

Supporting Information

Mercury concentration in nestling feathers better predicts individual reproductive success than egg or nestling blood in a piscivorous bird.

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Table S1: Results of multi-model assessment of correlations between breeding parameters and [Hg] in samples from the nest. We show the increase in AICc values ($\Delta AICc$) with regards to the best model (marked in bold). We also show the family used in the analyses and the Poisson dispersion parameters when appropriate (dispersion values >1 indicate overdispersion and <1 underdispersion), and sample size for each analysis.

Figure S1: Location of breeding colonies monitored in this study within the greater Everglades area.

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	Model	AICc inc		Model	AICc inc
Alb [Hg]	Null	0	Alb [Hg]	Null	0
Clutch size	Hg	2.10	Brood size	Hg	1.99
Poisson	Hg:Year	3.89	Poisson	Hg:Year	1.87
Disp: 0.128	Hg +			Hg +	
	Year	3.56	Disp: 0.909	Year	2.29
	Hg *			Hg *	
N=166	Year	7.83	N=164	Year	6.17
	Year	1.49		Year	0.17
Alb [Hg]	Null	0.52	alb [Hg]	Null	2.65
Fledglings produced	Hg	2.58	Hatching success	Hg	4.62
Poisson	Hg:Year	2.19	Binomial	Hg:Year	4.28
Disp: 0.877	Hg +			Hg +	
	Year	2.09		Year	2.11
	Hg *			Hg *	
N=162	Year	4.17	N=164	Year	5.94
	Year	0		Year	0
alb [Hg]	Null	0	alb [Hg]	Null	2.80
Early survival	Hg	0.22	Fledglings per egg	Hg	4.77
Binomial	Hg:Year	2.76	Binomial	Hg:Year	1.29
	Hg +			Hg +	
	Year	4.10		Year	2.10
	Hg *			Hg *	
N=87	Year	5.23	N=162	Year	3.55
	Year	3.12		Year	0
Blood [Hg]	Null	0	Blood [Hg]	Null	0
Fledglings produced	Hg	0.76	Early survival	Hg	2.01
Poisson	Hg:Year	4.40	Binomial	Hg:Year	3.55
Disp: 0.877	Hg +			Hg +	
	Year	4.69		Year	3.55
	Hg *			Hg *	
N=77	Year	8.81	N=20	Year	7.17
	Year	3.92		Year	0.73

Blood [Hg]	Null	4.49	Red. Blood [Hg]	Null	0
Fledglings per egg	Hg	0.47	Fledglings produced	Hg	2.03
Binomial	Hg:Year	0.15	Poisson	Hg:Year	7.35
	Hg +			Hg +	
	Year	0	Disp: 0.121	Year	7.36
	Hg *			Hg *	
N=77	Year	4.13	N=34	Year	13.19
	Year	4.77		Year	4.93
Red. Blood [Hg]	Null	Na	Red. Blood [Hg]	Null	0
Early survival	Hg	Na	Fledglings per egg	Hg	1.00
Binomial	Hg:Year	Na	Binomial	Hg:Year	6.02
	Hg +			Hg +	
	Year	Na		Year	6.15
	Hg *			Hg *	
N=0	Year	Na	N=34	Year	11.53
	Year	Na		Year	4.97
Feather [Hg]	Null	0.63	Feather [Hg]	Null	1.89
Fledglings produced	Hg	0.00	Early survival	Hg	0
Poisson	Hg:Year	4.40	Binomial	Hg:Year	2.69
	Hg +			Hg +	
Disp: 0.219	Year	4.31		Year	3.37
	Hg *			Hg *	
N=73	Year	8.78	N=73	Year	7.14
	Year	4.41		Year	2.07
Feather [Hg]	Null	7.76			
Fledglings per egg	Hg	0			
Binomial	Hg:Year	3.79			
	Hg +				
	Year	3.55			
	Hg *				
N=73	Year	7.74			
	Year	7.69			

Figure S1: Location of breeding colonies monitored in this study within the greater Everglades area.



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