



*Gorilla gorilla* ◀

▶ **Gorillas**

*Contents*

Taxonomy .....	2
Distribution .....	2
Anatomy and Appearance .....	3
Size, Weight and Lifespan.....	3
Gestation .....	3
Ecology and Behavior .....	3
Habitat.....	3
Predators and Natural Enemies .....	3
Population Sizes .....	3
Population Trends .....	3
Threats to the Populations .....	4
Conservation .....	4
References and Further Reading .....	4
Further Sources on the Internet .....	5



Text compiled by Swen C. Renner. Photo: Mountain gorilla at Bwindi Impenetrable Forest, Uganda. Courtesy of Christian Lambrechts

## Taxonomy

Scientific name: *Gorilla gorilla*, *Gorilla beringei*

English Name: Western Lowland Gorilla, Eastern Lowland Gorilla, Mountain Gorilla

Nom Français: gorille de plaine orientale, gorille de plaine occidentale, gorille de montagne

Kiswahili: N'gagi or Gorila

Two species are currently recognized: *Gorilla gorilla* (Western Lowland Gorilla) and *Gorilla beringei* (Eastern Lowland Gorilla). The status is still uncertain and subject to discussion in the scientific community. The nominate form is separated into two subspecies: *G. g. diehli* (Cross River Gorilla in Cameroon), and *G. g. gorilla* (Western Lowland Gorilla). *G. beringei* has also two subspecies: *graueri* (Eastern Lowland Gorilla) and *G. b. beringei* (Mountain Gorilla). Also a fifth subspecies might be separated (Bwindi gorillas' population).

The Western Lowland Gorilla (*Gorilla gorilla*) is the most widespread group, ranging from southeast Nigeria and Cameroon, to the southwest corner of the Central African Republic, and further southward into west Congo (Brazzaville), Equatorial Guinea, Gabon, and northern parts of the Cabinda enclave of Angola. There is a gap of around 1,000 km between this population and the Eastern Lowland Gorilla (*G. beringei*), only known to occur in eastern Democratic Republic of Congo (DRC), although possibly present in the north. The Mountain Gorilla (*G. b. beringei*) occurs on the slopes of extinct volcanoes forming the Virunga range (the Virunga Nationalpark in DRC is a World Heritage site dedicated by UNESCO) along the borders of Rwanda, Uganda and DRC, and in the Bwindi-Impenetrable Forest National Park of southwest Uganda neighboring DRC.

## Distribution

The two gorilla species are living in tropical Africa, mainly in two range-patches in equatorial West Africa and eastern Central Africa. For further details see Figure 1.

