

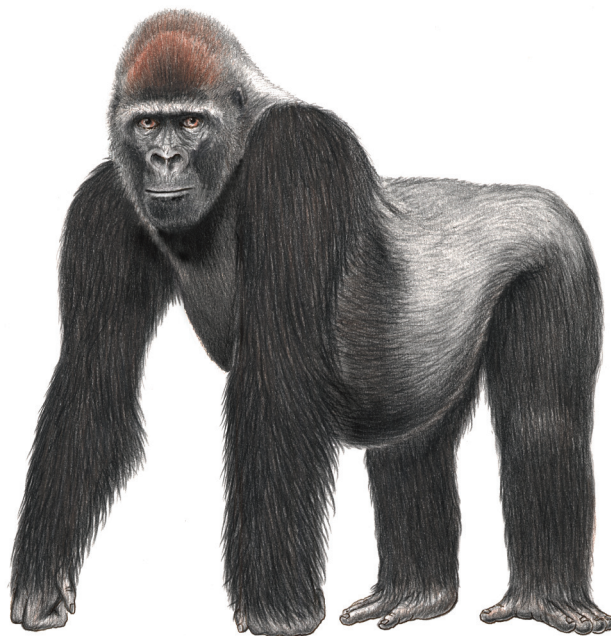
Cross River Gorilla

Gorilla gorilla diehli Matschie, 1904
Nigeria and Cameroon
(2000, 2002, 2004, 2006, 2008)

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The Cross River gorilla (*Gorilla gorilla diehli*) is the most western and northern form of gorilla, and is restricted to the forested hills and mountains of the Cameroon-Nigeria border region at the headwaters of the Cross River. It is separated by about 300 km from the nearest population of western lowland gorillas (*Gorilla gorilla gorilla*), and by around 250 km from the gorilla population in the Ebo Forest of Cameroon. The most recent surveys suggest that between 200 and 300 Cross River gorillas remain. Groups of these gorillas concentrate their activities in 11 localities across a 12,000 km² range, though recent field surveys confirmed the presence of gorillas outside of their known localities suggesting a wider distribution within this range. This distribution is corroborated by genetic research, which has found evidence that many Cross River gorilla localities continue to maintain contact through the occasional dispersal of individuals.

There are many human settlements around the forests where the gorillas occur, including a number of enclaved villages within Okwangwo and Takamanda. The encroachment of farms, dry-season fires set to clear forest or improve pasture, and development activities, such as roads, continue to threaten the integrity of gorilla habitat. However, large tracts of lower elevation forest remain between the localities where the gorillas are presently concentrated, and if these areas can be protected, the animals may be able to expand their range and population size. Genetic evidence suggests that the decline in the population of Cross River gorillas has been recent, and is probably associated with the introduction of hunting with firearms. After several years of awareness-raising by conservationists and researchers, hunting of Cross River gorillas for bushmeat has been reduced to a low level, but it is still a potential threat, as are wire-snare traps set for other animals. A conservation action plan to improve the survival prospects for the Cross River gorilla was published in 2007 (Oates *et al.* 2007), and many of the key recommendations contained in the plan have already been implemented.



Afi Mountain Wildlife Sanctuary (AMWS). AMWS is managed by the Cross River State Forestry Commission with support from a partnership of NGOs. Although levels of hunting have been reduced, the presence of more than 600 illegal farms within the sanctuary remains an unresolved problem. Widespread illegal logging in the contiguous Afi River Forest Reserve (ARFR) and the spread of farms from the intervening Buanchor enclave threaten to sever the habitat corridor linking Afi to the Mbe Mountains in the east. The sanctuary itself has been largely protected from logging due to its steep mountainous slopes, although the forest is frequently damaged by dry-season fires. Habituation of gorillas for the purposes of tourism is proposed, the potential costs and benefits of which are being debated. The sanctuary is also the proposed release site for the reintroduction of captive drills (*Mandrillus leucophaeus*) by the NGO Pandrillus.

