

**Table 5: cytogenetic and molecular genetic differences**

<sup>1, 2, ...</sup>: source, author quoted.

	(Sub-)species, form, subpopulation	Chromosome number	Constrictions	X-, Y-chromosome	Banding patterns	Genetic distance (average number of nucleotide substitutions per site)	Other
<b>Asian lorises</b>							
	<b>Reconstructed ancestral karyotype for lorises and pottos</b>	2 n = 62 <sup>166</sup> .		X-chromosome metacentric <sup>166</sup> .			12 autosomes metacentric, other chromosomes with the exception of the X chromosome acrocentric (karyotype appearing to be very similar to that of <i>Galago crassicaudatus monteiri</i> , differing only by a pericentric inversion of reconstructed ancestral lorisiform chromosome 6. This karyotype resembles that reconstructed by <sup>181</sup> using Giemsa staining technique <sup>166</sup> .
L I	<b>Slender lorises</b> , genus <i>Loris</i> , general To avoid confusion, the old taxonomic names (above) are listed here in addition to the new names based on Groves 2001 because taxonomic research may lead to further changes.	2 n = 62 <sup>167</sup> quoting <sup>165</sup> , <sup>168</sup> and <sup>169</sup> . 62 <sup>36</sup> (own results and quoting other authors in addition).		X: S. Y: S-A <sup>167</sup> quoting <sup>165</sup> , <sup>168</sup> and <sup>169</sup> . <i>Loris tardigradus</i> , origin / subspecies unknown: X: SM; Y: small SM <sup>36</sup> , quoting <sup>168</sup> .			S-M: 34-38. A: 26-22 <sup>167</sup> , quoting <sup>165</sup> , <sup>168</sup> and <sup>169</sup> . Indian and Sri Lankan lorises appear to be chromosomally distinct (based on three wild-caught lorises from Sri Lanka, two of them large grey ones, one small reddish animal, all karyotypically distinct from each other <sup>36</sup> . <i>Loris tardigradus</i> , origin / subspecies unknown: large SM: 20; small SM: 14; A: 26 <sup>36</sup> , quoting <sup>168</sup> .
	<b>Slender lorises</b> , genus <i>Loris</i> , Origin India, subspecies undetermined			<i>Loris tardigradus</i> , origin India, subspecies unknown: X: SM; Y: small A <sup>36</sup> , quoting <sup>165</sup> .			<i>Loris tardigradus</i> , origin India, subspecies unknown: large SM: 22; small M: 16; A: 22 <sup>36</sup> , quoting <sup>165</sup> .
	<b>Slender lorises</b> , genus <i>Loris</i> , Origin Sri Lanka, subspecies undetermined						

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	(Sub-)species, form, subpopulation	Chromosome number	Constrictions	X-, Y-chromosome	Banding patterns	Genetic distance (average number of nucleotide substitutions per site)	Other
L II a	Old name: <i>L. t. tardigradus</i> <sup>1</sup> Groves 1998, 2001: change into distinct species <b><i>L. tardigradus</i></b> <sup>64, 65, 233</sup> ). Including several phenotypically distinct-looking forms: see for instance <sup>227</sup> , L II b, L II c and loris identification key in this database.			Loris C kept at Adelaide Zoo (female, golden-brown, ventrally golden-yellow to off-white, head-body-length 217 mm, hindfoot length 46.6 mm, weight 188-217 g): X: SM; Y: - <sup>36</sup> .			Loris C, adelaide Zoo: 9 pairs of SMs, 8 M pairs, 13 A pairs <sup>36</sup> .
L II b	Small form with the appearance of a shorter muzzle <sup>15</sup> .						
L II c	Small form with longer-looking muzzle / heart-shaped ( <i>L. t. grandis</i> -like) face <sup>15</sup> .						
L II d	( <i>L. gracilis zeylanicus</i> : synonym?) <sup>2, 14</sup> .						
L III	<b><i>Loris lydekkerianus</i></b> <sup>233</sup> Groves 1998, 2001: species including all formerly known <i>Loris</i> subspecies except from the former <i>L. t. tardigradus</i> <sup>64, 65, 233</sup> .						
L IV	Old name: <b><i>Loris tardigradus malabaricus</i></b> (Wroughton, 1917) <sup>1</sup> Groves 1998, 2001: <b><i>L. lydekkerianus malabaricus</i></b> <sup>64, 65, 233</sup> .						
L V	Old name: <b><i>Loris tardigradus lydekkerianus</i></b> (Cabrera, 1908) <sup>1</sup> . Groves 1998, 2001: <b><i>L. lydekkerianus lydekkerianus</i></b> <sup>64, 65, 233</sup> .						
	India, no information about subspecies			X: SM; Y: small A <sup>36</sup> quoting <sup>165</sup> .			22 large SM, 16 small M, 26 A <sup>36</sup> quoting <sup>165</sup> .