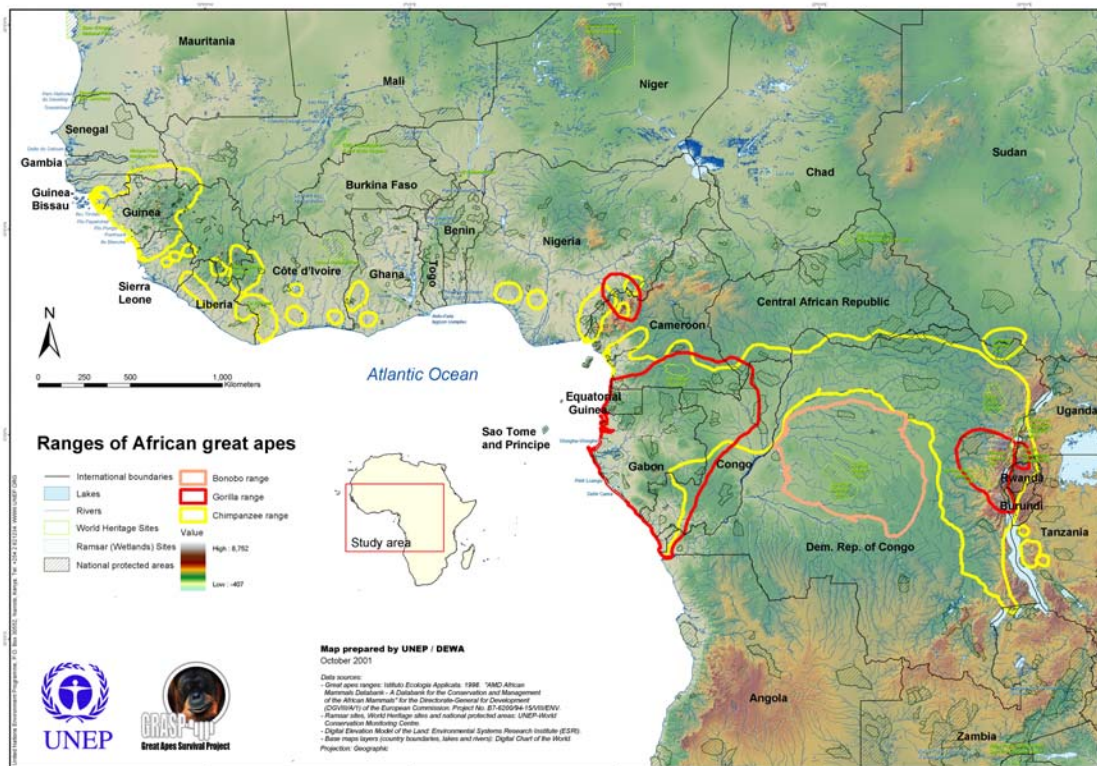


Figure 1: Distribution of gorilla species and subspecies worldwide. Source: UNEP.

## Anatomy and Appearance

Gorillas have very long arms that are longer than the legs, and a short, bulky body with a wide chest. Male gorillas are much larger than the females. Gorillas use mainly their quadrupedal locomotion, rarely only the hind legs. Generally they have a similar build to humans and the other great apes but appear more bulky and compact.

## Size, Weight and Lifespan

Males: 180 kg 170 cm

Females: 90 kg 140 cm

Lifespan: 53 years in captivity, 35 years in the wild.

## Gestation

8-9.5 months. Gorillas need a long time before they are able to reproduce (males 10, females 7 years), causing slow population growth and long times for recovery from severe population cuts (see Conservation). Weaning is after 4 years.

## Ecology and Behavior

A large herbivore primate who feeds sometimes on insects also, living in small family groups in tropical forests of central Africa with homeranges of up to 2,000 ha. Gorillas are social and diurnal animals living in small groups of 6-7 individuals, including one silverback (adult alpha-male), a few females, and their young. When the young males mature, they leave the group and join or form another band. Each evening, gorillas construct a “nest” for the night to sleep.

## Habitat

Dense forests, tropical rain forests and edges, wet lowland forests. Up to 3,800 m (*G. b. beringei*).

## Predators and Natural Enemies

Leopards and crocodiles for juvenile gorillas. Humans for all members.

## Population Sizes

There is no reliable estimate of the total population of wild gorillas. Over the past 20 years, surveys in forested areas of Gabon and Congo have established that Western Lowland Gorillas may occur at higher densities and in a wider range of forest habitats than was previously thought. The total population of this group may have then numbered at least 100,000 individuals. Recent reports of the numbers of gorillas killed in commercial bushmeat operations, however, indicate that this number has declined since the surveys and continues to do so wherever new roads open up the previously inaccessible forest (Ape Alliance 1998). However the following numbers are contemporarily given for the populations:

- Western Lowland Gorilla *G. g. gorilla*: 94,000 (Butynski 2000)
- Cross River Gorilla *G. g. diehli*: 200-250 (Butynski 2000)
- Mountain Gorilla *G. b. beringei*: The Virunga population is estimated at up to 370, the Bwindi population at just under 300 individuals (Redmond 2001).
- Eastern Lowland Gorilla *G. b. graueri*: 2,000-3,000 individuals remaining in small, scattered populations (Redmond 2001).

