Table S2 List of genes amplified showing the respective primers used and PCR reaction settings. F = forward primer, R = reverse primer. The thermal profile for *IRBP* amplification consisted of a touch-down annealing protocol from 52 to 56 °C. Primer references: *CYTB* (Kocher *et al.*, 1989), *COI* (Robins *et al.*, 2007), and *IRBP* (Stanhope *et al.*, 1996).

Loci		Primer Sequence	*De*	*An*	*Ex*	*Cy*	
CYTB	*F*	GGACTTATGACATGAAAAATCATCGTTG	30s, 95°C	30s, 59°C	60s, 72°C	40
	R	GATTCCCCATTTCTGGTTTACAAGAC				
COI	*F*	CCTACTCRGCCATTTTACCTATG	30s, 95°C	30s, 56°C	30s, 72°C	35
	R	ACTTCTGGGTGTCCAAAGAATCA				
IRBP	*F*	ATGGCCAAGGTCCTCTTGGATAACTACTGCTT	20s, 94°C	20s, 52°C	80s, 72°C	10
	R	CGCAGGTCCATGATGAGGTBCTCCGTGTCCTG	20s, 94°C	20s, 56°C	80s, 72°C	20

References

Kocher, T. D., et al. 1989. Dynamics of mitochondrial DNA evolution in animals: amplification and sequencing with conserved primers. Proc Natl Acad Sci U S A 86:6196-6200.

Robins, J. H., Hingston, M., MATISOO-SMITH, E., & Ross, H. A. 2007. Identifying Rattus species using mitochondrial DNA. Molecular ecology notes 7:717-729.

Stanhope, M. J., Smith, M. R., Waddell, V. G., Porter, C. A., Shivji, M. S., & Goodman, M. 1996. Mammalian evolution and the interphotoreceptor retinoid binding protein (IRBP) gene: convincing evidence for several superordinal clades. J Mol Evol 43:83-92.

Table S3 summary statistics of linear cranial measurements and centroid size (CS) of species ascribed to the non-Ethiopian *L. flavopunctatus* members. The values represent the 95% CI mean | standard deviation | minimum-maximum values. CS, centroid size; CI, Condylo-insicive length; ZB, Greatest zygomatic breadth; BBC, Breadth of braincase; BOC, Breadth across the occipital condyles; LOB, Least interorbital breadth; BR, Greatest breadth of rostrum; PPL, Postpalatal length; LBP, Length of bony palate; LIF, Length of incisive foramen; LD, Length of diastema; BZP, Breadth of zygomatic plate; LAB, Length of auditory bulla; ALM, Alveolar length of the maxillary toothrow; BM1, coronal breadth of the first upper molar. N = number of samples. Refer to Onditi *et. al.,* (2019) for an illustration of the measurements.

