

**Supplementary material**

## Appendix 1

### Additional analysis

- **Analysis (Tweedie distribution)**

We used the Tweedie (Poisson-Gamma) distribution, which is designed to analyse continuous data that are right-skewed and contain many zeroes (see Figure 1). These results replicate those of our previous analysis. We report in the manuscript the results with the possible outlier, and indicate that the results of the analysis without this datum, which are essentially the same, are reported in this section (and are reproduced below; we include the verification for this reduced sample that temperature was not affected by our manipulation).

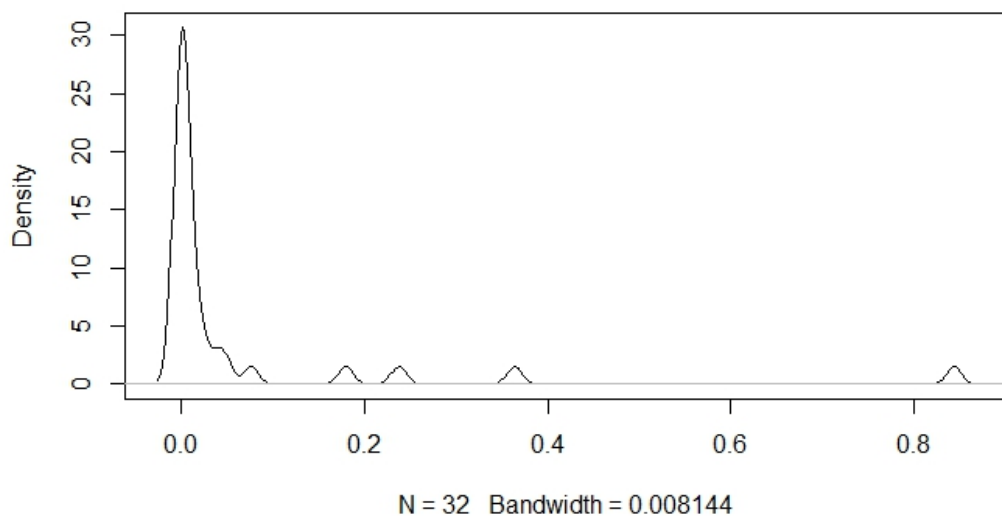


Figure A1. Distribution of the independent variable (weight of cigarette butts added by females after manipulation).

### Results

Temperature was the same before and after manipulation (paired  $t_{30} = -0.2, P=0.84$ ), as well as among treatments ( $F_{2, 28}=1.54, P=0.23$ ).

### Model selection

Table A1. Five models that examine the influence of temperature, initial amount of cigarette butts (FL) and treatment on the variation in the amount of cigarette butts added by females to the artificial lining (AL). Model selection is based on AICc (for small sample sizes) and  $\Delta$ AICc.

Models	Number of parameters (k)	N	AICc	$\Delta$ AICc
<b>Treatment + FL</b>	<b>4</b>	<b>32</b>	<b>-9.60</b>	<b>0.00</b>
FL	2	32	-9.29	0.31
FL + temperature	3	32	-7.85	1.74
Treatment + FL + Temperature	5	32	-6.79	2.81
Treatment x FL	6	32	-4.27	5.33

We obtained three models with differences in AICc < 2. The first and second models are redundant, whereas the third includes temperature, which is not significant (see Table 4 below).

Table A2. Coefficients of the variables in the first model in Table 1.

	Artificial lining~ Treatment + First lining		
	Coefficient	SE	P
Intercept	-6.01	0.84	0.00
Treatment: LE	1.87	0.88	0.04
Treatment: NE	1.86	0.94	0.06
FL	14.45	4.89	0.01

Table A3. Coefficients of the second model from Table 1.

	Artificial lining~ First lining		
	Coefficient	SE	P
Intercept	-4.42	0.52	0.00
FL	13.69	4.87	0.008

Table A4. Coefficients of the third model from Table 1.

