

S3 File. Database references - Predictor variables

| Lineage              | Species                         | Common name           | Prey size                                                                                                                         | Average weight (kg)                                                                                                               | Patterning                                                                                                                                                                                                | Environment                            | Activity time                   |
|----------------------|---------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------------------------|
| Domestic Cat lineage | <i>Felis_catus</i>              | domestic_cat          | GISD (2021)                                                                                                                       | Mattern & McLennan (2000)                                                                                                         | Eizirik et al. (2010)                                                                                                                                                                                     | GISD (2021)                            | GISD (2021)                     |
|                      | <i>Felis_silvestris</i>         | European_wild_cat     | Sunquist & Sunquist (2009)                                                                                                        | Sunquist & Sunquist (2009)                                                                                                        | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
|                      | <i>Felis_lybica</i>             | African_wild_cat      | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | <a href="https://www.wildcatfamily.com/felis-lineage/african-wildcat-and-asiatic-wildcat-felis-lybica/">https://www.wildcatfamily.com/felis-lineage/african-wildcat-and-asiatic-wildcat-felis-lybica/</a> | Nowell & Jackson (1996)                | Nowell & Jackson (1996)         |
|                      | <i>Felis_bieti</i>              | Chinese_desert_cat    | Sunquist & Sunquist (2009)                                                                                                        | Sunquist & Sunquist (2009)                                                                                                        | <a href="https://www.wildcatfamily.com/felis-lineage/chinese-mountain-cat-felis-bieti/">https://www.wildcatfamily.com/felis-lineage/chinese-mountain-cat-felis-bieti/</a>                                 | Galván (2019); Sanderson et al. (2010) | Sanderson et al. (2010)         |
|                      | <i>Felis_margarita</i>          | desert_cat            | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
|                      | <i>Felis_nigripes</i>           | black_footed_cat      | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
|                      | <i>Felis_chaus</i>              | jungle_cat            | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
| Leopard Cat lineage  | <i>Prionailurus_bengalensis</i> | leopard_cat           | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
|                      | <i>Prionailurus_viverrinus</i>  | fishing_cat           | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
|                      | <i>Prionailurus_planiceps</i>   | flat_headed_cat       | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Cheyne & Macdonald (2011)       |
|                      | <i>Prionailurus_rubiginosus</i> | rusty_spotted_cat     | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Bora et al. (2020)              |
|                      | <i>Otocolobus_manul</i>         | Pallas_cat            | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Li et al. (2013)                |
| Puma lineage         | <i>Puma_yagouaroundi</i>        | Jaguarundi            | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
|                      | <i>Puma_concolor</i>            | Puma                  | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
|                      | <i>Acinonyx_jubatus</i>         | Cheetah               | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Hayward & Slotow (2009)         |
| Bay Cat lineage      | <i>Pardofelis_temminckii</i>    | Asian_golden_cat      | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Azlan & Sharma (2006)           |
|                      | <i>Pardofelis_badia</i>         | Bay_cat               | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
|                      | <i>Pardofelis_marmorata</i>     | marbled_cat           | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Lynam et al (2013)              |
| Lynx lineage         | <i>Lynx_lynx</i>                | Eurasian_lynx         | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Podolski et al. (2013)          |
|                      | <i>Lynx_pardinus</i>            | Iberian_lynx          | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
|                      | <i>Lynx_canadensis</i>          | Canadian_lynx         | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
|                      | <i>Lynx_rufus</i>               | Bobcat                | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Elizalde-Arellano et al. (2012) |
| Ocelot lineage       | <i>Leopardus_pardalis</i>       | Ocelot                | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
|                      | <i>Leopardus_wiedii</i>         | Margay                | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
|                      | <i>Leopardus_jacobita</i>       | Andean_mountain_cat   | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Lucherini et al. (2009)         |
|                      | <i>Leopardus_guigna</i>         | Kodkod                | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
