SUPPLEMENTARY MATERIAL

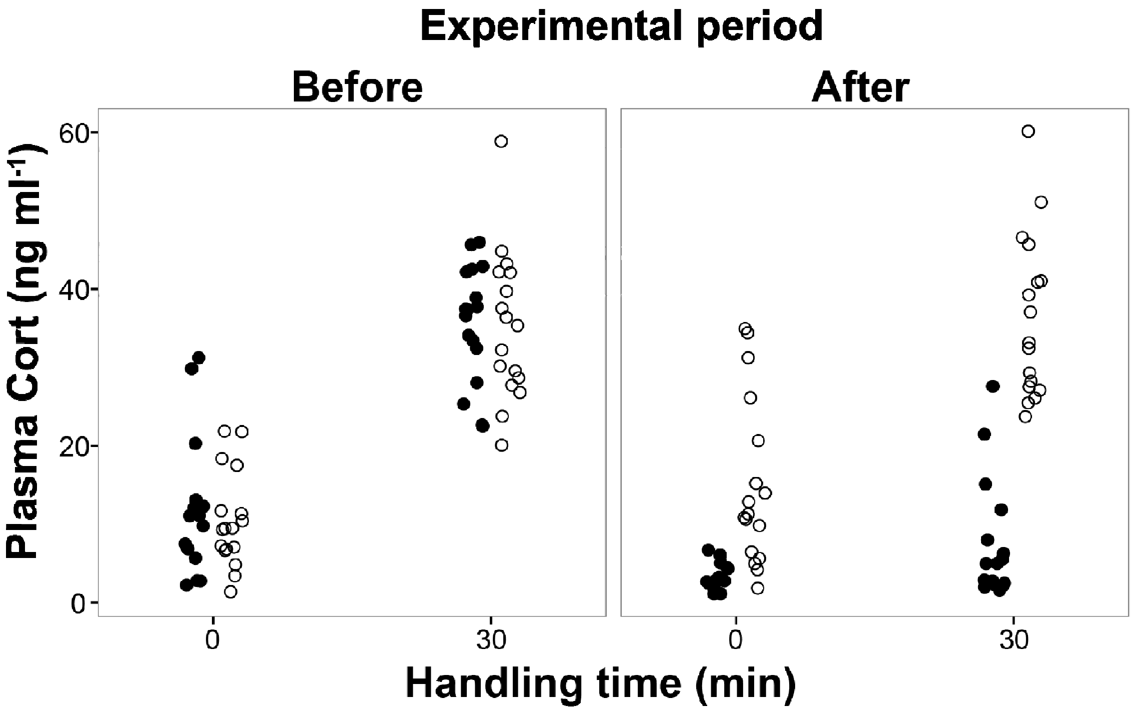

Figure S1. Effects of Cort implants on white storks' plasma Cort levels (Experiment 1). Baseline and stress-induced plasma Cort levels (handling time: 0 vs. 30 min post-capture) in free-living white stork nestlings from Experiment 1, both before (day 0) and after (day 7) the manipulation with time-release implants (TRP). Solid circles show Cort-implanted birds (N=17) and open circles sham-implanted individuals (N=17).

