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Corrective paper concerning two new species of the genus *Lepilemur* Geoffroy, 1851 (Mammalia)

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Abstract

In 2007, we published the descriptions of two new species of the genus *Lepilemur* in an online journal. However, online publications before the 1st January 2012 are unavailable from a nomenclatural viewpoint. One of these two species had already been named *Lepilemur grewcockorum* shortly before the publication of our work by Louis *et al.* (2006) and does not need to be redescribed and renamed. Concerning the other one, we hereby officially correct the situation by publishing the species description again, but here in a *Code*-compliant way.

Key words

Otto's sportive lemur, Manasamody sportive lemur, Madagascar; Online publication; nomenclatural availability; correction.

Introduction

In 2007, we published (Craul *et al.* 2007) the descriptions, diagnoses and nomina (scientific names) of two new species of mammals of the genus *Lepilemur* Geoffroy, 1851 (Primates, Strepsirrhini, Lemuriformes, Lepilemuridae). Unfortunately, these new nomina are nomenclaturally unavailable because they were published only online before 1st January 2012, and all online publications before that date are unavailable according to Article 8.5.1 of the 2012 Amendment of the *Code* (Anonymous 2012). One of these two nomina, however, is invalid and unnecessary, being a synonym of another nomen published just before ours.

For the other nomen, we publish here a formal correction to our original work. The present paper, being published in a periodical printed on paper and distributed simultaneously to all subscribers, and accessible online after this paper distribution, is complying with the traditional Rules of the *International Code of Zoological Nomenclature*

(Anonymous 1999) for paper publications. We refer to the original work (Craul *et al.* 2007) for further details on phylogenetic and biological information, and for photos available for this new taxon. The following information is provided here just in order to comply with the requirements of the *Code* regarding nomenclatural availability.

Description of new species

Lepilemur otto sp. nov.

Onomatophore (nomen-bearer)

Holotype: individual 02y04bibo, adult male captured in Ambodimahabibo (Madagascar: Province de Mahajanga, Ambodimahabibo, 15°29'54,2"S, 47°28'47,2"E) on 1st August 2004 by M. Craul.

Tissue and hair samples, morphometric measurements as well as photographs of holotype 02y04bibo and three other individuals (paratypes) are stored at the Institute of Zoology of the University of Veterinary Medicine Hannover, Hannover, Germany.

Description

The dorsal pelage, including shoulders and the upper and lower arms, is predominantly grey-brown. A dark diffuse line runs from the middle of the upper skull down the spine, ending in the middle or at the lower part of the back, but is never present on the tail. The ventral pelage is generally grey to creamy. The coloration of the tail is grey-brown to deep brown, sometimes with a white tail tip. The face and forehead are essentially grey.

Diagnosis

The sequenced mtDNA of *Lepilemur otto* has eleven diagnostic sites, eight in the ND4 (see Appendix 1), and three in the D-loop (see Appendix 2). *L. otto* differs from its closest relative, *L. edwardsi*, in 13bp and from its sister taxon *L. grewcockorum* in 18bp of the sequenced mtDNA, respectively (Appendices 1–3).

The few available morphometric data indicate that *L. otto* has a longer snout than the neighbouring species south of the Mahajamba River, *L. edwardsi*. The tail is shorter compared to *L. grewcockorum* and to *L. edwardsi*.

Distribution

The known distribution range of *Lepilemur otto* is so far limited to the sample site of Ambodimahabibo. This site is situated in the Inter-River-System II, which is limited by the Mahajamba River in the west and the Sofia River in the north. Intensive surveys are required to obtain additional information.

Etymology of new nomen

The nomen *Lepilemur otto* was chosen to acknowledge the donation of Dr. Michael Otto for the purpose of research and conservation of Malagasy lemurs. The epithet *otto* is a noun in apposition, therefore grammatically invariable.