The Mbe Mountains. The Mbe Mountains are a critically important corridor linking Afi Mountain to the west with Cross River National Park and the larger block of gorilla habitat to the east. Lacking any formal conservation status, traditional ownership of the Mbe forest is claimed by nine surrounding communities. In 2005, these communities formed the Conservation Association of the Mbe Mountains (Camm) to manage the area both for conservation and to provide benefits to local communities. Capacity building and support for Camm is currently provided by the local NGO Development in Nigeria, and an effective patrol system by a team of eco-guards has been established by the Wildlife Conservation Society (WCS). A protected area boundary has been provisionally demarcated,

Key sites for the Cross River gorilla and the Ebo gorilla

Country/Site	Status	Altitude (m above sea level)	Area (km ²)	Gorilla range (km ²)	Estimated numbers
Nigeria					
Afi Mountain	Wildlife Sanctuary	130–1,300	c.100	40	25–30
Mbe Mountains	Proposed Community Wildlife Sanctuary	110–900	85	25	25–30
Okwangwo Division of Cross River National Park	National Park	110–1,700	640	65	25–50
Cameroon					
Takamanda	National Park and adjacent area of unclassified forest	80–1,700	676	80	45–59
Mone River	Forest Reserve	110–1,200	538	68	20–30
Mbulu	Unclassified forest	500–2,000	c.1,000	54	20–30
Kagwene	Gorilla Sanctuary	1,700–2,000	19	c.9	17–19
Bechati-Fossimondi-Besali	Unclassified forest	200–1,700	80–100	c.25	20–30
Ebo Forest	Proposed National Park	200–1,200	c.2,000	c.25	c.25

and the permanent demarcation and legal gazettement of this boundary is currently in progress. Although the mountains remain under threat from logging, agricultural encroachment and hunting, these threats have diminished somewhat since 2005.

Cross River National Park: Okwangwo Division. Cross River National Park (CRNP) is the most important site for Cross River gorillas in Nigeria and is contiguous with Takamanda in Cameroon. A number of new ranger posts have been constructed, and in 2008 all park rangers received basic training in anti-poaching techniques. Despite the efforts of park authorities, high levels of hunting occur in most areas of the Okwangwo Division (the northern sector of Cross River National Park where gorillas are found), driven by the lucrative bushmeat market. In addition, farmland belonging to three large village enclaves threaten to divide the park in two and thereby isolate the forest and gorillas of the 'Boshi Extension' in the extreme north from the rest of the Okwangwo Division. There have been recent efforts to promote transboundary collaboration between Okwangwo and Takamanda. Unfortunately, should the long-threatened privatization of national parks in Nigeria proceed as planned, the consequences for the remaining gorillas could be catastrophic.

Takamanda National Park. Originally established as a forest reserve in 1934, Takamanda was upgraded to a national park in November 2008. Takamanda's long history of use by local communities poses one of the biggest challenges to conservation in this area. The unsustainable harvesting of wildlife, certain non-timber forest products, and illegal timber extraction (from surrounding areas) must be brought under control. Many of these activities are driven by market forces in Nigeria, and a transboundary approach

is essential to success. Despite these challenges, Takamanda and the adjacent Mawambi Hills located outside the southern boundary of the park provide refuge to a significant proportion of Cameroon's Cross River gorillas as well as scattered groups of drills (*Mandrillus leucophaeus*), chimpanzees (*Pan troglodytes ellioti*), Preuss's guenons (*Cercopithecus preussi*) and other large mammals. The area is also known to be of importance in terms of plant diversity, birds, reptiles and other taxa.

