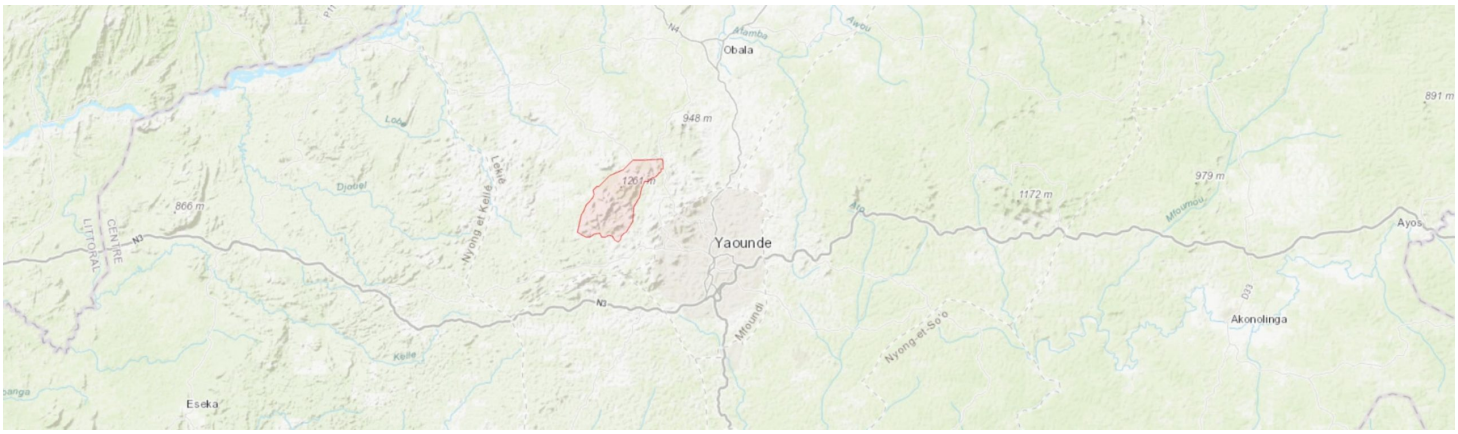
Available from https://tipas.kew.org/site/mbam-minkom-hills-2/
[Accessed 16 June 2026]

Mbam Minkom Hills

CMNTIPA008



Country: **Cameroon**
Administrative region: **Centre (Region)**
Central co-ordinates: **3.96150 N, 11.39150 E**
Area: **86km²**

Qualifying IPA criteria

A(i)

IPA assessment rationale

Mbam Minkom Hills qualifies as a potential IPA under criterion A(i) through the presence of around 20–25 threatened species with important populations at the site. Of these, Coffea fotsoana and Ariostolochia preussii have been assessed as Critically Endangered and Talbotiella bretelerii (known only from two other small, highly threatened sites in Yaoundé) as Endangered. Mbam Minkom is the only known Cameroon location for Polystachya carnosa and Polystachya kubalae and may represent the only population of Coffea fotsoana, a potentially important coffee wild relative. Given the high number of threatened Orchidaceae, one of the few groups for which the site has been well surveyed, it seems very likely that there are more threatened taxa from other plant families yet to be recorded.

Site description

The Mbam Minkom Hills are a series of steep prominences located around 15 km northwest of central Yaoundé, the capital city of Cameroon. Rising to 1,295 m, the highest point in Centre region they represent the highest and largest of the several granulitic (metamorphic) inselberg areas in and around the west of the city. Unlike most of the other prominences much of their vegetation is intact, at least in the submontane altitudinal zone (>900 m). The lower slopes at the perimeter of the area are more degraded by cultivation with farmland and farm fallow.

Botanical significance

Despite their proximity to Yaoundé, the various hills in and around the city have revealed many threatened and rare species of interest. Although relatively little surveyed, Mbam Minkom represents the largest and most intact of these areas and the best hope for conserving some of the species endemic to the Yaoundé area. Simo et al. (2009) have described the orchid flora in recent years but there have been relatively few other surveying efforts. Several of Zenker and Staudt's important historic collections from "Yaundé Station" do not have a known location and have not been recorded in other parts of the country (Cheek et al., 2010). They probably have their best chance of surviving or being rediscovered in the Mbam Minkom Hills.