Clade	N	CS	CI	ZB	BBC	PPL	LD	BOC
L. dudui	29	53.28|1.71|50.63-56.26	27.22|0.88|25.82-28.70	14.29|0.62|12.81-15.20	12.59|0.48|11.85-13.34	11.59|0.49|10.60-12.55	7.80|0.34|7.16-8.52	7.01|0.24|6.63-7.53
L. stanleyi	199	54.98|1.88|49.54-61.47	27.99|0.98|24.79-31.43	14.72|0.57|13.12-16.67	12.81|0.35|12.00-13.89	11.82|0.56|10.11-13.60	7.98|0.40|6.41-8.98	7.13|0.24|6.60-8.09
L. laticeps	21	55.08|1.17|53.72-58.99	28.24|0.93|27.04-30.98	14.93|0.48|14.10-15.98	13.06|0.26|12.50-13.79	11.90|0.52|11.20-13.56	8.02|0.33|7.43-8.79	7.25|0.20|6.95-7.77
L. makundii	28	55.47|1.50|52.58-57.94	28.36|0.72|26.85-29.55	14.74|0.52|13.73-15.84	12.45|0.35|11.85-13.11	11.97|0.39|11.16-12.83	8.01|0.31|7.46-8.61	6.99|0.18|6.53-7.31
L. zena	108	55.60|2.60|49.35-60.72	28.32|1.23|25.27-31.41	14.72|0.70|12.73-16.62	12.69|0.38|11.43-13.71	11.80|0.71|10.00-14.02	8.12|0.48|6.96-9.13	7.13|0.27|6.49-7.80
L. verhageni	15	56.08|2.60|52.16-60.95	28.70|1.23|26.59-31.01	14.50|0.49|13.89-15.51	12.90|0.30|12.32-13.52	12.12|0.59|11.33-13.20	8.04|0.54|7.16-9.05	7.30|0.23|7.00-7.77
L. cf. *cinereus*	57	56.16|1.78|51.04-60.60	28.72|0.91|26.21-30.93	15.21|0.58|13.71-16.38	13.14|0.36|12.48-13.96	12.26|0.52|10.78-13.70	8.19|0.41|6.98-9.10	7.23|0.23|6.72-7.65
L. kilonzoi	67	56.67|2.00|52.45-60.25	28.81|0.97|26.94-30.78	15.10|0.62|13.62-16.34	12.96|0.31|12.30-13.62	12.22|0.58|10.99-13.27	8.18|0.39|7.47-9.32	7.30|0.28|6.34-7.92
L. machangui	79	56.82|1.94|52.05-60.86	29.07|1.06|26.24-31.55	15.14|0.56|13.92-16.34	12.92|0.30|12.18-13.58	12.25|0.54|10.71-13.76	8.39|0.44|7.24-9.25	7.28|0.26|6.79-7.93
L. aquilus	13	56.88|0.87|55.12-57.93	29.26|0.45|28.41-29.85	14.87|0.34|14.37-15.44	12.98|0.24|12.64-13.42	12.48|0.25|12.10-13.00	8.73|0.18|8.40-9.09	7.19|0.17|6.89-7.48
L. sabuni	19	57.15|1.30|54.68-59.89	29.18|0.71|27.75-30.81	14.83|0.48|14.12-16.11	12.96|0.25|12.43-13.38	12.20|0.54|11.09-13.30	8.33|0.29|7.90-9.08	7.35|0.16|7.08-7.66

Clade	BM1	LIF	IOB	LAB	ALM	BR	LBP	BZP
L. dudui	6.67|0.27|6.15-7.21	6.27|0.32|5.58-7.04	5.88|0.26|5.36-6.31	5.20|0.25|4.85-5.78	4.72|0.22|4.27-5.17	4.73|0.19|4.36-5.09	3.76|0.20|3.32-4.08	2.81|0.12|2.52-3.01
L. stanleyi	6.77|0.27|6.09-7.80	6.30|0.36|5.39-7.58	6.15|0.25|5.48-6.92	5.36|0.20|4.90-5.93	4.81|0.24|4.09-5.77	4.84|0.26|4.26-5.74	4.03|0.28|3.33-4.77	3.04|0.22|2.59-3.67
L. laticeps	6.85|0.31|6.25-7.71	6.37|0.25|5.87-6.91	6.23|0.19|5.82-6.54	5.38|0.20|4.96-5.73	5.00|0.19|4.73-5.44	4.87|0.19|4.47-5.36	4.04|0.26|3.51-4.64	2.95|0.19|2.64-3.45
L. makundii	6.56|0.21|6.17-6.95	6.20|0.26|5.49-6.67	5.96|0.17|5.68-6.36	5.47|0.19|5.10-5.83	4.87|0.16|4.49-5.16	4.81|0.20|4.45-5.23	4.27|0.27|3.84-4.89	3.08|0.14|2.72-3.36
L. zena	6.76|0.28|6.06-7.43	6.43|0.36|5.57-7.22	6.02|0.26|5.36-6.81	5.41|0.24|4.87-6.00	4.94|0.23|4.45-5.52	4.85|0.27|4.26-5.50	4.20|0.30|3.48-5.09	3.07|0.25|2.43-3.77
L. verhageni	6.64|0.58|5.09-7.22	6.01|0.29|5.51-6.51	6.09|0.18|5.80-6.41	5.48|0.24|5.18-5.92	5.03|0.10|4.79-5.25	4.86|0.17|4.58-5.25	4.73|0.29|4.31-5.22	2.83|0.13|2.65-3.13
L. cf. *cinereus*	6.89|0.26|6.30-7.47	6.45|0.35|5.80-7.42	6.31|0.25|5.63-7.09	5.47|0.21|5.05-5.86	4.87|0.21|4.53-5.40	5.01|0.23|4.56-5.53	4.02|0.28|3.41-4.54	2.91|0.19|2.46-3.46
L. kilonzoi	6.94|0.23|6.52-7.45	6.42|0.31|5.63-7.01	6.34|0.23|5.81-6.98	5.36|0.20|4.94-5.78	4.96|0.20|4.39-5.35	5.01|0.21|4.58-5.52	4.17|0.28|3.58-5.05	3.10|0.19|2.73-3.53
L. machangui	7.09|0.26|6.59-7.71	6.64|0.34|5.78-7.37	6.21|0.22|5.71-6.95	5.28|0.17|4.90-5.74	5.09|0.17|4.58-5.53	5.05|0.24|4.42-5.79	4.19|0.33|3.37-5.09	3.12|0.18|2.68-3.58
L. aquilus	6.72|0.09|6.58-6.88	6.74|0.28|6.30-7.24	6.05|0.12|5.80-6.26	5.48|0.12|5.27-5.66	4.72|0.14|4.45-4.94	5.06|0.18|4.77-5.38	4.15|0.21|3.76-4.39	2.80|0.10|2.64-2.97
L. sabuni	7.04|0.23|6.63-7.50	6.73|0.25|6.31-7.31	6.09|0.16|5.78-6.48	5.35|0.18|5.02-5.78	5.20|0.21|4.79-5.57	4.88|0.19|4.48-5.26	4.38|0.26|3.85-4.79	3.21|0.15|3.00-3.65