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	(Sub-)species, form, subpopulation	Chromosome number	Constrictions	X-, Y-chromosome	Banding patterns	Genetic distance (average number of nucleotide substitutions per site)	Other
L VI	<i>Loris tardigradus nordicus</i> (Osman Hill, 1933) <sup>1</sup> (proposition 1998: identical with / synonym of <i>L. lydekkerianus grandis</i> , <sup>64, 65</sup> . <i>L. lydekkerianus nordicus</i> if distinctness is found?).	62 (n = 1 male from Polonnaruwa) <sup>166</sup> .		X-chromosome submetacentric, Y-chromosome short, acrocentric <sup>166</sup> .			30 meta-, submetacentric; 30 acrocentric <sup>166</sup> ; reevaluated by <sup>36</sup> from figure 1 in the publication as possibly 1-15 = SM or M, 16-28 A; 29-30 M, = 34 SM or M and 26 A as in the grey Sri Lankan lorises from Adelaide Zoo.
	Old name: <i>Loris tardigradus nordicus</i> (Osman Hill, 1933) <sup>1</sup> . Groves 1998, 2001: museum specimens indistinguishable from / synonym of <i>L. lydekkerianus grandis</i> <sup>64, 65, 233</sup> . May turn out to be <i>L. lydekkerianus nordicus</i> in the future if further studies prove distinctness.	62 (n=2) <sup>36</sup> .		Loris A, Adelaide Zoo (male, ashy-grey, ventrally creamy-yellow, head-body-length 246 mm, hindfoot length 51.2 mm, weight 293-430 g): X: SM; Y: small A; Loris D, Adelaide Zoo (female, grey-brown, ventrally buff, head-body-length 215 mm, hindfoot length 43-44 mm, weight 175-197 g): X: SM; Y: small A <sup>36</sup> .			Loris A, Adelaide Zoo: 8 pairs of SM autosomes, 9 pairs of Ms and 13 pairs of As. Loris D, Adelaide Zoo: 9 pairs of SMs, 9 M pairs, 12 A pairs <sup>36</sup> .
L VII	Old name: <i>Loris tardigradus grandis</i> (Osman Hill and Phillips, 1932) <sup>1</sup> . Groves 1998, 2001: <i>L. lydekkerianus grandis</i> <sup>64, 65, 233</sup> .						Results by Goonan (1996): see above (identification as <i>L. t. grandis</i> correct?)
L VIII	Old name: <i>L. tardigradus nycticeboides</i> (Osman Hill, 1942) <sup>1</sup> . Groves 1998, 2001: <i>L. lydekkerianus nycticeboides</i> <sup>64, 65, 233</sup> .						