|                      | <i>Leopardus_geoffroyi</i>      | Geoffroy's_cat        | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Cuellar et al. (2006)           |
|                      | <i>Leopardus_guttulus</i>       | Tigrina               | <a href="https://procarnivoros.org.br/animais/gato-do-mato-do-sul/">https://procarnivoros.org.br/animais/gato-do-mato-do-sul/</a> | <a href="https://procarnivoros.org.br/animais/gato-do-mato-do-sul/">https://procarnivoros.org.br/animais/gato-do-mato-do-sul/</a> | <a href="https://www.wildcatfamily.com/leopardus-lineage/southern-tiger-cat-leopardus-guttulus/">https://www.wildcatfamily.com/leopardus-lineage/southern-tiger-cat-leopardus-guttulus/</a>               | Allen et al. (2011)                    | Oliveira-Santos et al. (2012)   |
|                      | <i>Leopardus_tigrinus</i>       | Oncilla               | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019); Payan & Oliveira (2016) | Marinho et al. (2018)           |
|                      | <i>Leopardus_colocolo</i>       | Pampas_cat            | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Lucherini et al. (2009)         |
| Caracal lineage      | <i>Profelis_aurata</i>          | African_golden_cat    | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Cat News (2011)                 |
|                      | <i>Profelis_caracal</i>         | Caracal               | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Avenant & Nel (1998)            |
|                      | <i>Profelis_serval</i>          | Serval                | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Ramesh & Downs (2013)           |
| Panthera lineage     | <i>Panthera_leo</i>             | Lion                  | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Hayward & Slotow (2009)         |
|                      | <i>Panthera_pardus</i>          | Leopardo              | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Hayward & Slotow (2009)         |
|                      | <i>Panthera_onca</i>            | Jaguar                | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
|                      | <i>Panthera_uncia</i>           | snow_leopard          | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Allen et al. (2011)             |
|                      | <i>Panthera_tigris</i>          | Tiger                 | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Azlan & Sharma (2006)           |
|                      | <i>Neofelis_diardi</i>          | Sunda_clouded_leopard | Sunquist & Sunquist (2009)                                                                                                        | Sunquist & Sunquist (2009)                                                                                                        | <a href="https://www.wildcatfamily.com/panthera-lineage/sunda-clouded-leopard-neofelis-diardi/">https://www.wildcatfamily.com/panthera-lineage/sunda-clouded-leopard-neofelis-diardi/</a>                 | Galván (2019); Hearn et al. (2015)     | Hearn et al. (2015)             |
|                      | <i>Neofelis_nebulosa</i>        | clouded_leopard       | Meachen-Samuels & Van ValkenBurgh (2009)                                                                                          | Sunquist & Sunquist (2002); Nowak (2005)                                                                                          | Allen et al. (2011)                                                                                                                                                                                       | Galván (2019)                          | Grassman et al. (2005)          |

## REFERENCES

- Allen WL, Cuthill IC, Scott-Samuel NE, Baddeley R (2011) Why the leopard got its spots: relating pattern development to ecology in felids. *Proceedings of the Royal Society B: Biological Science* 278:1373-1380. <https://doi.org/10.1098/rspb.2010.1734>
- Avenant NL, Nel JA (1998) Home-range use, activity, and density of caracal in relation to prey density. *African Journal of Ecology* 36(4):347-359. <https://doi.org/10.1046/j.1365-2028.1998.00152.x>
- Azlan JM, Sharma DS (2006) The diversity and activity patterns of wild felids in a secondary forest in Peninsular Malaysia. *Oryx* 40(01):36-41. <https://doi.org/10.1017/S0030605306000147>
- Bora, J. K., Awasthi, N., Kumar, U., et al (2020) Assessing the habitat use, suitability and activity pattern of the Rusty-spotted Cat *Prionailurus rubiginosus* in Kanha Tiger Reserve, India. *Mammalia* 84(5):459-468. <https://doi.org/10.1515/mammalia-2019-0032>
- Cat News (2011). African Golden Cat, *Pardofelis aurata* (Temminck, 1827). Cat News. 2011: n. 6, Special Issue. IUCN.CSG
- Cheyne SM, Macdonald DW (2011) Wild felid diversity and activity patterns in Sabangau peat-swamp forest, Indonesian Borneo. *Oryx* 45(1):119-124. <https://doi.org/10.1017/S003060531000133X>
- Cuellar E, Maffei L, Arispe R, Noss A (2006) Geoffroy's cats at the northern limit of their range: activity patterns and density estimates from camera trapping in Bolivian dry forests. *Studies on Neotropical Fauna and Environment* 41(3):169-177. <https://doi.org/10.1080/01650520600840001>
- Eizirik E, David VA, Buckley-Beason V, Roelke ME, Schäffer A.A, Hannah SS, Narfström k, O'Brien SJ, Menotti-Raymond M (2010) Defining and Mapping Mammalian Coat Pattern Genes: Multiple Genomic Regions Implicated in Domestic Cat Stripes and Spots. *Genetics* 184(1):267–275. <https://doi.org/10.1534/genetics.109.109629>
- Elizalde-Arellano C, López-Vidal JC, Hernández L, Laundré JW, Cervantes FA, Alonso-Spilsbury M (2012) Home range size and activity patterns of bobcats (*Lynx rufus*) in the southern part of their range in the Chihuahuan Desert, Mexico. *The American Midland Naturalist* 168(2):247-264. <https://doi.org/10.1674/0003-0031-168.2.247>
- Galván I (2019) Correlated Evolution of White Spots on Ears and Closed Habitat Preferences in Felids. *Journal of Mammalian Evolution*, 27:519-523. <https://doi.org/10.1007/s10914-019-09464-x1>
- GISD (2021)(Global Invasive Species Database). Species profile: *Felis catus*. 2021. Downloaded from <http://www.iucngisd.org/gisd/species.php?sc=24> on 24-02-2021.