## Population Trends

It was thought during the 1980s around 1,500 gorillas occurred in the Nigeria-Cameroon (Cross River) region, but a recent estimate suggests only 150-200 remain, split into five populations, each isolated on a separate hill area. The lowland form of Eastern Gorilla had been estimated during the 1980s to comprise 3,000-5,000 individuals, all in DRC, but information on distribution was incomplete. In the mid-1990s surveys indicated a total population of 17,000 ( $\pm$  8,000), with 86% being found in the Kahuzi-Biega National Park and westwards to Kasese (Hall et al. 1996). New evidence suggests that the total may have been reduced to 2,000-3,000 that, if confirmed, would be an 80-90% loss in only five years (Redmond

2001). Estimates during the 1990s have suggested less than 350 Mountain Gorillas exist in the Virunga Volcanoes (up from 320 in the 1989 census), and less than 300 in the Bwindi area. Given a general lack of comprehensive numerical population data, estimates of extinction risk are to a great extent based on observed loss or modification of gorilla habitats, on rates of exploitation, and also, in the case of the geographically restricted forms, on the risks inherent in a small range size and diseases (Ebola).

### Threats to the Populations

Habitat loss, poaching, and commercial bushmeat, exposure to diseases.

### Conservation

The low population sizes and further steadily declining populations qualifies all gorilla species as critically endangered.

Habitat loss and degradation have been regarded as the major threats to gorilla populations, but much recent concern has been focused on the bushmeat trade, and the impact of civil conflict within the range of gorillas. Forest is being converted to crop production and livestock grazing in many parts of Africa. In West Africa, commercial logging and petroleum exploitation have been cited as increasingly significant threats to gorilla habitat. Where new streets and tracks are opened up for timber or mineral extraction, exploitation of forest animals for food use (bushmeat) rises in order both to support the incoming labor force and to export bushmeat to urban markets. War can have the same effect by forcing large numbers of refugees to abandon their farms and live in the forest, where hunting may be necessary for survival or an option to make money.

In eastern parts of DRC a recent increase in mining activity has badly impacted habitats and wildlife in key protected areas. Although bushmeat is culturally and nutritionally important in many regions, concern has been expressed recently about the intensity and extent of the bushmeat trade, and its adverse impacts on wild populations. The impact of bushmeat hunting is widespread and serious on many species because it is rapidly increasing in conjunction with increasing access into remote areas, and new markets are being developed to serve rising demand among urban populations.

Gorilla meat forms only a small proportion of the commercial bushmeat trade, but the impact on ape populations is disproportionately great because of their slow reproductive rate and the social consequences of silverbacks being killed (infanticide may ensue when nursing mothers join a new male).

Fortunately, international trade in live gorillas and gorilla products, formerly a significant threat to the species, has greatly declined since the gorilla was listed on Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1977. National laws for control of hunting and capturing exist in all countries with gorilla populations, but lack of funds and inaccessibility make wide enforcement of this legislation rare.

In the dry season when food is scarce gorillas in some areas raid crops, and may be hunted at this time. In places, gorilla products are used for traditional magical or medicinal purposes. Gorillas are also liable to be maimed or killed by traps and snares intended for other animals (bycatch), even in areas where gorilla meat is not eaten.

The Species Survival Commission of the World Conservation Union (IUCN) has adopted the new taxonomy, and have categorized both Western and Eastern Gorilla as **Endangered** overall, i.e. facing a very high risk of extinction in the wild in the near future. Three particular populations are categorized as **Critically Endangered**, i.e. facing an extremely high risk of extinction in the wild in the immediate future; these are the Cross River form in the far west, and both the Mountain and Bwindi forms in the far east. If the reports of a population crash in Eastern Lowland Gorilla are verified, this sub-species will be categorized as **Critically Endangered** also.

### References and Further Reading

- Abildgaard S (1990) Poaching and Mountain Gorillas: a veterinarians perspective. Gorilla Conservation News 4: 21.
- Ape Alliance (1998) The African Bushmeat trade – a recipe for extinction. Ape Alliance, London.
- Attwater M, Hudson H, Blake S (1992) Project de Protection de Gorilles, Brazzaville, 1991. Gorilla Conservation News 6: 6-7.
- Aveling C, Aveling R (1987) Zaire Gorilla Conservation Project. Gorilla Conservation News 1: 24.



