)	4 – 7 (5)
37.0 – 37.9 °C	4 – 7 (2)	1 – 3 (2)
37.9 – 35.9 °C	6 – 6 (4)	4 – 0 (4)
<i>Three clutches</i>		
35.9 – 37.0 – 37.9 °C	10 – 7 – 8 (4)	2 – 2 – 4 (3)

Presented is the adjusted sample size after removal of 14 birds which were euthanized. Note that removal of these birds consequently changes the distribution of females and offspring between treatment combinations (losses and gains in numbers) compared to that reported in table A1. Number of chicks refers to the number of birds at 20 days of age and number of survivors refers to the number of birds alive 2.5 years after the experimental treatment.

Table A3: Variance components of survival from the three statistical models. Presented are proportions of total variance explained by the random effects.

Random effects	Embryonic survival	Pre-fledging survival	Post-fledging survival
Mother ID	48.8 %	79.9 %	99.9 %
Clutch ID	51.2 %	20.1 %	0.1 %

Conditions related to euthanasia of birds:

During the experimental study 14 birds were euthanized. These birds were euthanized due to injuries that would have significantly reduced the quality of their life. The decisions for euthanizing the birds were taken in collaboration with the assigned veterinary. Euthanasia was done by cervical dislocation according to standards of the Norwegian Animal Research Authority.

Twelve birds obtained different injuries to their legs.

One bird obtained an injury to one eye.

One bird developed a large boil in the back of the head.