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	(Sub-)species, form, subpopulation	Chromosome number	Constrictions	X-, Y-chromosome	Banding patterns	Genetic distance (average number of nucleotide substitutions per site)	Other
Nx	<i>Nycticebus</i> E. Geoffroy 1812 <sup>233</sup> . Genus <i>Nycticebus</i> in general, lesser slow lorises included or species not mentioned					Mitochondrial DNA: mean genetic distance between <i>N. pygmaeus</i> and <i>N. coucang</i> : 0.053 (0.046 - 0.067); divergence between the two species may have 2.7 MA (million years) ago <sup>7</sup> .	
Np	<b>Lesser slow lorises</b>						
Np I	<i>Nycticebus pygmaeus</i> (Bonhote, 1907) <sup>3</sup> , <sup>1</sup> , <sup>2</sup> , see also <sup>38</sup> . ( <i>N. intermedius</i> and other possible <i>pygmaeus</i> -like forms included).	2n = 50 <sup>2</sup> . 2 n = 50 <sup>167</sup> quoting <sup>170</sup> .					
Np I b	<i>N. pygmaeus</i> (Bonhote, 1907) <sup>4</sup> , distinguished from <i>N. intermedius</i> .	50 from 1 male from Maguan of Yunnan, China <sup>8</sup> .	No secondary constriction <sup>8</sup> .	X-, Y-chromosome: subteleocentric <sup>8</sup> .	Ag-NORs on chromosome pairs 6, 9, 15, 20: at the tips of short arms. NORs heteromorphic in 95% of pair 20. Association of Ag-NORs observed in 9% <sup>8</sup> .	Mitochondrial DNA: mean genetic distance to <i>N. intermedius</i> : 0,009 (0.006 - 0.012); Mean genetic distance of both to <i>N. coucang</i> : 0.053 (0.046 - 0.067) <sup>7</sup> .	All chromosome pairs pairs in the complement are biarm. 11 pairs of metacentric chromosomes (nos. 2, 10, 14, 17-24, n=1 individual <sup>8</sup> .
Np II	Synonym / proposed species: <i>Nycticebus intermedius</i> (Dao, 1960) <sup>4</sup> .	50 from 2 individuals (1 female, 1 male) from Hekou of Yunnan, China <sup>8</sup> .	No secondary constriction <sup>8</sup> .	X-, Y-chromosome: subteleocentric <sup>8</sup> .	Ag-NORs on chromosome pairs 6, 9, 15, 20: at the tips of short arms. NORs heteromorphic in 95% of pair 20. Association of Ag-NORs observed in 9% <sup>8</sup> .	See above ( <i>N. pygmaeus</i> ); phylogenetic trees on the basis of genetic distance showed that <i>N. intermedius</i> should be included within <i>N. pygmaeus</i> <sup>7</sup> .	All chromosome pairs pairs in the complement are biarm. 11 pairs of metacentric chromosomes (nos. 2, 10, 14, 17-24, n=2 individuals <sup>8</sup> .
Np III	Proposed species: <i>Nycticebus sp.</i> New species proposed 1997, possibly corresponding to <i>N. intermedius</i> <sup>46, 47</sup> .						
Np IV	( <i>Nycticebus chinensis</i> ? New species proposed? Based on newspaper reports) <sup>96, 161</sup> .						
N	<b>Slow lorises</b> (lesser slow lorises not included)	2n = 50, 52 <sup>2</sup> . 2 n = 50-52 <sup>167</sup> quoting <sup>170, 171, 172, 173, 174</sup> and <sup>175</sup> . Some animals with 2 n = 52 <sup>(8, quoting<sup>182</sup> and<sup>183</sup>)</sup> ; see also column "other".	Giemsa stain: secondary constriction in the proximal third of the short arm of pair 2 <sup>32</sup> .	Various X chromosome morphologies were described: a large metacentric <sup>(8, quoting<sup>175</sup>)</sup> , a submetacentric <sup>(8, quoting<sup>172</sup> and<sup>173</sup>)</sup> , a long subteleocentric <sup>(8, quoting<sup>181</sup>)</sup> and a medium-sized acrocentric <sup>(8, quoting<sup>174</sup>)</sup> .	Study of a slow loris male kept at the Museum National d'Histoire Naturelle, Paris. (" <i>N. coucang</i> ") with several banding techniques: R (RHA), Q, T. C., Giemsa <sup>32</sup> . Q-, G- and C-banding patterns and Ag-NORs (Ag-stained nucleolar organizer regions) have been investigated and a standardized G-banded idiogram has been presented <sup>(8, quoting<sup>32, 184</sup> and<sup>185</sup>)</sup> .	See above ( <i>N. pygmaeus</i> )	S-M: 48 <sup>167</sup> quoting <sup>172, 177, 178, 179</sup> and <sup>180</sup> . All chromosome pairs pairs in the complement are biarm <sup>8</sup> . Some animals with 2 n = 52 and a complement in which a long biarm pair has been replaced by two long acrocentrics and two small biarm chromosomes <sup>(8, quoting<sup>182</sup> and<sup>183</sup>)</sup> .

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	(Sub-)species, form, subpopulation	Chromosome number	Constrictions	X-, Y-chromosome	Banding patterns	Genetic distance (average number of nucleotide substitutions per site)	Other
N I	<i>Nycticebus bengalensis</i> <sup>64, 65</sup> , Old name: <i>N. c. bengalensis</i> . <sup>233</sup> . Includes N I b to N I d <sup>2, 3</sup> ; Osman Hill distinguished <i>tenasserimensis</i> from this form <sup>1</sup> .	50 from 1 female from southern Yunnan, China <sup>8</sup> .	A secondary constriction in the short arms of pair 1, heteromorphic and often more visible in one of the members of the pair <sup>8</sup> .	X-chromosome: a long subtelocentric, length like pair 2, 3 <sup>8</sup> . X: S. Y: S <sup>167</sup> , quoting <sup>172, 177, 178, 179</sup> and <sup>180</sup> .	Ag-NORs on chromosome pairs 1, 6, 9, 15, 23: in the terminal region of short arms. NORs heteromorphic in pairs 15, 23, in fewer cells in pair 20. Association of Ag-NORs observed in 1% <sup>8</sup> .		12 pairs of metacentric chromosomes (nos. 1, 2, 10, 14, 17-24, n=1 animal <sup>8</sup> ).
N I b	Synonym (subpopulation): <i>N. c. cinereus</i> (A. Milne-Edwards, 1867) <sup>1</sup> .						
N I c	Synonym (subpopulation): <i>N. incanus</i> (Thomas 1921) <sup>1</sup> .						
N I d	Synonym (subpopulation): <i>N. c. tenasserimensis</i> (variable population with <i>couang</i> -like features in some specimens, possibly including <i>bengalensis-couang</i> transition forms (Elliott, 1912) <sup>265</sup> .						
N III	<i>N. c. couang</i> (Boddaert, 1785) <sup>2</sup> (includes Nc III b-e; compare with Nc III b).						
N III b	Synonym (subpopulation): <i>N. c. couang</i> (Boddaert, 1785) <sup>1</sup> .						
N III c	Synonym (subpopulation): <i>N. c. hilleri</i> (Stone et Rehn, 1902) <sup>1</sup> .						
N III d	Synonym (subpopulation): <i>N. c. insularis</i> (Robinson, 1917) <sup>1</sup> .						
N III e	Synonym (subpopulation): <i>N. c. natunae</i> (Stone et Rehn, 1902) <sup>1</sup> .						
N IV	<i>N. c. menagensis</i> (Lydekker, 1893) <sup>2</sup> ; (including N IV b-d).						
N IV b	Synonym (subpopulation): <i>N. c. borneanus</i> (Nachtrieb, 1892; Lyon, 1908) <sup>1</sup> .						