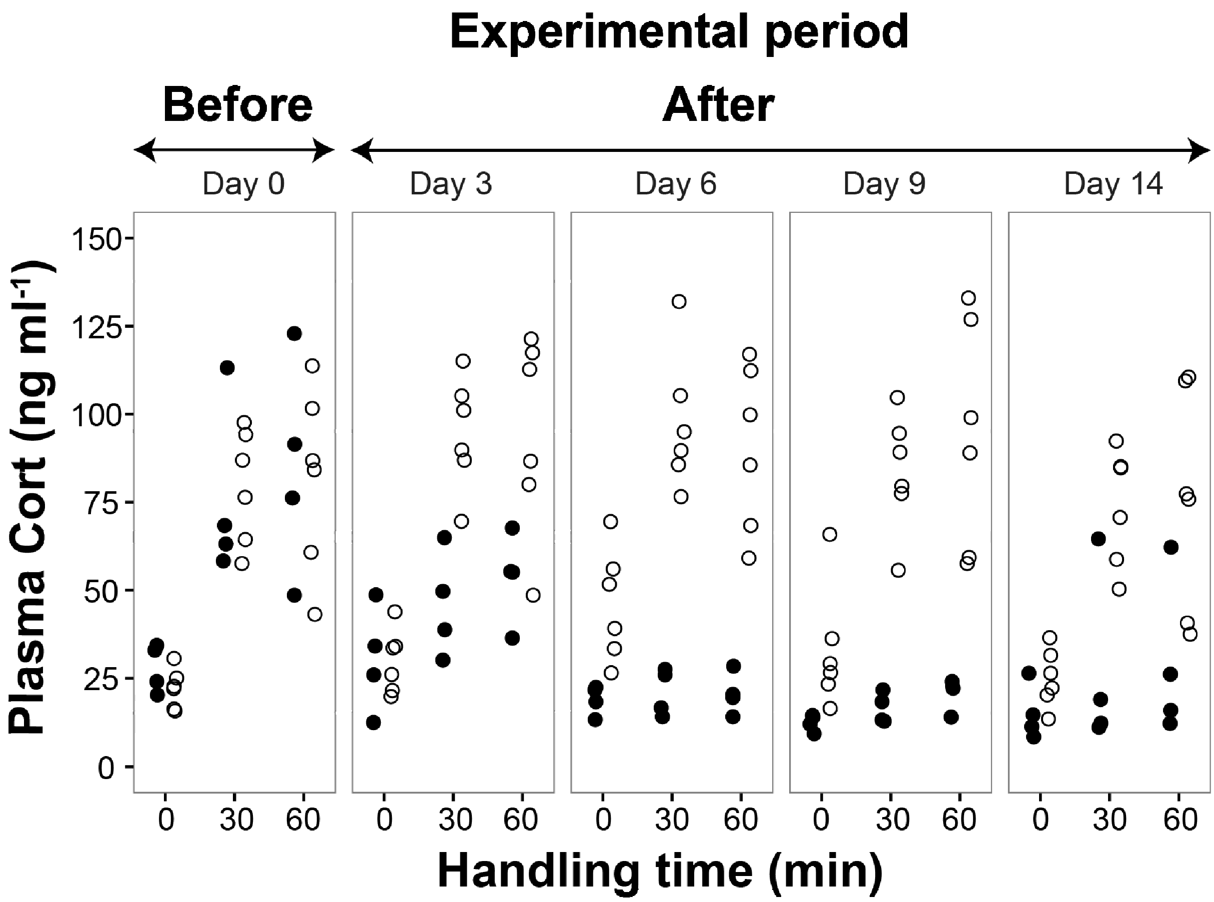

Figure S2. Effects of Cort implants on white storks' plasma Cort levels (Experiment 2). Baseline and stress-induced plasma Cort levels (handling time**:** 0-30-60 min post-capture) in captive white stork adults from Experiment 2, both before (day 0) and after (days 3, 6, 9 and 14) the manipulation with time-release implants (TRP). Solid circles show Cort-implanted birds (N=4) and open circles sham-implanted individuals (N=6).

