

Table S1. Measured magnesium isotopic ratios in mammals and plants from La Lopé National Park, Gabon

Sample number SEGC n°	Origin	Taxon	maturity	sex	Tissue	Tooth	Sample weight for Mg analysis (in mg)	$\delta^{26}\text{Mg}$ average (‰)	$2\sigma$	$\delta^{26}\text{Mg}$ average (‰)	$2\sigma$	n	Log(Sr/Ca)	Log(Ba/Ca)	Log(Mg/Ca)	$\delta^{13}\text{C}$ V-PDB (‰)	$\delta^{18}\text{O}$ V-PDB (‰)	Mg ppm	
<b>Faunivores</b>																			
86	La Lopé, Gabon	<i>Carnivora indet</i>	-	-	enamel	RM	0.71	-0.14	0.04	-0.09	0.03	4	-0.6	-1.8	0.8	-13.56	-	7700	
91	La Lopé, Gabon	<i>Carnivora indet</i>	adult	-	enamel	Lc	1.42	-0.54	0.06	-0.30	0.06	4	-0.3	-2.2	0.7	-21.45	-	5078	
69	La Lopé, Gabon	<i>Carnivora indet</i>	adult	-	enamel	Lc	0.85	-0.32	0.16	-0.16	0.07	4	0.5	-0.7	0.5	-15.94	-7.31	3998	
10	La Lopé, Gabon	<i>Genetta servalina?</i>	adult	male	enamel	I	0.66	-0.05	0.08	-0.03	0.07	4	0.3	-0.2	0.6	-14.20	-	5616	
3	La Lopé, Gabon	<i>Genetta sp.</i>	adult	male	enamel	Lc	0.50	-0.09	0.08	0.01	0.04	4	0.5	-0.2	0.8	-12.55	-	9270	
<b>Omnivores/Frugivores</b>																			
31	La Lopé, Gabon	<i>Mandrillus sphinx</i>	adult	female	enamel	LM3	0.31	-0.01	0.07	-0.01	0.04	4	0.4	-0.7	0.6	-17.82	-4.93	3276	
38	La Lopé, Gabon	<i>Mandrillus sphinx</i>	juvenile	-	enamel	RM3	0.34	-0.60	0.08	-0.29	0.04	4	-0.1	-1.3	0.3	-17.11	-7.43	3467	
42	La Lopé, Gabon	<i>Mandrillus sphinx</i>	adult	-	enamel	-	0.34	-0.26	0.01	-0.14	0.02	4	-0.1	-1.5	0.5	-17.08	-1.63	1639	
50	La Lopé, Gabon	<i>Mandrillus sphinx</i>	adult	male	enamel	LM2	0.33	-0.13	0.08	-0.06	0.02	4	0.3	-0.7	0.5	-17.06	-6.28	2008	
52	La Lopé, Gabon	<i>Mandrillus sphinx</i>	adult	male	enamel	RM3	0.81	-0.31	0.13	-0.16	0.06	4	0.8	0.0	0.4	-17.54	-5.36	4103	
61	La Lopé, Gabon	<i>Mandrillus sphinx</i>	adult	female	enamel	LM3	0.76	-0.70	0.14	-0.45	0.06	4	0.0	-1.0	0.5	-16.76	-4.31	4034	
84	La Lopé, Gabon	<i>Mandrillus sphinx</i>	adult	female	enamel	RM3	0.89	0.01	0.14	0.00	0.07	4	0.5	-0.5	0.3	-16.44	-6.18	3229	
85	La Lopé, Gabon	<i>Mandrillus sphinx</i>	adult	female	enamel	Rm3	0.54	-0.46	0.09	-0.22	0.02	4	0.2	-1.1	0.4	-16.82	-5.98	4105	