Habitat and geology

Geologically Yaoundé, the Mbam Minkom Hills and most of the southern part of Central province sit within a large meta-sedimentary area of the South Cameroon Plain, south of the Sanaga fault and north of the north-thrusting ancient Congo craton (Ngnotue et al., 2012). These hills are all formed of granulites and migmatites also referred to as embrichite gneiss (Achoundong, 1985), relatively high grade metamorphic rocks formed from sedimentary and igneous protoliths and apparently dating from around 600 mya (Nzenti, 1988; Tchouatcha et al., 2018; Ngnotue et al., 2012).
Rainfall measurements are not available for the site itself but precipitation is relatively low in Yaoundé at 1,541 mm per annum (period 1971–2000; World Meteorological Organization, 2021). This is below the level normally thought necessary to sustain evergreen tropical forest (Cheek et al., 2011), although it is likely to vary through the site. The steep western faces intercept westerly monsoon winds, resulting in differences in the physiognomy and composition of the vegetation (Noumi, 2015; Simo et al 2009). The precipitation regime is of the Guinean type with a small (March-June) and greater (September-November) wet season interspersed with a drier period (July-August), and a second more severe dry period between December and February when mean monthly rainfall drops below the relatively flat mean monthly temperature curve (range: 22.8–25.47 °C) on a on a Walter-Leith type chart (Simo et al., 2009; Bissaya et al., 2014; Noumi, 2015). Relative to other montane areas, the Mbam Minkom range may exhibit a negative Massenerhebung (mountain mass elevation) effect due to its relative isolation from other large mountains, potentially resulting in plants having lower altitudinal tolerances and high altitude species occurring at lower altitudes than elsewhere (Noumi, 2015).
The vegetation consists of remaining areas of lowland forest much degraded by cultivation, relatively intact submontane forest at 800–1,300 m, and “inselberg” areas characterised by sparse vegetation tolerant of heat and water deficit such as Microdracoides squamosus (Droissart et al., 2006; Onana & Cheek, 2011). “Mbam Minkom” means “rocky domes” in the Ewondo language and the steep topology leaves substantial areas of exposed rock. Forest is semi-deciduous on the lower, eastern slopes but evergreen on the summit. There are many rivers and streams beneath the canopy, often forming steep gullies.

Conservation issues

The proximity of the Mbam Minkom Hills to the capital city presents various conservation challenges and opportunities. Yaoundé was the second largest city in Cameroon at the last census but has been estimated to be growing at over 5% per year and may now have the largest population in the country at over 4 million (United Nations, 2018). It is predicted to reach 5.7 million by 2030. Most of the other hills and areas of vegetation on the western side of the city have been seriously degraded or lost due to small scale agriculture, suburban spread, hotel development, extraction of timber and quarrying. These are all threats to Mbam Minkom as the city enlarges and develops (Nkwemoh et al., 2017, 2018).
Noumi (2015) reports that much forest has been destroyed by small scale agriculture around the edges and on the lower slopes of the Mbam Minkom area but that the interior is largely intact. The western side which is steeper and wetter is less degraded, even though it drops to lower altitudes of around 650 m (Simo et al., 2009). Awa II et al. (2009) report agriculture, logging and settlement within the forest as threats.
The growing size of Yaoundé and its status as a capital city also present an opportunity to benefit the increasing urban population and add prestige to the capital city by protecting the natural heritage of this site. Banco National Park in the city of Abidjan is a possible model. The potential to contribute to clean air, fresh water, leisure, tourism and education present powerful arguments for treating Mbam Minkom and other remaining local inselbergs as integral to the development of the city. Universities and schools utilise Mbam Minkom for fieldwork sites essential for forestry and biodiversity training. The beauty of the landscape is very striking to visitors and there is potential for increased tourism. However, Awa II (2009) report that a tourism drive led to deforestation of important trees and loss of nesting sites to harvest timber for huts at the summit. Unfortunately these huts were poorly sited and were dilapidated by 2009 (O. Lachenaud, 2021, pers. comm. 29 June). Outcomes such as this highlight the importance of integrating biodiversity education and management into well-managed eco-tourism development.
The area demarcated here is narrowly separated from other proposed IPAs (Mt Kala, Eloumden and Mt Minloua). There is potential to integrate these sites and create a much more effective conservation area.

Site assessor(s)

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IPA criterion A species

SPECIES	QUALIFYING SUB-CRITERION	≥ 1% OF GLOBAL POPULATION	≥ 5% OF NATIONAL POPULATION	1 OF 5 BEST SITES NATIONALLY	ENTIRE GLOBAL POPULATION	SOCIO-ECONOMICALLY IMPORTANT	ABUNDANCE AT SITE
Angraecum egertonii Rendle (syn. Ancistrorynchus egertonii)	A(i)	✓	✓	✓	–	–	
Bulbophyllum teretifolium Schltr.	A(i)	✓	✓	✓	–	–	
Cheirostylis divina (Guinea) Summerh. var. ochyrae Szlach. & Olszewski	A(i)	✓	✓	✓	–	–	
Coffea fotsoana Stoffelen & Sonké	A(i)	✓	✓	✓	–	–	
Crossandra obanensis Heine	A(i)	✓	✓	✓	–	–	
Diaphananthe bueae (Schltr.) Schltr.	A(i)	✓	✓	–	–	–	
Hymenostegia viridiflora Mackinder & Wieringa	A(i)	✓	✓	✓	–	–	
Polystachya carnosa P.J.Cribb & Podz.	A(iii)	✓	✓	✓	–	–	
Polystachya kubalae Szlach. & Olszewski	A(i)	✓	✓	✓	–	–	
Stolzia grandiflora P.J.Cribb subsp. lejolyana Stévart, Droissart & M.Simo	A(i)	✓	✓	✓	–	–	
Talbotiella breteleri (Aubrév.) Mackinder & Wieringa	A(i)	✓	✓	✓	–	–	
Ardisia ototomoensis Taton	A(i)	✓	✓	✓	–	–	
Pterorhachis zenkeri Harms	A(i)	–	–	–	–	–	
Boutiquea platypetala (Engl. & Diels) Le Thomas	A(i)	✓	✓	–	–	–	

