## ERRATUM



## Erratum to: Fallback Foods of Red Leaf Monkeys (*Presbytis rubicunda*) in Danum Valley, Borneo

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In the published paper, the number of fruiting/flushing trees was erroneously scored as zero for February–May 2008, rather than as missing data due to the incomplete phenology recording. The authors apologize sincerely for this error. Following reanalysis without these incorrect data, we found that both fruiting and flushing phenology affect seasonal variation in the diet, rather than fruiting phenology alone. The final conclusion is unchanged.

The following changes correct this error, with new text in bold:

Page 325: Methods subsection "Phenology" should read:

We used data on monthly tree phenology accumulated by the Danum Valley Field Centre since July 2004, using the same plot set as Norhayati (2001) and the same protocol as the census conducted from August 1997 until December 2000 (Wong *et al.* 2005). They monitored flushing, flowering, and fruiting activities of 511-533 identified trees of  $\geq 10$  cm diameter at breast height (DBH) every month. Plots were situated in primary forest, including the home range of the study group. The monitored area consisted of five transects, each  $20 \times 100$  m, placed every 400 m along the 2-km trail. We did not use data for February–May 2008 because data on species composition in these months were incomplete.

Page 326: paragraph 2 of Methods subsection "Data Analysis" should read:

We examined the effect of the proportion of fruiting and flushing trees in the phenology survey on the proportion of feeding time of the particular food category

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(or species) using a generalized linear model (GLM). We used data for each month as the unit of analysis (N=21). The data were not significantly different from normality (Kolmogorov-Smirnov test, P>0.05). We combined fruit and seed feeding because we expected these two categories of foods to respond in a similar way to fruit availability. We used only the food species in the phenology census for the analyses, although we also present data on all food species. The variance inflation factor (VIF) was 1.34, which was less than the cut-off value (5), so collinearity among independent factors did not affect the results. We chose the model with the smallest AIC among all possible combinations of independent factors, including the null model.

Pages 327–328: Replace the two paragraphs in Results subsection "Seasonal variation" with the following one:

Red leaf monkeys increased seed and fruit consumption and decreased consumption of *Spatholobus macropterus* young leaves when fruit availability was high and young leaf availability was low, but none of the factors tested affected non-*Spatholobus macropterus* young leaf consumption (Fig. 4). The best-fit model predicting fruit+seed consumption, young leaf consumption, and consumption of *Spatholobus macropterus* included only the percentage of trees flushing (Table II). The second-best fit model predicting fruit+seed consumption, young leaf consumption, and consumption of *Spatholobus macropterus* included both flushing and fruiting phenology (Table II).  $\Delta$ AIC values were small in all cases (0.5–1.0). The null model was the best-fit model for the consumption of young leaves other than *Spatholobus macropterus*.

Page 331: Add the following paragraph at the beginning of the Discussion subsection "Response to Fruiting Seasonality":

Our results were not straightforward with respect to the factors affecting seasonal variation in diet. Red leaf monkeys increased seed and fruit consumption when young leaf availability (measured as the number of flushing trees) was low and fruit availability was high. This does not mean that the monkeys preferred young leaves, however, because young leaf consumption for species other than Spatholobus macropterus (most from trees) was not related to the number of flushing trees in the phenology plots. Correlations between flushing phenology and overall young leaf consumption appear to be due to the consumption of young leaves of Spatholobus macropterus, which constituted 60.3 % of young leaf consumption. There are two possible explanations for the pattern observed. First, red leaf monkeys may prefer seeds and increase their consumption of seeds and decrease consumption of Spatholobus macropterus in response to increased fruit availability. The apparent relationship between diet and flushing phenology would then be a by-product of the negative correlations between fruiting and flushing phenology in the current data set (N = 21, r = -0.51, P = 0.019). Second, the availability of young leaves of Spatholobus macropterus (which we did not measure) may have been the real influencing factor, and may correlate positively with the community-wide availability of young tree leaves. In this scenario, young leaves of Spatholobus macropterus are preferred foods and red leaf monkeys



increase consumption of these leaves when they increase in availability, which cooccurs with the increase in flushing trees and decrease in fruiting trees. However, we consider the second explanation unlikely because *Spatholobus macropterus* were so common in the monkeys' home range. When we surveyed the number of stems of *Spatholobus macropterus* in July 2010, the number of flushing *S. macropterus* stems was 75/ha, more than three times than the number of fruiting stems at the times of maximum fruit availability (23/ha, June 2007). We rarely observed the monkeys reusing young leaf food patches of *Spatholobus macropterus*, but they frequently reused seed-feeding patches (Hanya, *unpubl. data*), suggesting that the number of fruiting trees was a limiting factor but that of flushing stems of *Spatholobus macropterus* was not. Therefore, we consider the first explanation to be more likely: red leaf monkeys prefer seeds and increase seed consumption in response to increased availability.

