**Table S2**

**Mitogenomes used for comparative characterization and phylogenetic analysis, name of species, family and accession numbers**

|  |  |  |  |
| --- | --- | --- | --- |
| **Species** | **Family** | **Accession no.** | **Reference** |
| *Paguma larvata* | Viverridae | NC\_029403.1 | Zhang et al., 2015 |
| *Viverricula indica* | Viverridae | NC\_025296.1 | Weng et al., 2014 |
| *Genetta servalina* | Viverridae | NC\_024568.1 | Hassanin, 2014 |
| *Arctictis binturong* | Viverridae | **#** | Salleh et al., 2017 |
| *Cynogale bennettii* | Viverridae | KY117544 | Salleh et al., 2017 |
| *Hyaena hyaena* | Hyaenidae | NC\_020669.1 | Bon et al., 2011 |
| *Crocuta crocuta* | Hyaenidae | NC\_020670.1 | Bon et al., 2011 |
| *Mungotictis decemlineata* | Eupleridae | NC\_027828.1 | Hassanin, 2014 |
| *Herpestes javanicus* | Herpestidae | AY873843.1 | Penny and McLenachan, 2005 |
| *Nandinia binotata* | Nandiniidae | NC\_024567.1 | Hassanin, 2014 |
| *Neofelis nebulosa* | Felidae | KU133958 | Tabasum et al., 2016 |
| *Panthera leo persica* | Felidae | KU234271 | Tabasum et al., 2016 |
| *Panthera leo leo* | Felidae | KF776494.1 | Wang, 2013 |
| *Leopardus colocolo* | Felidae | NC\_028314.1 | Li et al., 2016 |
| *Catopuma badia* | Felidae | NC\_028300.1 | Li et al., 2016 |
| *Lynx canadensis* | Felidae | NC\_028313.1 | Li et al., 2016 |
| *Pardofelis marmorata* | Felidae | NC\_028303.1 | Li et al., 2016 |
| *Caracal caracal* | Felidae | NC\_028306.1 | Li et al., 2016 |
| *Leptailurus serval* | Felidae | NC\_028316.1 | Li et al., 2016 |
| *Prionailurus viverrinus* | Felidae | NC\_028305.1 | Li et al., 2016 |
| *Felis catus* | Felidae | NC\_001700.1 | Lopez, 1995 |
| *Otocolobus manul* | Felidae | NC\_028323.1 | Li et al., 2014 |
| *Prionodon pardicolor* | Prionodontidae | NC\_024569.1 | Hassanin, 2014 |
| *Cuon alpinus* | Canidae | NC\_013445.1 | Chen and Zhang 2009 |

# The Accession No. given in this reference does not belogs to *Arctictis binturong*, therefore,the sequence was taken from the authors on request.

**List of References:**

Zhang D, Xu L, Bu H, Wang D, Xu C and Wang R: The complete mitochondrial genome of themasked palm civet (Pagumalarvata, Mammalia,Carnivora. *Mitochondrial DNA*, 2015; DOI: 10.3109/19401736.2015.1079895

Weng HM, Wang L, Chan FT, Sun PY, Li KY and Ju YT: The complete mitochondrial genome of the small Indian civet,Viverricula indica taivana – the first complete representation ofthe genus Viverricula. *Mitochondrial DNA*, 2014; DOI: 10.3109/19401736.2014.958712

Hassanin A and Veron G: The complete mitochondrial genome of the Spotted Linsang, Prionodonpardicolor, the first representative from the family Prionodontidae(Mammalia, Carnivora). *Mitochondrial DNA*, 2014; DOI: 10.3109/19401736.2014.926482.

Hassanin A: The complete mitochondrial genome of the African palm civet,Nandiniabinotata, the only representative of the familyNandiniidae (Mammalia, Carnivora). *Mitochondrial DNA*, 2014.

Hassanin A: The complete mitochondrial genome of the Servaline Genet, Genettaservalina, the first representative from the family Viverridae (Mammalia,Carnivora). *Mitochondrial DNA*, 2014; DOI: 10.3109/19401736.2014.926479.

Bon C, Berthonaud V, Maksud F, Labadie K, Poulain J, Artiguenave F, Wincker P, Aury JM and Elalouf JM: Coprolites as a source of information on thegenome and diet of the cave hyena. *Proc. R. Soc. B* ,2012; doi:10.1098/rspb.2012.0358.

Li G, Davis BW, Eizirik E, Murphy WJ: Phylogenomic evidence for ancient hybridization in the genomes of living cats (Felidae). *Genome Res*, 2016; doi: 10.1101/gr.186668.114.

Salleh FM, Ramos-Madrigal J, Peñaloza F, Liu S, Sinding MHS, Patel RP, Martins R, Fickel DLJ, Roos C, Shamsir MS and Azman MS: An expanded mammal mitogenome dataset from Southeast Asia. *GigaScience*, 2017; doi: 10.1093/gigascience/gix053.

Tabasum W, Sreenivas A, Rai N, Thangaraj K and Gaur A: Complete mitochondrial genome sequence of Asiatic lion (*Pantheraleopersica*). *Mitochondrial DNA Part B: Resources*, 2016; doi.org/10.1080/23802359.2016.1214541.

Tabasum W, Sreenivas A, Bheemavarapu KK, Tirupathi RG and Gaur A Complete mitochondrial genome sequence of the Indian clouded leopard (*Neofelisnebulosa*). *Mitochondrial DNA Part B: Resources*, 2016.

 **GenBank submission:**

Penny D, and McLenachan P, 2005;

Retrieved from https://www.ncbi.nlm.nih.gov/nuccore/AY873843.1

Chen L, and Zhang HH, 2009; Retrieved from https://www.ncbi.nlm.nih.gov/nuccore/NC\_013445