20	La Lopé, Gabon	<i>Potamochoerus porcus</i>	juvenile	-	enamel	-	0.72	-0.08	0.11	-0.04	0.05	4	-	-	-	-15.26	-6.93	-	
21	La Lopé, Gabon	<i>Potamochoerus porcus</i>	juvenile	-	enamel	LP2	0.26	-0.11	0.06	-0.05	0.02	4	-	-	-	-15.16	-6.46	-	
23	La Lopé, Gabon	<i>Potamochoerus porcus</i>	adult	male	enamel	LP3	0.69	-0.26	0.05	-0.15	0.05	4	0.7	-0.6	0.4	-16.37	-6.29	3891	
24	La Lopé, Gabon	<i>Potamochoerus porcus</i>	adult	-	enamel	RP2	0.52	-0.62	0.03	-0.32	0.00	4	0.8	-0.2	0.8	-16.08	-6.91	7033	
25	La Lopé, Gabon	<i>Potamochoerus porcus</i>	juvenile	-	enamel	RM1	0.83	-0.49	0.14	-0.25	0.05	4	0.4	-1.1	0.8	-17.59	-6.22	8954	
26	La Lopé, Gabon	<i>Potamochoerus porcus</i>	subadult	-	enamel	RP2	0.50	-0.19	0.17	-0.09	0.07	4	0.7	-0.6	0.2	-16.30	-7.65	2421	
60	La Lopé, Gabon	<i>Potamochoerus porcus</i>	adult	-	enamel	RM1	1.23	-0.76	0.14	-0.44	0.12	4	0.6	-0.9	0.0	-16.83	-7.11	1340	
<b>Grazers</b>																			
13	La Lopé, Gabon	<i>Syncerus caffer nanus</i>	adult	-	enamel	M1 or M2	0.35	-0.47	0.11	-0.24	0.03	4	0.3	-0.3	0.5	-3.02	-2.54	3320	
14	La Lopé, Gabon	<i>Syncerus caffer nanus</i>	adult	-	enamel	RM1	0.63	-0.54	0.08	-0.27	0.04	4	-	-	-	-4.59	-3.18	-	
15	La Lopé, Gabon	<i>Syncerus caffer nanus</i>	adult	-	enamel	Rm2	0.41	-0.87	0.08	-0.44	0.07	4	-0.3	-0.8	0.4	-7.13	-5.16	2504	
35	La Lopé, Gabon	<i>Syncerus caffer nanus</i>	adult	female	enamel	Rm2	0.47	-0.34	0.04	-0.16	0.07	4	0.4	-0.1	0.2	-5.05	-5.36	2690	
58	La Lopé, Gabon	<i>Syncerus caffer nanus</i>	juvenile	-	enamel	LM	0.71	-0.17	0.06	-0.08	0.05	4	0.3	-0.3	0.3	-9.08	-5.08	2899	
65	La Lopé, Gabon	<i>Syncerus caffer nanus</i>	adult	-	enamel	LP3	0.57	-0.42	0.16	-0.20	0.13	4	0.2	-0.5	0.3	-4.73	-4.39	2588	
74	La Lopé, Gabon	<i>Syncerus caffer nanus</i>	adult	-	enamel	Rm	0.94	-0.64	0.07	-0.36	0.07	4	0.5	0.1	0.2	-3.73	-4.06	2983	
90	La Lopé, Gabon	<i>Syncerus caffer nanus</i>	adult	-	enamel	LM	0.72	-0.66	0.06	-0.35	0.02	4	0.2	-0.4	0.2	-4.46	-4.15	3038	
92	La Lopé, Gabon	<i>Syncerus caffer nanus</i>	adult	-	enamel	LM2	0.72	-0.65	0.15	-0.34	0.10	4	0.3	-0.4	0.5	-	-	3745	
93	La Lopé, Gabon	<i>Syncerus caffer nanus</i>	adult	-	enamel	M	1.34	-0.48	0.13	-0.25	0.04	4	0.4	0.0	0.4	-	-	3366	