Page 330: Replace Table II with the following table:

Table II Best-fit generalized linear models for the effect of phenology on seasonal variation in diet

a. Feeding time on fruits and seeds, best-fit model					b. Feeding time on fruits and seeds, second best-fit model				
AIC=-6.90, R^2=0.32, P=0.0044					AIC=-6.40, R^2=0.33, P=0.0100				
	Coefficient	SE	t	P		Coefficient	SE	t	P
(Intercept)	0.72	0.07	10.53	0.000	(Intercept)	0.61	0.11	5.41	0.000
%Flushing tree	-1.46	0.45	-3.229	0.004	%Flushing tree	-1.16	0.52	-2.223	0.039
					%Fruiting tree	2.78	2.41	1.153	0.264
c. Feeding time on young leaves, best-fit model					d. Feeding time on young leaves, second best-fit model				
AIC=-13.1, R^2=0.37, P=0.0021					AIC=-13.1, R^2=0.37, P=0.0021 AIC=-12.06, R^2=0.36, P=0.0069				
	Coefficient	SE	t	P		Coefficient	SE	t	P
(Intercept)	0.25	0.06	4.24	0.000	(Intercept)	0.32	0.10	3.24	0.005
%Flushing tree	1.39	0.39	3.547	0.0022	%Flushing tree	1.18	0.46	2.58	0.019
					%Fruiting tree	-1.90	2.11	-0.90	0.378
e. Feeding time on <i>Spatholobus macropterus</i> young leaves, best-fit model					f. Feeding time on <i>Spatholobus macropterus</i> young leaves, second best-fit model				
AIC=-18.5, R^2=0.39, P=0.0016					AIC=-17.6, R^2=0.38, P=0.0049				
	Coefficient	SE	t	P		Coefficient	SE	t	P
(Intercept)	0.11	0.05	2.12	0.047	(Intercept)	0.18	0.09	2.05	0.055
%Flushing tree	1.27	0.34	3.68	0.002	%Flushing tree	1.07	0.40	2.67	0.016
					%Fruiting tree	-1.82	1.85	-0.98	0.339
g. Feeding time on non-Spatholobus macropterus young leaves, best-fit model									
Null model was the best-fit model (AIC=-24.2)									
%Fruiting tree: Percentage of trees bearing food fruits or seeds									
%Flushing tree: Percentage of trees flushing food young leaves									



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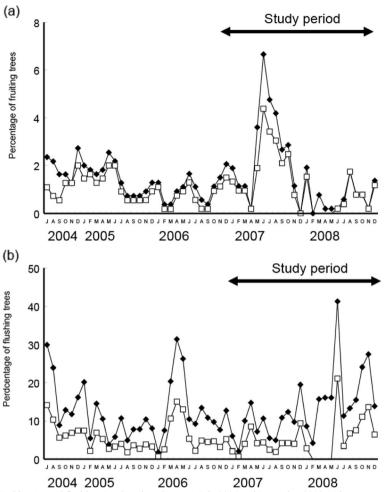


Fig. 2 Fruiting (a) and flushing (b) phenology between July 2004 and December 2008. Values are percentage of total trees in the sample plot bearing fruit at a given time. Closed diamonds: all trees; open squares: red leaf monkey food species only. No data were available for food species in February–May 2008.



Page 330: Replace Fig. 4 with the following figure:

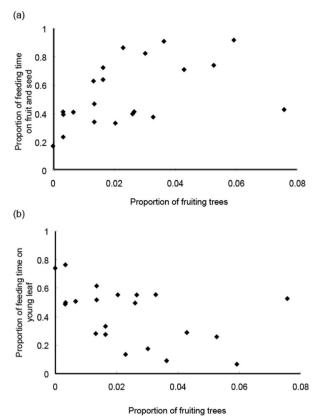


Fig. 4 Relationships between fruiting phenology (proportion of trees bearing fruits in the phenology plot) and time spent feeding on (a) fruits and seeds and (b) young leaves.



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Page 331: Replace Fig. 5 with the following figure:

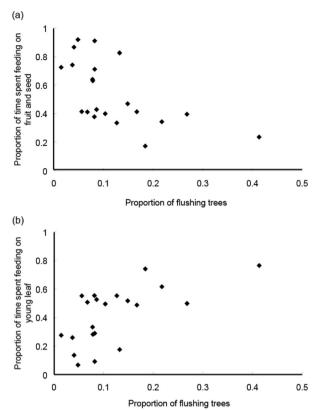


Fig. 5 Relationships between flushing phenology (proportion of trees having young leaves in the phenology plot) and time spent feeding on (a) fruits and seeds and (b) young leaves.