SPECIES	QUALIFYING SUB-CRITERION	≥ 1% OF GLOBAL POPULATION	≥ 5% OF NATIONAL POPULATION	1 OF 5 BEST SITES NATIONALLY	ENTIRE GLOBAL POPULATION	SOCIO-ECONOMICALLY IMPORTANT	ABUNDANCE AT SITE
Aristolochia preussii Engl.	A(i)	✓	✓	✓	–	–	
Chassalia laikomensis Cheek	A(i), A(iii)	✓	–	–	–	–	
Mussaenda epiphytica Cheek	A(i)	✓	✓	✓	–	–	
Cola hypochrysea K.Schum.	A(i), A(iii)	✓	✓	✓	–	–	
Khaya ivorensis A.Chev.	A(i)	–	–	–	–	✓	
Garcinia kola Heckel	A(i)	–	–	–	–	✓	
Entandrophragma angolense (Welw.) C.DC.	A(i)	–	–	–	–	✓	
Sabicea laxa Wernham	A(i), A(iii)	✓	✓	✓	–	–	
Polystachya kornasiana Szlach. & Olszewski	A(i)	✓	✓	✓	–	–	
Psychotria villicarpa O.Lachenaud subsp. villicarpa	A(i)	✓	✓	✓	–	–	
Chassalia manningii O.Lachenaud ined.	A(i)	✓	✓	✓	–	–	
Psychotria senterrei O.Lachenaud	A(i)	✓	✓	✓	–	–	
Calycosiphonia macrochlamys (K.Schum.) Robbr.	A(i)	–	–	–	–	–	
Kylicanthe cornuata Descourv. & Stévart & Droissart	A(i)	✓	✓	✓	–	–	
Oxyanthus doucetii Sonké & O.Lachenaud	A(i)	✓	✓	✓	–	–	
Ardisia koupensis Taton	A(i)	✓	✓	✓	–	–	
Hymenocoleus glaber Robbr.	A(i)	✓	–	–	–	–	
Psychotria camerunensis E.M.A.Petit	A(i)	–	–	✓	–	–	

SPECIES	QUALIFYING SUB-CRITERION	≥ 1% OF GLOBAL POPULATION	≥ 5% OF NATIONAL POPULATION	1 OF 5 BEST SITES NATIONALLY	ENTIRE GLOBAL POPULATION	SOCIO-ECONOMICALLY IMPORTANT	ABUNDANCE AT SITE

IPA criterion C qualifying habitats

HABITAT	QUALIFYING SUB-CRITERION	≥ 5% OF NATIONAL RESOURCE	≥ 10% OF NATIONAL RESOURCE	1 OF 5 BEST SITES NATIONALLY	AREAL COVERAGE AT SITE

General site habitats

GENERAL SITE HABITAT	PERCENT COVERAGE	IMPORTANCE

Land use types

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE

Threats

THREAT	SEVERITY	TIMING
Agriculture & aquaculture - Annual & perennial non-timber crops - Shifting agriculture	High	Ongoing - trend unknown
Residential & commercial development - Housing & urban areas	Medium	Ongoing - increasing
Biological resource use - Logging & wood harvesting - Unintentional effects: subsistence/small scale (species being assessed is not the target) [harvest]	High	Ongoing - trend unknown
Natural system modifications - Fire & fire suppression - Increase in fire frequency/intensity	High	Ongoing - trend unknown
Energy production & mining - Mining & quarrying	Medium	Future - inferred threat
Geological events - Avalanches/landslides	Medium	Past, likely to return

Conservation designation

DESIGNATION NAME	PROTECTED AREA	RELATIONSHIP WITH IPA	AREAL OVERLAP
Mbam Minkom-Mt Kala IBA	Important Bird Area	protected/conservation area encompasses IPA	–

Management type

MANAGEMENT TYPE	DESCRIPTION	YEAR STARTED	YEAR FINISHED
No management plan in place		–	–

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