Reference:

Onditi KO, Kerbis Peterhans JC, Demos TC, Musila S, Zhongzheng C, Xuelong J. Morphological and genetic characterization of Mount Kenya brush-furred rats (*Lophuromys* Peters 1874); relevance to taxonomy and ecology. Mammal Research 2019, 65(2):387-400; https://doi.org/10.1007/s13364-019-00470-1.

Table S4 Summary of multivariate pairwise differences between the non-Ethiopian *L. flavopunctatus* members based on linear craniodental measurements inferred using Pairwise multilevel permutational multivariate analysis of variance comparison. The first out-of-Ethiopia subgroup are highlighted in bold fonts. The geometric dataset yielded virtually congruous results and are not shown.

Clade pairs	*F* statistics	R^2	*p*-value	adjusted *p*-value
L. cf. cinereus - L. dudui	47.94	0.3526	0.001	0.055
L. cf. cinereus - L. laticeps	13.27	0.1350	0.001	0.055
L. cf. cinereus - L. machangui	10.53	0.0681	0.001	0.055
L. cf. cinereus - L. makundii	21.28	0.1930	0.001	0.055
L. cf. cinereus - L. sabuni	10.88	0.1184	0.001	0.055
L. cf. cinereus - L. stanleyi	28.43	0.0953	0.001	0.055
L. cf. cinereus - L. zena	18.46	0.0787	0.001	0.055
L. dudui - L. laticeps	14.31	0.2126	0.001	0.055
L. dudui - L. machangui	59.17	0.3457	0.001	0.055
L. dudui - L. makundii	14.85	0.2067	0.001	0.055
L. dudui - L. sabuni	39.79	0.4481	0.001	0.055
L. dudui - L. stanleyi	15.02	0.0594	0.001	0.055
L. dudui - L. zena	16.54	0.0825	0.001	0.055
L. laticeps - L. machangui	18.78	0.1469	0.001	0.055
L. laticeps - L. makundii	10.05	0.1569	0.001	0.055
L. laticeps - L. sabuni	21.63	0.3199	0.001	0.055
L. laticeps - L. stanleyi	1.87	0.0079	0.13	1.000
L. laticeps - L. zena	3.34	0.0181	0.036	1.000
L. machangui - L. makundii	25.31	0.1830	0.001	0.055
L. machangui - L. sabuni	2.24	0.0209	0.095	1.000
L. machangui - L. stanleyi	53.77	0.1546	0.001	0.055
L. machangui - L. zena	27.25	0.1020	0.001	0.055
L. makundii - L. sabuni	18.77	0.2730	0.001	0.055
L. makundii - L. stanleyi	5.42	0.0222	0.005	0.275
L. makundii - L. zena	2.24	0.0120	0.11	1.000
L. sabuni - L. stanleyi	19.07	0.0763	0.001	0.055
L. sabuni - L. zena	8.58	0.0462	0.001	0.055
L. stanleyi - L. zena	7.45	0.0199	0.001	0.055
L. aquilus - L. verhageni	**9.21**	**0.2475**	**0.002**	**0.110**
L. aquilus - L. kilonzoi	**6.00**	**0.0660**	**0.005**	**0.275**
L. kilonzoi - L. verhageni	**7.85**	**0.0810**	**0.001**	**0.055**