- Grassman LI, Tewes ME, Silvy NJ, Kreetiyutanont K (2005) Ecology of three sympatric felids in a mixed evergreen forest in north-central Thailand. *Journal of Mammalogy* 86(1):29-38. [https://doi.org/10.1644/1545-1542\(2005\)086%3C0029:EOTSFI%3E2.0.CO;2](https://doi.org/10.1644/1545-1542(2005)086%3C0029:EOTSFI%3E2.0.CO;2)
- Hayward MW, Slotow R (2009) Temporal partitioning of activity in large African carnivores: tests of multiple hypotheses. *South Africa Journal Wildlife Research* 39(2):109-125.
- Hearn A, Ross J, Brodie J, Cheyne S, Haidir IA, Loken B, et al. *Neofelis diardi*. The IUCN Red List of Threatened Species 2015: e.T136603A50664601. Available from: <http://dx.doi.org/10.2305/IUCN.UK.2015-4.RLTS.T136603A50664601.en>. Downloaded on 21 June 2016.
- Li J, Schaller GB, McCarthy TM, Wang D, et al ( ) A Communal Sign Post of Snow Leopards (*Panthera uncia*) and Other Species on the Tibetan Plateau, China. *International Journal of Biodiversity*, 370905. <http://dx.doi.org/10.1155/2013/370905>
- Lucherini M, Reppucci JI, Walker RS et al (2009) Activity pattern segregation of carnivores in the high Andes. *Journal of Mammalogy* 90(6):1404-1409. <https://doi.org/10.1644/09-MAMM-A-002R.1>
- Lynam AJ, Jenks KE, Tantipisanuh N et al (2013) Terrestrial activity patterns of wild cats from camera-trapping. *Raffles Bulletin of Zoology* 61(1):407-415.
- Marinho PH, Bezerra D, Antongiovanni M, Fonseca CR, Venticinque EM (2018) Activity patterns of the threatened northern tiger cat *Leopardus tigrinus* and its potential prey in a Brazilian dry tropical forest. *Mammalian Biology* 89:30-36. <https://doi.org/10.1016/j.mambio.2017.12.004>
- Mattern MY, McLennan DA (2000) Phylogeny and speciation of Felids. *Cladistics* 16(2):232–253. <https://doi.org/10.1006/clad.2000.0132>
- Meachen-Samuels, J. & Van Valkenburgh, B (2009) Craniodental indicators of prey size preference in the Felidae. *Biological Journal of Linnean Society* 96:784-799. <https://doi:10.1111/j.1095-8312.2008.01169.x>
- Nowak RM (2005) Walker's carnivores of the world, 7th edn. John Hopkins University Press, Baltimore
- Nowell K, Jackson P (1996) Wild cats: status survey and conservation action plan. World Conservation Union, Gland, Switzerland.
- Oliveira-Santos LGR, Graipel ME, Tortato MA, et al (2012) Abundance changes and activity flexibility of the oncilla, *Leopardus tigrinus* (Carnivora: Felidae), appear to reflect avoidance of conflict. *Zoologia* 29(2):115-120. <https://doi.org/10.1590/S1984-46702012000200003>
- Payan E, Oliveira T. *Leopardus tigrinus*. The IUCN Red List of Threatened Species 2016: e. T54012637A50653881.
- Podolski I, Belotti E, Bufka L, et al (2013) Seasonal and daily activity patterns of free-living Eurasian lynx *Lynx lynx* in relation to availability of kills. *Wildlife Biological* 19(1):69-77. <https://doi.org/10.2981/12-049>
- Ramesh T, Downs CT (2013) Impact of farmland use on population density and activity patterns of serval in South Africa. *Journal of Mammalogy* 94(6):1460-1470. <https://doi.org/10.1644/13-MAMM-A-063.1>
- Sanderson J, Yufeng Y, Naktsang D (2010) Of the only endemic cat species in China. *CAT News, Special Issue* 5:18-21.
- Sunquist M, Sunquist F (2002) Wild cats of the World. University of Chicago Press, Chicago
- Sunquist M, Sunquist, F (2009) Cats. In: Wilson DE and Mittermeier RA (eds) Handbook of the Mammals of the World. Vol. 1. Carnivores. Lynx Edicions, Barcelona