# Influence of the number of calves and lactating adult females in a herd on the adrenocortical activity of free-ranging Asian elephants

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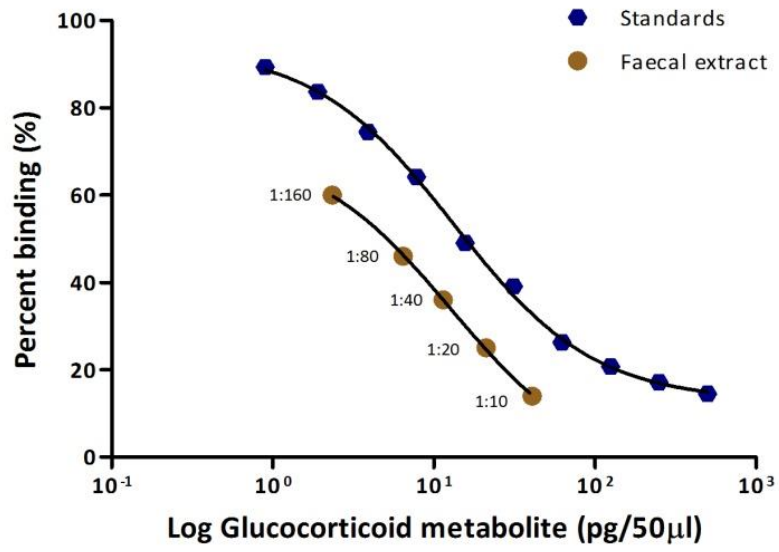
Figure S1: Graph showing parallelism between serial dilutions (ratios starting from 1:10 to 1:160) of a faecal extract from an elephant and standards of the 11-oxoetiocholanolone EIA.
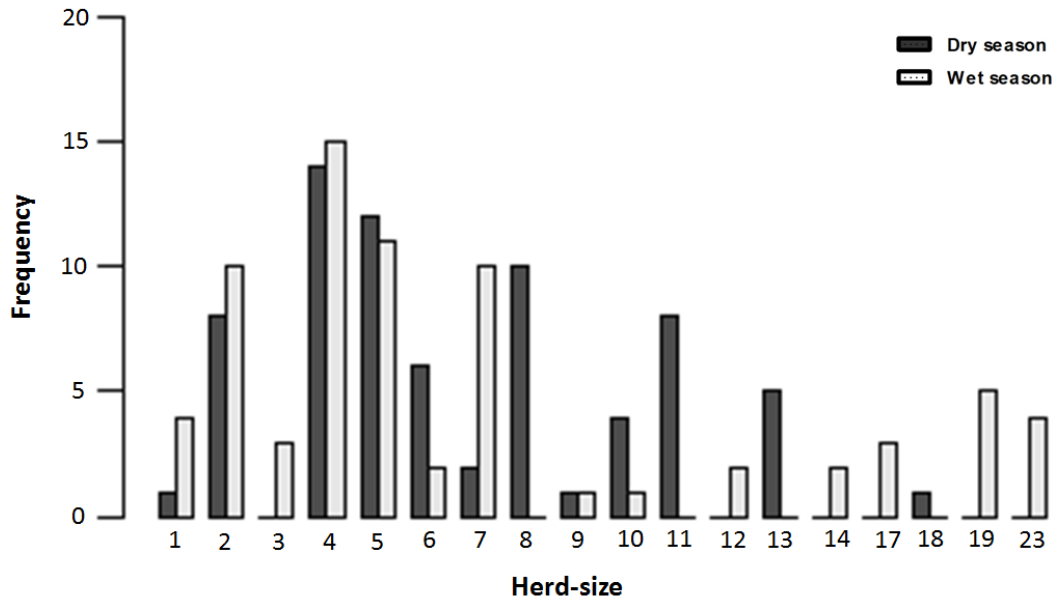
Figure S2: Histogram comparing the frequency of different herd sizes between dry and wet seasons in our study population. The average herd size was 7.05 ± 5.06 (6.71 ± 3.54 in the dry season and 7.42 ± 6.22 in the wet season) with individuals in a herd ranging from 1 to 23. Herds with 4 to 5 individuals were most frequent in both dry and wet seasons. The overall fGCM levels ranged between 3.82 and 0.14, with the mean fGCM levels being higher for adult females in herd size = 3 (1.75 ± 1.34 µg/g) and lower in herd size = 23 (0.35 ± 0.23 µg/g).
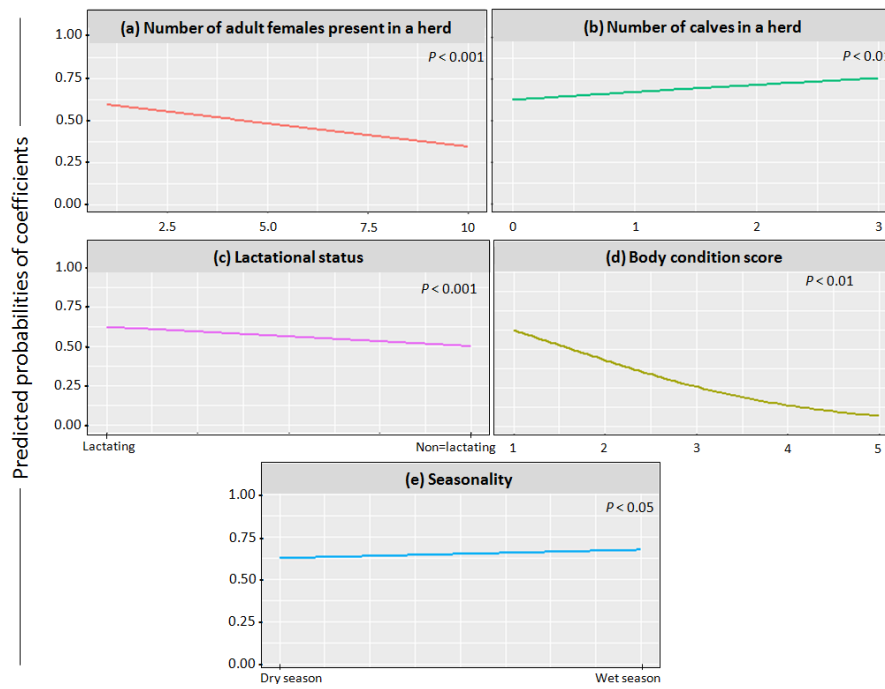
Figure S3 Plots representing the predicted probabilities (on the y-axis) of each fixed effect (number of adult females and calves present in a herd, their lactational status, BCS and seasonality; on the x-axis). Probability plots show the predicted patterns of each fixed effect (based on fixed effects intercept) for fGCM levels, as a response variable, predicted through GLMM (Table 1).
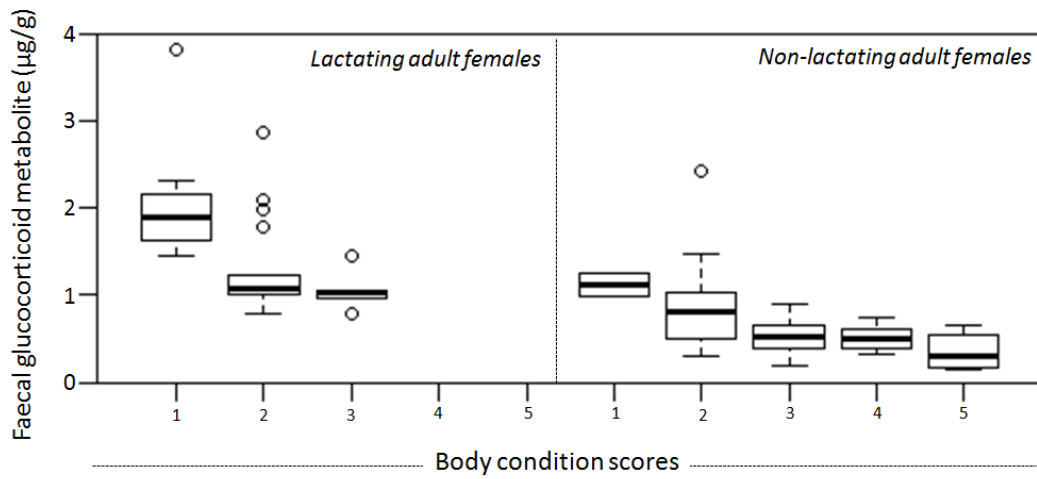
Figure S4: Box-plots representing fGCM levels and body condition scores (BCS) of lactating and non-lactating females. Lactating females had BCS-1 to BCS-3 and the median fGCM levels were comparatively higher than in non-lactating adult females. BCS-1 to BCS-5 corresponds to very thin, thin, medium, fat, and very fat individuals.

