Supplemental Tables for

Climate change impacts on non-human primates: What have we modelled and what do we do now?

by

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Chapter 6

In

**PRIMATES IN ANTHROPOGENIC LANDSCAPES: EXPLORING PRIMATE
BEHAVIOURAL FLEXIBILITY ACROSS HUMAN CONTEXTS**

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Supplemental Table 1: modelling studies of hominids and hylobatids including taxonomic focus, modelling approaches, time-periods and broad theme.

Paper	Genera	Modelling approach	Past	Future	Theme
Etiendem et al. (2013)	*Gorilla*	Maxent			Anthropogenic impact
Thorn et al. (2013)	*Gorilla*	Ensemble modelling		✓	Modelling methods
Carvalho et al. (2021)	*Gorilla*, *Pan*	Ensemble modelling		✓	Climate change
Yuh et al. (2020)	*Gorilla*, *Pan*	Maxent			Anthropogenic impact
Deb et al. (2019)	*Hoolock*	Maxent		✓	Climate change
Trisurat (2018)	*Hylobates*	Maxent		✓	Climate change
Ario et al. (2018)	*Hylobates*	Principal components analysis			Conservation
Singh et al. (2018)	*Hylobates*	Maxent			Ecology / anthropogenic impact
Condro et al. (2021)	*Hylobates*, *Pongo*, *Symphalangus*	Maximum entropy in R		✓	Climate change
Tran & Vu (2020)	*Nomascus*	Maxent			Ecology
Bonnin et al. (2020)	*Pan*	Ensemble modelling			Anthropogenic impact
Mwambo (2010)*	*Pan*	Maxent		✓	Climate change
Barratt et al. (2020)*	*Pan*	Ensemble modelling	✓		Evolutionary biogeography
Rahman et al. (2019)	*Pongo*	Maxent			Anthropogenic impact
Wich et al. (2016)	*Pongo*	Generalised linear modelling		✓	Anthropogenic impact (forest loss scenarios)
Wich et al. (2012)	*Pongo*	Maxent			Ecology / anthropogenic impact

*papers labelled with an asterisk are yet to be peer-reviewed (theses, pre-prints or reports for conservation organisations).

Supplemental Table 2: modelling studies of cercopithecines including taxonomic focus, modelling approaches, time-periods and broad theme.

Paper	Genera	Modelling approach	Periods		Theme
			Past	Future	
Cronin et al. (2015, 2017)*	*Allochrocebus*, *Cercopithecus*, *Mandrillus*	Maxent			Anthropogenic impact
Korstjens et al. (2018)	*Allochrocebus*, *Cercopithecus*	Time-budgets			Group size
Baker and Willis (2015)*	*Cercocebus*, *Mandrillus*	Ensemble modelling		✓	Climate change
Korstjens (2019)	*Cercopithecus*	Generalised linear models		✓	Climate change
Willems and Hill (2009)	*Cercopithecus* (includes what we would now call *Chlorocebus*)	Maxent and time-budgets			Modelling methods
Ayebare et al. (2013)	*Cercopithecus*, *Lophocebus*	Maxent		✓	Conservation
Khanal et al. (2018a)	*Macaca*	Maxent	✓		Evolutionary biogeography
Moyes et al. (2016)	*Macaca*	Boosted regression tree modelling			Disease ecology
Condro et al. (2021)	*Macaca*	Maximum entropy in R		✓	Climate change / conservation
Greenspan et al. (2020)	*Macaca*	Maxent			Conservation
Fuchs et al. (2018)	*Papio*	Maxent			Ecology
Hill and Winder (2019)	*Papio*	Maxent		✓	Climate change
Chala et al. (2019)	*Papio*	Ensemble modelling	✓		Evolutionary biogeography
Green (2012)*	*Rungwecebus*	Extent of suitable habitat (ESH) modelling			Conservation
Dunbar (1998)	*Theropithecus*	Time-budgets		✓	Group size

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Supplemental Table 3: modelling studies of colobines including taxonomic focus, modelling approaches, time-periods and broad theme.

Paper	Genera	Modelling approach	Periods		Theme
			Past	Future	
McDonald et al. (2019)	*Colobus*	Maxent			Ecology
Korstjens (2019)	*Colobus*	Generalised linear models		✓	Climate change
Cronin et al. (2015, 2017)*	*Colobus*, *Piliocolobus*	Maxent			Anthropogenic impacts
Cavada et al. (2017)	*Colobus*, *Piliocolobus*	Generalised linear models			Ecology
Baker and Willis (2015)*	*Piliocolobus*	Ensemble modelling		✓	Climate change
Condro et al. (2021)	*Presbytis*, *Nasalis*, *Simias*, *Trachypithecus*	Maximum entropy in R		✓	Climate change / conservation
Ehlers-Smith (2014)	*Presbytis*	Species distribution modelling in ArcGIS	✓		Ecology / anthropogenic impact
Singh et al. (2018)	*Presbytis*	Maxent			Ecology / anthropogenic impact
Vu et al. (2020)	*Pygathrix*	Maxent		✓	Climate change
Tran et al. (2020)	*Pygathrix*	Maxent		✓	Climate change
Tran et al. (2018)	*Pygathrix*	Maxent			Conservation
Anh et al. (2019)	*Pygathrix*	Maxent			Conservation
Atmoko et al. (2020)	*Nasalis*	Maxent			Conservation
Zhao et al. (2019)	*Rhinopithecus*	Maxent and genetic/ circuit modelling		✓	Climate change
Luo et al. (2015)	*Rhinopithecus*	Maxent		✓	Climate change
Zhang et al. (2019b)	*Rhinopithecus*	Maxent		✓	Climate change
Ren et al. (2017)	*Rhinopithecus*	Maximum entropy in R	✓		Conservation
Khanal et al. (2018b)	*Semnopithecus*	Maxent			Conservation
Khanal et al. (2018c)	*Semnopithecus*	Maxent	✓		Evolutionary biogeography
Bagaria et al. (2020)	*Semnopithecus*	Ensemble modelling		✓	Climate change
Moody (2007)*	*Trachypithecus*	Maxent	✓		Evolutionary biogeography
Windyoningrum (2013)*	*Trachypithecus*	Maxent	✓		Conservation

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Supplemental Table 4: modelling studies of platyrrhines including taxonomic focus, modelling approaches, time-periods and broad theme.