Mone River Forest Reserve. Mone was created as a Forest Reserve in the 1950s. Although there are no human settlements within the reserve, local people continue to harvest timber, wildlife, and other forest products. Due to a varied topography and rich vegetation, Mone still provides habitat for a number of large mammals, including Cross River gorilla in the northern half of the reserve (recent studies have confirmed that these gorillas are using an area larger than previously confirmed). In 2003, the government indicated that they might upgrade Mone to a Wildlife Sanctuary, and surveys have confirmed that this is urgently warranted. WCS in partnership with the UNEP/UNESCO Great Ape Survival Programme (GrASP) is to lead a feasibility study into carbon-based marketing for the area.

Mbulu forest. The Mbulu forest is a large block of unclassified forest which cloaks a series of extremely rugged and remote valleys located between the Kagwene Gorilla Sanctuary and northern Takamanda. Human population pressure is relatively low, with human activities being largely restricted to farming in valley bottoms and accessing the forest via ridges or less steep slopes for hunting and the harvesting of other forest products. Because of the relatively low human pressure, Cross River gorillas and other

important species have found refuge here, and the forests of Mbulu provide one of the best opportunities to maintain some form of habitat corridor connectivity between various Cross River gorilla sites in the area. WCS is reviewing the possibility of establishing new protected areas and corridors, while at the same time working with villages adjacent to Cross River gorilla sites to establish a community-based gorilla protection and monitoring system known as the 'gorilla guardian network.'

Kagwene Gorilla Sanctuary. Created in 2008, this sanctuary is the only protected area established specifically to conserve the Cross River gorilla. Although of limited size, Kagwene is home to a number of gorillas which are the subject of long-term research, monitoring and protection activities. Due to the daily presence of gorilla monitors, Kagwene is an important site for capacity-building related to gorilla monitoring and awareness-raising. In the near future, the Ministry of Forestry and Wildlife plans to post a warden and eco-guards to the Sanctuary, and will become increasingly involved in the financing of the site. Urgently required management measures include the demarcation of boundaries, recovery of farm-encroached forest, and integration of surrounding communities into management strategies. It is also important that forest corridor links with Mbulu are maintained.

Bechati-Fossimondi-Besali (BFB) Forest (now Lebiale-Mone Forest Landscape). The BFB Forest is about 40 km south of Mone and is the southernmost location of the Cross River gorilla. Though of limited size (c.120 km²), the BFB Forest is home to a likely small, but as yet unknown number of gorillas. In 2007, the Environment and Rural Development Foundation (ERuDeF) expanded gorilla research and conservation activities to Ndumbin-Nkandu and the Bechati-Mone Forest Corridor. In 2009, research activities will include the Mak-Betchou Forest, Nkingkwa Hills and Mbanga/Mpongo-Ebensuk Forest. ERuDeF also initiated community-based management activities to secure a future for great apes in the BFB Forest, where the main threats are habitat fragmentation and forest encroachment by small farmers, and hunting.

Ebo Forest. About 250 km south of the Cross River population and 5 km north of the Sanaga River, the Ebo Forest in southwestern Cameroon is home to a small isolated population of gorillas the taxonomic affinities of which are still unclear. The forest, which covers almost 2,000 km² and is adjacent to a large FSC-certified logging concession at its northern perimeter, is characterized by extreme topography and a diversity of habitats, and holds a unique assemblage of 11 diurnal primate species. Researchers from the Zoological Society of San Diego's Ebo Forest Research Project have been working in Ebo since 2005, and one

of the three research stations is situated in the gorilla's range. Recent field research suggests that fewer than 25 individual gorillas survive in an area of about 25 km². The Ebo forest is also inhabited by important populations of other highly threatened species such as the drill (*Mandrillus leucophaeus leucophaeus*), Preuss's red colobus (*Procolobus preussi*) and the Gulf of Guinea chimpanzee (*Pan troglodytes ellioti*). The forest's primates are under extreme pressure from bushmeat hunting to supply the commercial trade, given the proximity of Ebo to the main urban centers in Cameroon. Over 1,000 km² of the Ebo Forest is currently being gazetted as a national park.

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