Artificial lining~ Temperature + First lining			
	Coefficient	SE	<i>P</i>
Intercept	-15.11	11.60	0.20
FL	13.72	5.07	0.01
Temperature	0.36	0.38	0.36

- **Nest size**

There is no difference of nest size  $F_{2, 29}=0.01$   $P=0.99$

- **First lining**

Comparison among treatment of amount of cigarette butts from the first lining.

Table A5. ANOVA comparing the amount of cigarette butts in the first lining among treatments.

	DF	Sum Sq	Mean Sq	F	P value
Treatment	2	0.02	0.01	3.43	0.05
Residuals	29	0.10	0.00		

Where treatments are: live ectoparasites (LE), dead ectoparasites (DE) and no ectoparasites (NE) added to the nest. The above significance is due to differences between NE and LE, as seen in the following table.

Table A6. Post hoc test (Tukey) from the ANOVA showed in Table 1.

	Difference	Lower	Upper	P value
LE-DE	0.03	-0.03	0.10	0.40
NE-DE	-0.03	-0.09	0.03	0.43
NE-LE	-0.07	-0.13	0.00	0.04

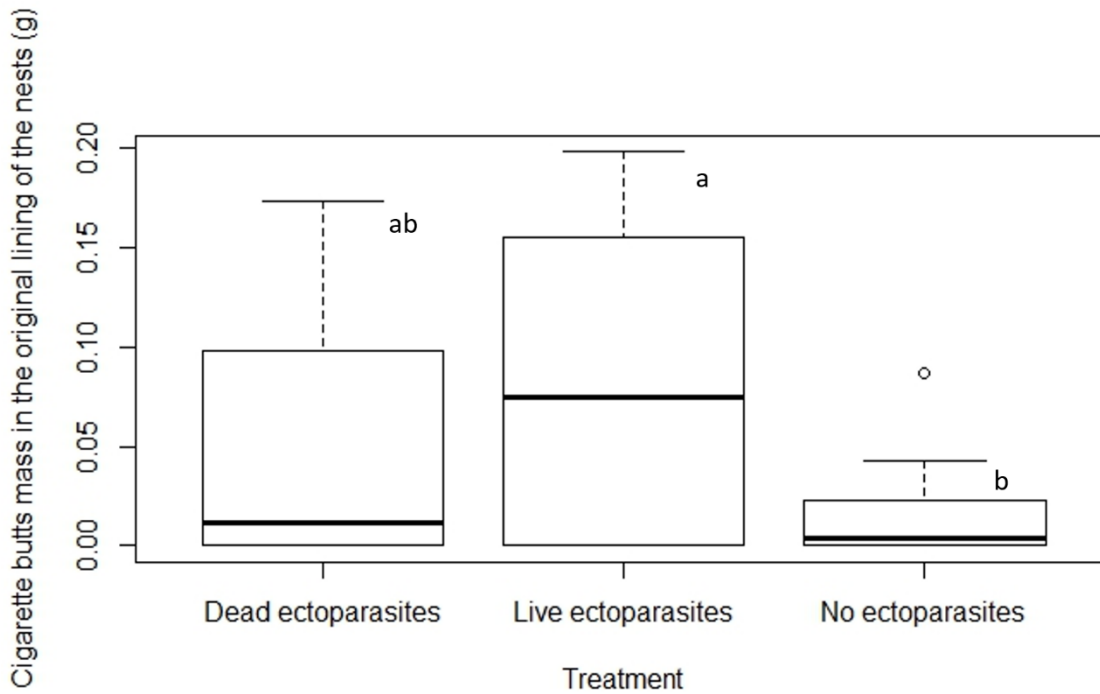


Figure A2. Differences between treatments in the amount of cigarette butts found in the nest lining before performing the manipulation. Treatments sharing a letter do not differ significantly.

As the post hoc comparison shows, nests that were assigned to the live ectoparasites treatment had, initially, more cigarette butt material in the lining than nests that were added no ectoparasites, but there was no difference between the two controls (no ectoparasites and dead ectoparasites treatments), nor between the dead ectoparasites and the live ectoparasites treatments. Note, however, that the nest in this treatment with more cigarette butts before the manipulation (29 LE) was not the one in which more butts were placed in response to the experimental addition of live ectoparasites (17 LE; data will be deposited in Dryad).