- Butynski T (1992) Institute of Tropical Forest Conservation - Uganda. Gorilla Conservation News 6: 25
- Butynski TM (2001) Africa's Great Apes. Pp. 3-56 in Beck BB, Stoinski TS, Hutchins M, Maple TL, Norton B, Rowan A, Stevens EF, Arluke A (eds.). Great Apes and Humans: the ethics of coexistence. Smithsonian Institution Press, Washington and London.
- Dowsett-Lemaire F, Dowsett RJ (2001) A new population of gorillas *Gorilla gorilla*, and other endangered primates in Western Cameroon. African Primates 5: 3-7.
- Fossey D (1983) Gorillas in the Mist. Houghton Mifflin Company, Boston, Massachusetts.
- Gadsby L, Jenkins PD (1989) Gorilla conservation project, Cross River State, Nigeria. Progress report June 1989. Gorilla Conservation News 4: 21.
- GRASP Meeting, Cameroon. (2003) Draft map prepared for working purposes at the GRASP Meeting, Cameroon, Annotations added at the meeting by experts (hand-drawn). 18-20, March 2003.
- Hall JS, Saltonstall K, Inogwabini BI, Omari I (1998) Distribution, abundance and conservation status of Grauer's gorilla. Oryx 32 (2): 122-130.
- Harcourt AH (1996) Is the gorilla a threatened species? How should we judge? Biological Conservation 75: 165-176.
- Harcourt AH, Stewart KJ, Inahoro IM (1988) Conservation status of gorillas in Nigeria. Gorilla Conservation News 3: 25.
- Hudson H, Attwater M (1993) Congo Gorilla Protection Project, Update 1992. Gorilla Conservation News 7: 7-8.
- Kalpers J (1993) International Gorilla Conservation Programme. Gorilla Conservation News 7: 17-19.
- Kalpers J, Williamson EA, Robbins MM, McNeilage A, Nzamurambaho A, Lola N, Mugiri G (2003). Gorillas in the crossfire: population dynamics of the Virunga mountain gorillas over the past three decades. Oryx 37 (3): 326-337.
- Leach M (1996) The Great Apes: Our Face in Nature's Mirror, New York: Sterling Publishing Co.
- Lee PC, Thornback J, Bennett EL (1988) Threatened Primates of Africa. The IUCN Red Data Book. IUCN, Gland.
- Lindsey J (2001) The Great Apes. MetroBooks.
- Llewellyn C (2001) Great Apes. Hodder Wayland.
- Napier JR, Napier PH (1985) The natural history of the primates. The MIT Press Cambridge, Massachusetts.
- National Geographic Society (1993) The Great Apes: Between Two Worlds Photos and essays by Michael Nichols.
- Oates JF (1996) African Primates: Status Survey and Conservation Action Plan: Revised Edition. IUCN/SSC Primate Specialist Group, Gland.
- Peterson D, Ammann K, Museveni JK (2003) Eating apes. University of California Press.
- Plumptre A (2004) Annotation of draft map (November 2003) of great ape distribution in Uganda.
- Redmond I (1995) Mission Gorilla. BBC Wildlife Magazine 13: 55-56.
- Singer P (1990) Animal Liberation. Random House Inc., New York, New York.
- Stewart K (1992) Gorilla Conservation in Nigeria, 1991. Gorilla Conservation News.6: 11.
- Strier K (1999) Primate Behavior and Ecology. Freeman & Company.
- Taylor B (2002) Great Apes. Southwater Publishing.
- Weber B, Vedder A (2001) In the Kingdom of Gorillas: Fragile Species in a Dangerous Land. Simon & Schuster. For everybody something interesting is presented.
- Wilks M (1994) The Ape Debate. BBC Wildlife Magazine. 12(11): 12
- Wilson R (1991) The conflict in Rwanda and its impact on the Mountain Gorillas. Oryx 25: 119-120.
- Yamagiwa J, Maruhashi T, Yumoto T, Mwanza N (1989) A preliminary survey on sympatric populations of *Gorilla g. graueri* and *Pan t. schweinfurthii* in eastern Zaire. Gorilla Conservation News 3: 25.

#### Further Sources on the Internet

- Enchanted Learning (<http://www.enchantedlearning.com/subjects/apes/gorilla/>)
- African Wildlife Foundation (<http://www.awf.org/wildlives/149>)
- UNEP – World Conservation Monitoring Centre (<http://www.unep-wcmc.org/>)
- Primate Info Net – PIN ([www.primat.wisc.edu/pin/](http://www.primat.wisc.edu/pin/))