

Supplementary material

Appendix 1.

Table A1. Clutch sizes of the collared flycatchers (*Ficedula albicollis*) in this study.

| Clutch size | 4 | 5 | 6 | 7 | 8 |
|-----------------|---|----|----|----|---|
| Number of nests | 1 | 17 | 89 | 74 | 1 |

Our protocol of egg injection aimed to inject hormones into the eggs before the onset of incubation. In the cases when clutch size was less than 6 (18 nests, i.e. 9.9%) and the females started incubation before the end of laying, eggs might have been incubated for a few hours to a half day at the time of injection. However, this is unlikely to affect our results as egg injection treatment was pre-assigned before we could know the final clutch size and eventually clutch size did not differ between the two treatments.

Table A2. Collared flycatcher nestling sex with respect to thyroid hormone (TH) injection treatment.

| | TH-injected eggs | Control eggs |
|--------|------------------|--------------|
| Male | 77 | 66 |
| Female | 65 | 64 |

Table A3. Hatching success among TH-injected eggs and CO eggs in the study of great tits, rock pigeons, and collared flycatchers

| Species | TH-injected eggs | CO eggs | Reference |
|---|------------------|---------|-----------------------|
| Great tit, <i>Parus major</i> | 50.3% | 49.8% | Ruuskanen et al. 2016 |
| Rock pigeon, <i>Columba livia</i> | 71.3% | 52.5% | Hsu et al. 2017 |
| Collared flycatcher, <i>Ficedula albicollis</i> | 70.4% | 63.1% | this study |

References:

Hsu, B.-Y., Dijkstra, C., Darras, V.M., de Vries, B., Groothuis, T.G.G. (2017) Maternal thyroid hormones enhance hatching success but decrease nestling body mass in the rock pigeon (*Columba livia*). *Gen. Comp. Endocrinol.* 240: 174-181.

Ruuskanen, S., Darras, V.M., Visser, M.E., Groothuis, T.G.G. (2016) Effects of experimentally manipulated yolk thyroid hormone levels on offspring development in a wild bird species. *Horm. Behav.* 81: 38-44.