Paper	Genera	Modelling approach	Periods		Theme
			Past	Future	
Holzmann et al. (2015)	*Alouatta*	Maxent			Ecology
Sales et al. (2017)	*Alouatta, Aotus, Ateles, Callicebus, Cebuella, Chiropotes, Saguinus, Saimiri*	Ensemble modelling		✓	Climate change / modelling methods
Vidal-Garcia and Serio-Silva (2011)	*Alouatta, Ateles*	Maxent			Ecology
Calixto-Pérez et al. (2018)	*Alouatta, Ateles*	Maxent			Modelling method
Clement et al. (2014)	*Alouatta, Ateles, Cebus, Pithecia, Saguinus, Saimiri*	Ensemble modelling			Ecology
Sales et al. (2019)	*Alouatta, Aotus, Ateles, Cacajao, Callibella, Callimico, Cebuella, Cebus, Cheracebus, Chiropotes, Lagothrix, Mico, Pithecia, Plecturocebus, Saguinus, Saimiri, Sapajus*	Maxent		✓	Climate change
Hasui et al. (2017)	*Alouatta, Callicebus, Callithrix, Sapajus*	Maxent			Ecology
Moraes et al. (2020)	*Alouatta, Sapajus*	Maxent		✓	Conservation
Shanee (2016)	*Aotus, Lagothrix, Plecturocebus,*	Maxent		✓	Climate change
Helenbrook and Valdez (2020)*	*Aotus*	Maxent			Conservation
Shanee et al. (2015)	*Aotus*	Maxent			Ecology
Ortega Huerta (2007)	*Ateles*	GARP (genetic algorithms)			Conservation

Paper	Genera	Modelling approach	Periods		Theme
			Past	Future	
Sales et al. (2020)	*Ateles*, *Cebus*, *Cheracebus*, *Lagothrix*, *Pithecia*, *Plecturocebus*, *Saguinus*, *Saimiri*, *Sapajus*	Maxent		✓	Climate change
Boubli and De Lima (2009)	*Cacajao*, *Chiropotes*	Maxent			Ecology
Guy et al. (2016)	*Callithrix*, *Leontopithecus*	Maxent			Ecology
Moraes et al. (2019)	*Callithrix*	Ensemble modelling			Anthropogenic impact
Braz et al. (2019)	*Callithrix*	Ensemble modelling		✓	Climate change
Campos and Jack (2013)	*Cebus*	Maxent			Conservation
Linero et al. (2020)	*Lagothrix*	Ensemble modelling		✓	Climate change / conservatopn
Rezende et al. (2020)	*Leontopithecus*	Ensemble modelling			Conservation
Ochoa-Quintero et al. (2017)	*Mico*	Maxent			Ecology
Garbino et al. (2015)	*Saguinus*	Maxent			Ecology
Howard et al. (2015)	*Sapajus*	Maxent			Ecology
De Marco et al. (2020)	*Sapajus*	Ensemble modelling			Ecology / anthropogenic impact

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Supplemental Table 5: modelling studies of tarsiers including taxonomic focus, modelling approaches, time-periods and broad theme.

Paper	Genera	Modelling approach	Periods		Theme
			Past	Future	
Condro et al. (2021)	*Nycticebus*	Maximum entropy in R		✓	Climate change / conservation

Supplemental Table 6: modelling studies of lorises and galagos including taxonomic focus, modelling approaches, time-periods and broad theme.

Paper	Genera	Modelling approach	Past	Future	Theme
Erasmus et al. (2002)	*Galago*	Climate envelope modelling		✓	Climate change
Nekaris and Stengel (2013)	*Loris*	Maxent			Ecology
Voskamp et al. (2014)	*Nycticebus*	Maxent			Ecology
Kumara et al. (2021)	*Nycticebus*	Maxent			Ecology
Condro et al. (2021)	*Nycticebus*	Maximum entropy in R		✓	Climate change / conservation
Thorn et al. (2009)	*Nycticebus*	Maxent			Ecology

Supplemental Table 7: modelling studies of lemurs including taxonomic focus, modelling approaches, time-periods and broad theme.

Paper	Genera	Modelling approach	Periods		Theme
			Past	Future	
Peacock (2011)	*Avahi, Cheirogaleus, Daubentonia, Eulemur, Hapalemur, Indri, Lemur, Lepilemur, Microcebus, Mirza, Phaner, Propithecus, Varecia*	Maxent			Conservation
Herrera et al. (2018)	*Avahi, Cheirogaleus, Eulemur, Hapalemur, Indri, Lemur, Lepilemur, Microcebus, Propithecus, Varecia*	Maxent, with general and generalised linear models to predict densities			Ecology
Blair et al. (2013)	*Eulemur*	Maxent			Ecology
Kamilar and Tecot (2016)	*Eulemur*	Maxent			Ecology / anthropogenic impacts
Mercado Malabet et al. (2020)	*Eulemur*	Maxent			Anthropogenic impact
Ormsby (2019)	*Eulemur*	Ensemble modelling			Conservation
Stalenberg (2019)*	*Lepilemur*	Biophysical (mechanistic) models	✓		Climate change

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