

Table S1. Taxonomic classification and the genomes used in this study.

Group/species	Common names	Family	Sources^a	Quality (Version)	Reference^b
Primates [Haplorhini]					
Simiiformes (Catarrhini)					
<i>Homo sapiens</i>	Human	Hominidae	NCBI	GRCh38	IHGSC (2004)
<i>Homo sapiens</i>	Human (Craig Venter)	Hominidae	NCBI	GCA_000002125.2	Levy et al. (2007)
<i>Homo sapiens</i>	Human (Han Chinese)	Hominidae	BGI	YH	Li et al. (2010)
<i>Pan troglodytes</i>	Chimpanzee	Hominidae	NCBI	Release 103 (2.1.4)	CSAC (2005)
<i>Pan paniscus</i>	Bonobo	Hominidae	NCBI	Release 102 (1.1)	Prüfer et al. (2012)
<i>Gorilla gorilla gorilla</i>	Gorilla	Hominidae	NCBI	gorGor4	Scally et al. (2012)
<i>Pongo pygmaeus abelii</i>	Sumatran Orangutan	Hominidae	NCBI	6X (ver2.0.2)	Locke et al. (2011)
<i>Nomascus leucogenys</i>	White-cheeked gibbon	Hylobatidae	Ens	Release 102 (Nleu_3.0)	Carbone et al. (2014)
<i>Macaca mulatta</i>	Rhesus macaque	Cercopithecidae	BC, Ens	Release 102 (Mmul_8.0.1)	Zimin et al. (2014)
<i>Papio hamadryas</i>	Hamadryas baboon	Cercopithecidae	BC	5.3X (Pham_1.0)	Unpublished
<i>Papio anubis</i>	Olive baboon	Cercopithecidae	BC	Panu_2.0	Unpublished
Simiiformes (Platyrrhini)					
<i>Callithrix jacchus</i>	Common marmoset	Cebidae	WU, Ens	6X (ver.3.2)	MGSAC (2014)
Tarsiiformes					
<i>Tarsius syrichta</i>	Philippine tarsier	Tarsiidae	NCBI	48X (ver2.0.1)	Schmitz et al. (2016)
Primates [Strepsirrhini]					
Lemuriformes					
<i>Microcebus murinus</i>	Gray mouse lemur	Cheirogaleidae	BI, Ens	1.93X	Lindblad-Toh et al. (2011)
Lorisiformes					
<i>Otolemur garnettii</i>	small-eared bushbaby	Galagidae	BI, Ens	1.5X	Lindblad-Toh et al. (2011)
Dermoptera					
<i>Galeopterus variegatus</i>	Malayan colugo	Cynocephalidae	WU, NCBI	55X (ver3.0.2)	Unpublished
Scandentia					
<i>Tupaia belangeri</i>	northern treeshrew	Tupaiaidae	BI, NCBI	2X (ASM18137v1)	Lindblad-Toh et al. (2011)

^aData source abbreviations. BC: Baylor College of Medicine Human Genome Sequencing Center (<http://www.hgsc.bcm.tmc.edu>), BGI: Beijing Genomics Institute (<http://yh.genomics.org.cn>), BI: Broad Institute at MIT (<http://www.broad.mit.edu>), JCVI: J. Craig Venter Institute (<http://www.jcvi.org>), Ens: Ensembl Genome Browser (<http://www.ensembl.org>), NCBI: National Center for Biotechnology Information (<http://www.ncbi.nlm.nih.gov>), and WU: the Genome Sequencing Center at Washington University School of Medicine (<http://genome.wustl.edu>).

^bIHGSC (International Human Genome Sequencing Consortium), CSAC (The Chimpanzee Sequencing and Analysis Consortium), and MGSAC (The Marmoset Genome Sequencing and Analysis Consortium)