

Table S1. RDA results. Biplot scores represent the correlations between each axis and the explanatory variables. Species scores represent the correlation between each axis and the response variables (steroids).

	RDA1	RDA2	RDA3	PC1	PC2	PC3
<i>a) Eigenvalues and their importance</i>						
Eigenvalue	1.574	0.575	0.285	3.093	1.241	1.127
Proportion Explained	0.157	0.057	0.029	0.309	0.124	0.113
CumulativeProportion	0.157	0.215	0.243	0.553	0.677	0.789
<i>b) Biplot scores for constraining factors:</i>						
Predation Risk Treatment	-0.015	0.386	0.236	-	-	-
Year (2017)	0.242	0.433	-0.088	-	-	-
Predation Risk x Year	0.111	-0.618	0.149	-	-	-
<i>c) Species scores:</i>						
Estrone	-0.674	0.208	-0.244	-0.864	-0.240	-0.179
Androstenedione	-0.113	-0.205	0.083	-1.082	-0.405	0.618
Testosterone	0.110	-0.064	-0.121	-1.124	-0.703	0.353
Etiocholanolone	-0.164	0.817	-0.279	-0.800	0.269	0.062
Progesterone	-0.439	-0.535	-0.416	-0.627	-0.233	-0.272
Pregnenolone	-0.956	0.163	0.192	-0.756	0.491	-0.270
11-dehydrotetrahydrocorticosterone	-0.628	-0.023	0.387	-0.385	-0.275	-0.527
20 β -dihydrocorticosterone	-0.222	0.143	0.220	-0.164	-0.497	-1.128
5 β -dihydroprogesterone	-0.578	0.064	-0.083	-0.947	0.764	-0.082
Pregnanolone	-0.891	-0.262	-0.064	-0.636	0.722	-0.187

Table S2. Model results from univariate analyses based on (a) yolk steroid concentrations and (b) total amount of yolk steroids. Main effect coefficients and estimates of between nest variation are from models with interaction terms removed except the interaction was supported (bold; P<0.1). Results for fixed effects for models with 0 Nest ID variance are from li—near models using mean values for each nest.

a) Yolk steroid concentrations										
	2017 (vs. 2015)			Risk Treatment (vs. Control)			Interaction (Year X Risk)			Nest ID
Hormone	Estimate	Std. Error	P	Estimate	Std. Error	P	Estimate	Std. Error	P	Var.
Estrone	-1.1628	0.4127	0.015	-0.198	0.420	0.646	-0.969	0.824	0.266	0.395
Androstenedione	-0.292	0.523	0.591	0.348	0.533	0.532	0.331	1.124	0.777	0.715
Testosterone	0.065	0.482	0.895	0.106	0.491	0.833	0.173	1.035	0.871	0.557
Etiocholanolone	1.245	0.602	0.062	1.139	0.246	0.044	-2.441	0.780	0.009	0.361
Progesterone	-0.732	0.347	0.058	-0.790	0.354	0.047	0.967	0.672	0.181	0.179
Pregnenolone	-1.461	0.368	0.002	-0.025	0.374	0.946	-1.221	0.691	0.105	0
11-dehydrotetrahydrocorticosterone	-0.879	0.279	0.010	0.420	0.287	0.171	-0.005	0.601	0.994	0.008
20 β -dihydrocorticosterone	-0.496	0.541	0.377	0.032	0.551	0.955	-0.652	1.135	0.577	0
5 β -dihydroprogesterone	-0.822	0.343	0.032	-0.213	0.350	0.554	-0.501	0.713	0.496	0.116
Pregnanolone	-1.544	0.318	<0.001	-0.492	0.324	0.155	-0.508	0.660	0.457	0
b) Total amount of yolk steroids										
Estrone	-1.111	0.476	0.044	-0.134	0.470	0.782	-0.975	0.947	0.334	0.468
Androstenedione	-0.419	0.574	0.493	0.251	0.567	0.673	0.137	1.244	0.916	0.722
Testosterone	-0.079	0.518	0.883	-0.018	0.511	0.973	-0.087	1.106	0.939	0.532
Etiocholanolone	1.247	0.640	0.082	1.239	0.575	0.057	-2.232	0.890	0.034	0.740
Progesterone	-0.840	0.366	0.047	-0.874	0.365	0.039	0.827	0.711	0.279	0.177
Pregnenolone	-1.299	0.462	0.018	0.216	0.451	0.642	-1.246	0.883	0.192	0
11-dehydrotetrahydrocorticosterone	-0.867	0.297	0.018	0.407	0.299	0.206	-0.022	0.637	0.973	0.015
20 β -dihydrocorticosterone	-0.262	0.329	0.443	0.319	0.332	0.356	-0.464	0.677	0.509	0.008
5 β -dihydroprogesterone	-0.718	0.372	0.081	-0.124	0.372	0.744	-0.341	0.774	0.670	0.126
Pregnanolone	-1.347	0.265	0.001	-0.269	0.267	0.343	0.321	0.544	0.575	0.022

Table S3. Model results from univariate analyses based on yolk steroid concentrations based on a reduced dataset to account for lay order. Main effect coefficients and estimates of between nest variation are from models with interaction terms removed except the interaction was supported (bold; P<0.1). Note: P-values from models with 0 Nest ID variance are based on greater degrees of freedom (n-p for n=42).

Hormone	2017 (vs. 2015)			Risk Treatment (vs. Control)			Lay Order			Interaction (Year X Risk)			Nest ID
	Estimate	Std. Error	P	Estimate	Std. Error	P	Estimate	Std. Error	P	Estimate	Std. Error	P	
Estrone	-1.000	0.540	0.112	-0.544	0.575	0.380	0.214	0.094	0.031	-1.540	1.118	0.226	0.525
Androstenedione	-0.315	0.619	0.630	0.048	0.660	0.943	0.364	0.088	<0.001	0.483	1.479	0.758	0.760
Testosterone	0.164	0.514	0.7601	-0.464	0.547	0.427	0.465	0.07	<0.001	0.076	1.229	0.953	0.524
Etiocholanolone	2.438	0.389	<0.001	1.074	0.313	0.002	0.117	0.080	0.156	-3.41	0.474	<0.001	0
Progesterone	-0.485	0.384	0.248	-1.116	0.408	0.030	0.331	0.092	0.001	1.008	0.787	0.254	0.193
Pregnenolone	-1.317	0.263	<0.001	0.300	0.279	0.292	0.1725	0.095	0.080	-0.660	0.567	0.253	0
11-dehydrotetrahydrocorticosterone	-0.779	0.346	0.065	0.420	0.368	0.296	0.045	0.117	0.702	-0.023	0.819	0.978	0.036
20 β -dihydrocorticosterone	-0.385	0.370	0.334	0.435	0.394	0.307	0.152	0.132	0.257	-0.245	0.864	0.787	0.008
5 β -dihydroprogesterone	-0.710	0.414	0.131	-0.291	0.441	0.531	0.156	0.121	0.207	-0.697	0.933	0.485	0.137
Pregnanolone	-1.237	0.284	<0.001	-0.362	0.302	0.239	-0.065	0.103	0.531	0.239	0.624	0.704	0