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N IV c	Synonym (subpopulation): <i>N. c. menagensis</i> (Lydekker, 1893) <sup>6</sup> (only from Tawitawi Archipelago; compare with N IV).						
N IV d	Synonym (subpopulation): <i>N. c. bancanus</i> (Lyon, 1906) <sup>1</sup> .						
N V	<b><i>Nycticebus coucang javanicus</i></b> (E. Geoffroy, 1812) <sup>1, 2, 3, 4, 233</sup> . May turn out to be a distinct species, <i>Nycticebus javanicus</i> , in the future <sup>64, 65, 233</sup> .						
<b>African forms</b>							
A I	Genus <b><i>Arctocebus</i></b> (formerly believed to consist of 1 species, <i>A. calabarensis</i> , compare with A II) <sup>33</sup> .	2 n = 52 <sup>28, 2</sup> . 2 n = 52 <sup>167</sup> quoting <sup>172</sup> and <sup>175</sup> .		X submetacentric, Y meta-centric <sup>28</sup> . X: S. <sup>167</sup> quoting <sup>172, 177, 178, 179</sup> and <sup>180</sup> .			28 metacentrics and submetacentrics, 22 acrocentrics and subacrocentrics <sup>28</sup> . S-M: 50. <sup>167</sup> quoting <sup>172, 177, 178, 179</sup> and <sup>180</sup> .
A II	<b><i>A. calabarensis</i></b> (J.A. Smith, 1863) <sup>33, 1, 2</sup> (formerly regarded as subspecies <i>A. c. calabarensis</i> ).						
A III	<b><i>A. aureus</i></b> De Winton, 1902 <sup>33, 1, 2</sup> .						
P I	<b>Genus <i>Perodicticus</i></b> Bennett, 1831; <b><i>Perodicticus potto</i></b> (P. L. S. Müller, 1776) (possibly including unrecognized species such as the proposed new genus <i>Pseudopotto</i> ? See below).	2 n = 62 <sup>32, 28</sup> . 2 n = 62 <sup>167</sup> quoting <sup>172, 177, 178, 179</sup> and <sup>180</sup> .		X submetacentric, Y acro-centric <sup>28</sup> . X: S. Y: A <sup>167</sup> quoting <sup>172, 177, 178, 179</sup> and <sup>180</sup> .	Study of a potto female kept at the Museum National d'Histoire Naturelle, Paris, with several banding techniques: R (RHA), Q, T., C., Giemsa <sup>32</sup> .		32 metacentrics and submetacentrics, 28 acrocentrics and subacrocentrics (many chromosomes in the second row possess variable short arms and are counted as acrocentric) <sup>32, 28</sup> . S-M: 24. A: 36 <sup>167</sup> quoting <sup>172, 177, 178, 179</sup> and <sup>180</sup> .
P II	<b><i>P. p. potto</i></b> (P. L. S. Müller, 1766) <sup>2</sup> (includes P II b - P II c).						

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P II b	Synonym (subpopulation): <i>P. p. potto</i> (P. L. S. Müller, 1766) <sup>1</sup> (not including P II c).						
P II c	Synonym (subpopulation): <i>P. p. juju</i> (Thomas, 1910) <sup>1</sup> .						
P III	<b><i>P. p. edwardsi</i></b> (Bouvier, 1879) <sup>2</sup> (includes P III b - P III c). Possibly including other species.						
P III b	Synonym (subpopulation): <i>P. p. edwardsi</i> (Bouvier, 1879) <sup>1</sup> .						
P III c	Synonym (subpopulation): <i>P. p. faustus</i> (Thomas, 1910) <sup>1</sup> .						
P IV	<b><i>P. p. ibeanus</i></b> (Thomas, 1910) <sup>2</sup> .						
Ps	<b><i>Pseudopotto martini</i></b> : new genus proposed in 1996 <sup>34</sup> . Current data insufficient <sup>68</sup> .						