Supplementary material

Appendix 1

Influence of the experimental treatment that nest-boxes received during the first breeding attempt on reproductive outcomes of the second breeding attempt.

We found that none of the considered measures of second breeding attempt was affected by the treatment that the next-box received during the first breeding attempt (Table A1A, Table A1B). Neither, the experimental treatment during the first breeding attempt influenced probability of predation (GLZ, $\chi^2 = 0.91$, P = 0.341).

Table A1A. Results from GLM models testing whether the experimental treatment of nests during the first breeding attempt influenced detected effects during the second attempt. Models include experimental treatment of the first breeding attempt as the independent fixed factor, and tarsus length, body mass and *Carnus* bites of nestlings as dependent variables. Average nest values were used in the analyses. In the case of the bacterial load, we analysed estimations for day 1 of the nestling periods, before the start of the experiment.

Variable	Beta(SE)	DF	F	P
TSA Media	-0.22(0.13)	1,52	2.77	0.102
HK Media	-0.06(0.14)	1,52	0.22	0.644
VJ Media	0.08(0.14)	1,52	0.33	0.570
KF Media	-0.04(0.14)	1,52	0.10	0.760
Fledging success	0.16(0.14)	1,53	1.40	0.241
Tarsus	0.01(0.17)	1,35	0.00	0.957
Body mass	0.13(0.17)	1,35	0.61	0.439
Carnus Bites	0.03(0.17)	1,35	0.04	0.838

Table A1B. Means and standard deviation of the log-transformed bacterial loads (mesophilic bacteria (TSA), enterobacteria (HK), staphylococci (VJ) and enterococci (KF)) in Control (C) and Experimental (E) nest-boxes the day after hatching in first (C_1 and E_1) and second (C_2 and E_2) breeding attempts.

Treatment$_{Brood}$	N	Mean(SD)$_{TSA}$	Mean(SD)$_{HK}$	Mean(SD)$_{VJ}$	Mean(SD)$_{KF}$
C_1	24	0.66(0.10)	0.26(0.24)	0.07(0.15)	0.61(0.10)
E_1	31	0.67(0.11)	0.23(0.28)	0.12(0.17)	0.63(0.06)
C_2	24	0.73(0.10)	0.35(0.29)	0.31(0.24)	0.63(0.15)
E_2	30	0.77(0.11)	0.38(0.28)	0.28(0.22)	0.64(0.11)