97	La Lopé, Gabon	<i>Syncerus caffer nanus</i>	adult	-	enamel	M1 or M2	0.80	-0.78	0.02	-0.36	0.09	4	0.0	-0.7	0.5	-	-	2889	
<b>Browsers</b>																			
22	La Lopé, Gabon	<i>Loxodonta cyclotis</i>	juvenile	-	enamel	LM	1.06	-0.87	0.08	-0.46	0.08	4	0.2	-1.1	0.3	-19.94	-5.44	2790	
LC1	La Lopé, Gabon	<i>Loxodonta cyclotis</i>	juvenile	-	enamel	LM	0.97	-1.01	0.06	-0.52	0.02	4	0.5	-0.7	0.1	-15.78	-3.32	2153	
LC2	La Lopé, Gabon	<i>Loxodonta cyclotis</i>	juvenile	-	enamel	LM	0.68	-0.78	0.05	-0.40	0.04	4	0.2	-0.9	0.2	-17.86	-4.14	2473	
LC3	La Lopé, Gabon	<i>Loxodonta cyclotis</i>	adult	-	enamel	LM2	0.79	-0.54	0.05	-0.29	0.03	4	0.5	-0.3	0.5	-16.84	-2.68	5381	
LC4	La Lopé, Gabon	<i>Loxodonta cyclotis</i>	adult	-	enamel	LM2	0.59	-0.66	0.08	-0.33	0.03	4	0.5	-0.2	0.3	-18.32	-3.11	3192	
LC5	La Lopé, Gabon	<i>Loxodonta cyclotis</i>	adult	-	enamel	LM	0.99	-1.08	0.12	-0.55	0.07	4	0.3	-0.7	0.2	-16.30	-4.68	1973	
LC32	La Lopé, Gabon	<i>Loxodonta cyclotis</i>	-	-	enamel	M	0.81	-0.87	0.05	-0.45	0.08	4	0.4	-0.5	0.3	-16.68	-3.74	2717	
39	La Lopé, Gabon	<i>Gorilla gorilla gorilla</i>	young	male	enamel	RM1	0.84	-0.70	0.11	-0.36	0.05	4	0.4	-0.8	0.2	-17.54	-6.05	3220	
40	La Lopé, Gabon	<i>Gorilla gorilla gorilla</i>	adult	male	enamel	LM3	0.77	-0.74	0.14	-0.24	0.04	4	0.2	-0.2	0.2	-16.49	-6.49	3114	
41	La Lopé, Gabon	<i>Gorilla gorilla gorilla</i>	adult	male	enamel	M2	0.64	-0.74	0.07	-0.36	0.03	4	0.6	-0.4	0.7	-16.10	-6.92	8221	
72	La Lopé, Gabon	<i>Gorilla gorilla gorilla</i>	adult	-	enamel	I	0.90	-0.70	0.09	-0.37	0.03	4	0.4	0.0	0.4	-7.24	-4.01	3910	
43	La Lopé, Gabon	<i>Tragelaphus scriptus</i>	adult	male	enamel	Rp3	0.34	-0.58	0.04	-0.28	0.03	4	0.5	0.2	0.1	-17.51	-5.58	2075	
45	La Lopé, Gabon	<i>Tragelaphus scriptus</i>	adult	male	enamel	LM3	0.42	-0.53	0.09	-0.26	0.08	4	0.7	0.2	0.4	-16.01	-5.26	4186	
19	La Lopé, Gabon	<i>Tragelaphus scriptus</i>	adult	male	enamel	M	0.72	-0.65	0.10	-0.33	0.01	4	0.6	-0.2	0.3	-	-	3565	
47	La Lopé, Gabon	<i>Cephalophus monticola</i>	adult	-	enamel	Rm3	0.65	-0.91	0.10	-0.47	0.07	4	0.4	-0.8	0.4	-16.19	-6.67	948	
89	La Lopé, Gabon	<i>Cephalophus nigrifrons</i>	-	-	enamel	M	0.72	-0.89	0.11	-0.46	0.06	4	0.8	0.2	0.6	-15.81	-5.15	5856	