Lepilemur manasamody, an invalid junior subjective synonym

Shortly after the initial description of *Lepilemur manasamody* (Craul *et al.* 2007), we became aware by additional molecular analyses that the nomen of this species is a junior synonym of *Lepilemur grewcockorum* which was described on 1st September 2006 (Louis *et al.* 2006), shortly after we had submitted our original manuscript (24th August 2006, Craul *et al.* 2007). For the reason given above, our description did not provide nomenclatural availavility to our nomen. Since, according to Articles 11.5 and 11.6 of the *Code*, a nomen first published after 1960 is invalid for being a junior synonym of a nomen published before, the nomen *Lepilemur manasamody* remains nomenclaturally unavailable and cannot be made available now, so we refrain from publishing it again as new.

Acknowledgements

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References

Anonymous [International Commission on Zoological Nomenclature] (1999) *International code of zoological nomenclature*. Fourth edition. London (International Trust for Zoological Nomenclature): i–xxix + 1–306.

Anonymous [International Commission on Zoological Nomenclature] (2012) Amendment of Articles 8, 9, 10, 21 and 78 of the International Code of Zoological Nomenclature to expand and refine methods of publication. *Bulletin of zoological Nomenclature*, **69** (3): 161–169.

Craul, M., Zimmermann, E., Rasoloharijaona, S., Randrianambinina & Radespiel, U. (2007) Unexpected species diversity of Malagasy primates (*Lepilemur* spp.) in the same biogeographical zone: a morphological and molecular approach with the description of two new species. *BMC Evolutionary Biology*, 7 (83): 1–15 + 3 additional online files. <doi:10.1186/1471-2148-7-83>. **Online document** <http://www.biomedcentral.com/content/pdf/1471-2148-7-83.pdf>.

Louis, E. E. Jr., Engberg, S. E., Lei, R., Geng, H., Sommer, J. A., Randriamampionona, R., Randriamanana, J. C., Zaonarivelo, J. R., Andriantompohavana, R., Randria, G., Prosper, Ramaromilanto, B., Rakotoarisoa, G., Rooney, A. & Brenneman, R. A. (2006) Molecular and morphological analyses of the sportive lemurs (Family Megaladapidae: Genus *Lepilemur*) reveals 11 previously unrecognized species. *Special Publications Museum of Texas Tech University,* **49**: 1–47.

APPENDIX 1. Diagnostic sites of the ND4 region of *L. otto* compared to 8 species of *Lepilemur*.

	1	1	3	3	4	4	4	5	5	5	5	5	6	6	7	7	1	1	1	1	1	1	2	2	2	2
	1	1	3	3	4	4	4	5	5	5	5	5	6	6	7	7	1	2	3	3	6	7	0	0	1	1
	0	2	0	9	2	3	8	0	3	4	5	7	3	4	5	8	2	3	1	2	2	1	1	4	4	5
L. mustelinus	C	T	T	A	A	A	C	T	C	C	G	C	C	C	C	T	G	A	A	A	A	C	A	C	C	T
L. ankaranensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. dorsalis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. sahamalazensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	G	.	.	.	.	.	.	.
L. grewcockorum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	G	.	.	.
L. edwardsi	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. otto	**.**	**.**	**.**	**.**	**G**	**.**	**.**	**.**	**.**	**.**	**.**	**T**	**.**	**.**	**.**	**.**	**.**	**G**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**
L. ruficaudatus	.	.	G	G	.	G	.	.	.	A	.	.	.	.	.	.	A	.	.	.	T	.	.	.	.	.
L. aeeclis	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	C

	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4
	5	6	8	9	9	9	9	0	0	1	2	3	3	4	8	0	3	4	5	5	6	6	6	6	7	8
	5	7	8	1	2	6	7	6	7	2	7	3	4	6	1	1	4	6	3	9	1	4	8	9	7	8
L. mustelinus	C	A	A	A	A	T	G	G	G	C	A	C	A	C	A	T	-	C	T	T	C	C	C	A	A	C
L. ankaranensis	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. dorsalis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. sahamalazensis	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.
L. grewcockorum	.	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. edwardsi	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. otto	**A**	**.**	**.**	**.**	**.**	**.**	**.**	**C**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**
L. ruficaudatus	.	.	.	.	G	.	.	.	.	T	G	.	.	.	G	.	.	.	.	.	T	.	.	G	.	.
L. aeeclis	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	G	.