Table S1: Distribution of sampled adult females across seasonality, body condition score and lactational status.

Lactating status (per season)	BCS				
	1	2	3	4	5
Dry season:					
No. of lactating females	6	10	2	0	0
No. of non-lactating females	1	21	27	5	0
Wet season:					
No. of lactating females	1	8	3	0	0
No. of non-lactating females	1	16	31	9	4

Table S2: Model selection table representing seven GLMMs (with AIC delta score < 10) generated from the global model* using the function '*dredge*' in the package 'MuMIn' and ranked based on their AIC parameters. The top model (having lowest AIC, Delta score and highest AIC weight) has been marked bold.

| Intercept | Predictors | | | | | | | df | logLik | AIC | Delta | Weight |
	C	AF	BCS	Season	LS	BCS x Season	LS x BCS					
0.49	**-0.113**	**0.204**	**+**	**+**	**+**	**-**	**-**	**11**	**29.68**	**-37.4**	**0**	**0.61**
0.49	-0.111	0.200	+	+	+	-	+	13	30.57	-35.1	2.23	0.20
0.44	-0.117	0.216	+	+	+	+	-	14	30.60	-33.2	4.16	0.07
0.59	-0.112	0.213	+	-	+	-	-	10	26.33	-32.7	4.71	0.06
0.44	-0.117	0.220	+	+	+	+	+	16	31.60	-31.2	6.18	0.03
0.58	-0.111	0.212	+	-	+	-	+	12	27.16	-30.3	7.05	0.02
0.63	-0.038	-	+	+	+	-	-	10	24.54	-29.1	8.28	0.01

*global model = glmer (formula = fGCM ~ No. of calves (C) + No. of adult females (AF) + Lactational status (LS) + BCS + Season + (Season x BCS) + (BCS x Lactation status) + (1|Identity), family = Gamma (link = log), data)