64	La Lopé, Gabon	<i>Cephalophus sp.</i>	-	-	enamel	LP2	0.82	-0.66	0.12	-0.34	0.05	4	0.4	-0.7	0.6	-15.37	-5.25	1758	
17	La Lopé, Gabon	<i>Cephalophus sylvicultor</i>	-	-	enamel	LP3	0.66	-1.29	0.21	-0.66	0.11	4	0.5	-0.5	0.1	-14.22	-5.63	2256	
<b>Plants</b>																			
PG2	La Lopé, Gabon	<i>Uapaca sp.</i>	leaves	-	-	-	121.74	-0.63	0.03	-0.33	0.04	4	1.3	1.0	0.0	-28.94	-	245	
PG3	La Lopé, Gabon	<i>Anthoecleista vogelii</i>	leaves	-	-	-	113.20	-0.48	0.16	-0.25	0.06	4	1.2	0.6	0.5	-28.71	-	37	
PG4	La Lopé, Gabon	<i>Klainea sp.</i>	leaves	-	-	-	107.76	-1.41	0.09	-0.73	0.04	4	0.9	0.8	1.4	-29.24	-	521	
PG5	La Lopé, Gabon	<i>Lophira alata</i>	leaves	-	-	-	104.34	-1.60	0.09	-0.83	0.06	4	-	-	-	-29.30	-	205	
PM1	La Lopé, Gabon	<i>Myrsine sp.</i>	leaves	-	-	-	126.83	-0.65	0.03	-0.33	0.04	2	1.1	0.4	-0.7	-32.04	-	649	
PM2	La Lopé, Gabon	<i>Lophira sp.</i>	leaves	-	-	-	111.34	-1.05	0.02	-0.53	0.02	2	0.9	0.5	2.1	-34.58	-	1812	
PM4	La Lopé, Gabon	<i>Megaphrynium sp.</i>	leaves	-	-	-	118.51	-0.79	0.12	-0.40	0.04	2	0.9	0.7	2.7	-34.06	-	1962	
PM5	La Lopé, Gabon	<i>Gambeya africana</i>	leaves	-	-	-	112.70	-1.27	0.05	-0.63	0.01	2	-	-	-	-29.82	-	1643	
PS1	La Lopé, Gabon	<i>Psidium guineensis</i>	leaves	-	-	-	120.63	-1.54	0.01	-0.79	0.04	2	1.2	1.0	1.8	-31.24	-	1283	
PS2	La Lopé, Gabon	gramineae indet.	leaves	-	-	-	104.75	-1.63	0.00	-0.82	0.01	2	1.1	1.0	2.3	-11.82	-	484	
PS4	La Lopé, Gabon	<i>Crassopertys sp.</i>	leaves	-	-	-	123.70	-0.50	0.00	-0.25	0.02	2	1.4	1.0	1.7	-30.87	-	1030	
PS5	La Lopé, Gabon	<i>Naucllea sp.</i>	leaves	-	-	-	119.41	-1.13	0.06	-0.57	0.04	2	1.3	0.7	1.9	-30.94	-	1179	
<b>Feces</b>																			
du16	La Lopé, Gabon	<i>Genetta sp.</i>	feces	-	-	-	-	-1.49	0.07	-0.73	0.04	2	-	-	-	-	-	-	
du11	La Lopé, Gabon	<i>Mandrillus sphinx</i>	feces	-	-	-	-	-1.66	0.13	-0.83	0.13	2	-	-	-	-	-	-	
du15	La Lopé, Gabon	<i>Mandrillus sphinx</i>	feces	-	-	-	-	-1.82	-	-0.93	-	1	-	-	-	-	-	-	
du8	La Lopé, Gabon	<i>Mandrillus sphinx</i>	feces	-	-	-	-	-1.79	-	-0.86	-	1	-	-	-	-	-	-	
du10	La Lopé, Gabon	<i>Potamochoerus porcus</i>	feces	-	-														