Estimating Grauer's gorilla distribution and population size in eastern Democratic Republic of the Congo

Ghislain Vieilledent, Andrew J. Plumptre, Rob Critchlow, Stuart Nixon, Deo Kujirakwinja1, Elizabeth A. Williamson, Radar Nishuli, Andrew Kirkby and Jefferson S. Hall

Densities from e-rates by site

Sites	Area	Date	NestSiteErate	dens.fit	dens.lwr	dens.upr
Itombwe	5600	2013-2014	0.02	0.075	0.000	0.155
Balala	400	2013	0.00	0.064	0.000	0.147
Kahuzi-Biega Tshivanga	600	2014 - 2015	1.10	0.622	0.548	0.696
Kahuzi-Biega Itebero	2925	2014 - 2015	0.30	0.216	0.149	0.283
Kahuzi-Biega Nzovu	1921	2014	0.11	0.120	0.044	0.196
Kahuzi-Biega Kasese	716	2015	0.23	0.181	0.111	0.251
Fodi	200	2011-2015	0.34	0.237	0.171	0.302
Tayna	900	2013	0.25	0.191	0.122	0.260
Kisimba-Ikobo	971	2013	0.00	0.064	0.000	0.147
RGPU-North	2400	2014 - 2015	0.17	0.151	0.078	0.223
RGPU-East	2000	2014 - 2015	0.65	0.394	0.333	0.454
Maiko	975	2015	0.00	0.064	0.000	0.147
Lubutu	1056	2010	0.00	0.064	0.000	0.147
Usala	1152	2010-2013	1.37	0.758	0.669	0.848
Regomuki	1480	2013	0.22	0.176	0.106	0.246

Weighted mean gorilla density (ind.km-2)

	dens.ci
dens.fit	0.193
dens.lwr	0.123
dens.upr	0.268

Species distribution area (km2)

	SDA
mean	19700
lower	10400
upper	33775

Population estimates

	pop
mean	3810

	pop
lower	1274
upper	9065

Population decline in %

Accounting for 16902 gorillas in 1994 (Hall et al., 1998).

	decrease
mean	77
max	92
min	46

References

Hall, J.S., Saltonstall, K., Inogwabini, B.-l., Omari, I., 1998. Distribution, abundance and conservation status of grauer's gorilla. Oryx 32, 122-130.

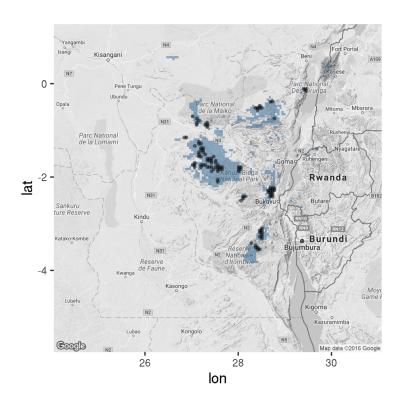


Figure 1: Grauer's gorilla distribution.