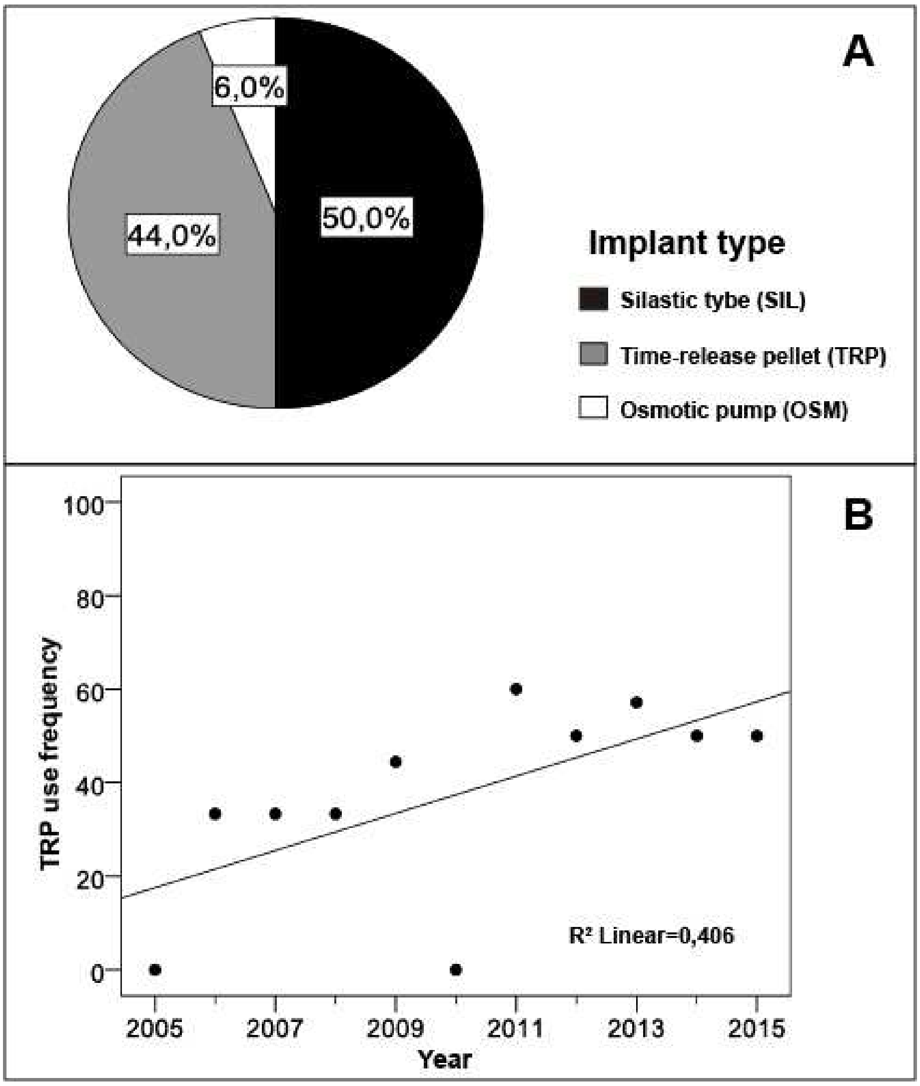

Figure S3. Researcher' patterns in the use of Cort implants. Researchers patterns for the use of different types of Cort implant methods in birds (A), and temporal change (B) in the use of time-release Cort implants (TRP) relative to other methods during 2005-2015 (N= 50 studies).

Table S1. Summary of published reports on the effects of Cort implants on circulating baseline and stress-induced Cort levels in birds (experiments sorted by type of implant and publication year).

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Table S2. Results from the multiple comparisons of means (Tukey contrasts) allowing the analysis of the significant 3-way interaction "Experimental Period X Handling time X Treatment" from Experiment 1. Reported P-values are adjusted following Bonferroni method (P-value codes: "*"<0.05; "**"<0.01; "***"<0.001).

Group 1			Group 2			Tukey contrast			
Experimental period	**Handling time**	**Treatment**	**Experimental period**	**Handling time**	**Treatment**	**Estimate**	**Std. Error**	**z value**	**P**
After	0	CORT	Before	0	CORT	-8.09	2.51	-3.219	*
Before	30	CORT	Before	0	CORT	24.37	2.51	9.698	***
After	30	CORT	Before	0	CORT	-3.95	2.51	-1.572	≥0.05
Before	0	Sham	Before	0	CORT	-0.74	2.80	-0.266	≥0.05
After	0	Sham	Before	0	CORT	3.75	2.80	1.337	≥0.05
Before	30	Sham	Before	0	CORT	23.98	2.80	8.541	***
After	30	Sham	Before	0	CORT	24.89	2.80	8.866	***
Before	30	CORT	After	0	CORT	32.46	2.51	12.917	***
After	30	CORT	After	0	CORT	4.14	2.51	1.647	≥0.05
Before	0	Sham	After	0	CORT	7.34	2.80	2.615	≥0.05
After	0	Sham	After	0	CORT	11.84	2.80	4.218	***
Before	30	Sham	After	0	CORT	32.07	2.80	11.422	***
After	30	Sham	After	0	CORT	32.98	2.80	11.747	***
After	30	CORT	Before	30	CORT	-28.32	2.51	-11.270	***
Before	0	Sham	Before	30	CORT	-25.12	2.80	-8.946	***
After	0	Sham	Before	30	CORT	-20.62	2.80	-7.343	***
Before	30	Sham	Before	30	CORT	-0.39	2.80	-0.139	≥0.05
After	30	Sham	Before	30	CORT	0.52	2.80	0.186	≥0.05
Before	0	Sham	After	30	CORT	3.20	2.80	1.140	≥0.05
After	0	Sham	After	30	CORT	7.70	2.80	2.744	≥0.05
Before	30	Sham	After	30	CORT	27.93	2.80	9.947	***
After	30	Sham	After	30	CORT	28.84	2.80	10.273	***
After	0	Sham	Before	0	Sham	4.50	2.51	1.791	≥0.05
Before	30	Sham	Before	0	Sham	24.73	2.51	9.840	***
After	30	Sham	Before	0	Sham	25.64	2.51	10.204	***
Before	30	Sham	After	0	Sham	20.22	2.51	8.049	***
After	30	Sham	After	0	Sham	21.14	2.51	8.413	***
After	30	Sham	Before	30	Sham	0.91	2.51	0.364	≥0.05

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Table S3. Results from the multiple comparisons of means (Tukey contrasts) allowing the analysis of the significant 3-way interaction "Experimental Period X Handling time X Treatment" from Experiment 2. Reported P-values are adjusted following Bonferroni method (P-value codes: "*"<0.05; "**"<0.01; "***"<0.001).

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