	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	
	9	9	9	9	1	1	1	4	5	5	7	7	8	8	9	0	0	1	1	2	3	3	3	
	2	3	5	7	0	3	9	9	8	9	1	4	6	7	0	5	6	0	8	7	0	1	2	Sum
L. mustelinus	C	T	C	C	A	C	C	G	A	T	G	T	A	C	T	C	C	A	C	C	T	C	T	
L. ankaranensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
L. dorsalis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0
L. sahamalazensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
L. grewcockorum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
L. edwardsi	.	.	.	.	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
L. otto	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**A**	**T**	**C**	**8**
L. ruficaudatus	.	.	.	T	.	T	.	.	.	.	.	C	.	.	C	.	.	.	.	.	.	.	.	16
L. aeeclis	T	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	T	.	T	.	.	.	.	10

APPENDIX 2. Diagnostic sites of the D-loop region of *L. otto* compared to 8 species of *Lepilemur*.

	20	22	23	24	75	77	78	80	122	123	151	155	156	157	165	166
L. mustelinus	A	G	C	C	C	A	T	A	C	T	C	A	A	A	A	A
L. ankaranensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. dorsalis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. sahamalazensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	C	.
L. grewcockorum	.	.	.	.	G	.	.	.	.	.	.	.	G	.	.	.
L. edwardsi	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. otto	**C**	**A**	**T**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**
L. ruficaudatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. aeeclis	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.

	181	191	195	208	222	260	272	273	279	281	283	291	358	360	Sum
L. mustelinus	A	T	T	C	A	T	T	C	A	T	T	T	C	C	
L. ankaranensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0
L. dorsalis	.	.	.	.	.	.	.	.	.	.	C	.	.	.	1
L. sahamalazensis	.	.	.	.	.	.	.	.	.	G	.	.	.	.	2
L. grewcockorum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2
L. edwardsi	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0
L. otto	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**3**
L. ruficaudatus	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0
L. aeeclis	G	.	.	.	T	.	.	.	.	.	.	.	.	.	3

APPENDIX 3. Diagnostic sites of the Cytochrome B region of *L. otto* compared to 8 species of *Lepilemur*.

	3	19	23	24	35	38	39	45	56	68	71	74	86	93	109	137	140	146	155	167	173	179	185	200
L. mustelinus	A	A	A	C	C	T	A	C	C	C	T	T	A	C	C	T	A	T	C	C	C	T	A	C
L. ankaranensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. dorsalis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. sahamalazensis	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	.	T	T	.	G	.
L. grewcockorum	.	.	.	.	.	.	.	.	.	.	.	.	G	.	.	.	G	.	.	.	.	.	.	.
L. edwardsi	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. otto	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
L. ruficaudatus	G	G	G	T	.	.	.	.	.	T	.	.	.	.	.	.	.	.	A	.	.	.	.	T
L. aeeclis	.	.	.	.	.	.	G	T	.	.	.	.	.	.	.	.	.	C	.	.	.	.	.	.

	204	205	218	224	237	242	248	254	290	295	300	308	314	315	320	325	326	330	333	339	340	341	Sum
L. mustelinus	G	T	C	C	A	C	A	A	T	C	C	C	T	C	C	T	C	T	C	A	C	A	
L. ankaranensis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	G	.	.	.	.	.	.	.	1
L. dorsalis	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0
L. sahamalazensis	.	.	.	.	.	.	C	.	.	.	T	.	.	.	.	C	.	.	.	.	.	.	7
L. grewcockorum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2
L. edwardsi	.	.	.	.	G	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
L. otto	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	**0**
L. ruficaudatus	.	.	T	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
L. aeeclis	.	.	.	.	C	T	.	G	.	T	.	T	.	.	.	.	A	.	.	.	.	G	10

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