

Kom-Wum Forest Reserve

CMNTIPA020



Country: **Cameroon**

Administrative region: **Northwest (Region)**

Central co-ordinates: **6.26000 N, 10.11000 E**

Area: **117km²**

Qualifying IPA criteria

A(i)

IPA assessment rationale

Kom-Wum qualifies as a potential IPA under criterion A(i) on the basis of several globally threatened species for which it is an important site, particularly *Stenandrium thomense* (EN), *Brachystephanus oreacanthus* (VU), *Jollydora glandulosa* (VU) and *Platycoryne megalorrhyncha* (provisionally EN).

Site description

Kom-Wum Forest Reserve is a habitat of river valleys and steep, dissected hills in a relatively low altitude part of the Bamenda Highlands of Northwest region, Cameroon. It lies on the eastern side of the N11 road running north-northwest between Bamenda and Wum, along the river Menchum which flows approximately parallel to this road before continuing northwest to the Nigerian border and then joining the Katsina ala river. Other rivers including the Mentar, Mugom and Movum all join the Menchum within the reserve. Chuo et al. (2017) also mention the Ivin, Nzele and Kimbi but these are unmarked and presumed to be alternative names.

The reserve was established in 1951 when it was part of the Southern Cameroons United Nations Trust Territory under British colonial administration. There were reforestation initiatives implemented by the National Forestry Fund but later neglected

(Morgan, 2011). In 2013 the Cameroon government transferred the reserve to the councils of Fundong, Boyo Division (80%) and Wum, Menchum Division (20%) (Chuo et al., 2017). Documents specify the Fundong administered area as 8029 ha. The total area of the forest reserve mapped by the Cameroon Forest Atlas is 117 km² (MINFOF & WRI, 2020). Seven neighbouring villages are mentioned in the agreement: Bu in Wum subdivision and Mentang, Baiso, Mughom, Mbengkas, Mbongkisu and Aboh in the Fundong subdivision (CTFC, 2013).

Botanical significance

Kom-Wum is notable as the only site in Cameroon for *Brachystephanus oreacanthus* (VU; Cheek, 2014). *Jollydora glandulosa* (VU) is known from two other sites in Cameroon, as well as the Obudu Plateau area in Nigeria, and *Stenandrium thomense* (EN) from three other Cameroon sites and one in Sao Tome (Cheek and Onana, 2011). *Platycoryne megalorrhyncha* (provisionally EN) is only otherwise known from the Bamenda/Bamboutos area (Droissart et al 2006). *Cylicomorpha solmsii* (NT) also has a significant population at Kom-Wum (Cheek et al., 2015). In addition to the other listed species, there are likely to be other threatened species present since there has been very little surveying effort at the site, by Western scientists at least. In particular, species from nearby locations could also potentially occur here such as *Saxicolella marginalis* (CR) and *Dactyladenia johnstonei* (CR) both of which are known from nearby locations in Cameroon and over the border in Nigeria. The site is at much lower altitude than much of the Bamenda Highlands and consequently features submontane and lowland forest that is uncommon in the area, highly threatened and seldom protected.

Habitat and geology

Letouzey (1985) considered submontane forest to occur from 800 to 1,800 m and these altitudinal boundaries were also used by Cable & Cheek (1998) for Mount Cameroon, but Cheek (2004) suggests 1,300 m as the transition from lowland to submontane forest in the Bamenda highlands. The lower lava plateau, on which the major cities of Bamenda and Bali sit, lies in the submontane zone where remaining forest is rare. Most of the Kom-Wum site is much lower than this so the natural vegetation is largely lowland forest, following the categories of Cheek (2004), but extending into the submontane zone in the east of the site. However, the tops of the hills appear on satellite imagery to be mostly lacking vegetation and CTFC (2013) describe savannah vegetation on the summit.

There is no detailed geological information about the site itself but the Bamenda Highlands are part of the volcanic Cameroon Line of highlands extending northwest from the Gulf of Guinea. Tertiary era volcanic rocks sit above more ancient Basement Complex strata. The soils are described as mainly volcanic and sandy (CTFC, 2013), strongly leached, and ferralitic in places but mainly very fertile due to the high organic content, and therefore targeted for cultivation. However, this fertility is quickly lost and soils eroded due to the steep slopes. Landslides are common in the region (Zogning et al., 2007).

At nearby Bamenda (c. 1,250 m.a.s.l.), average annual rainfall (years 1971–2020) is 2,620 mm. There is a single wet season peaking in July and August with over 400 mm monthly rainfall, and a dry season from November to February with

Conservation issues

The Bamenda Highlands is one of the most densely populated areas of Cameroon and most of the richly diverse primary forest has been lost to cultivation and pasture (Harvey et al., 2004). The population has apparently increased rapidly in and around the site in the last two decades and Bamenda, the third largest city in Cameroon with an estimated population 533,000 (United Nations, 2018) is less than 20 km away.

The Kom-Wum reserve has long been exploited as a production forest and efforts at reforestation have been limited (Morgan et al., 2011). Chuo et al. (2017) show evidence of areas within the forest cleared for cultivation of corn, bananas and coca as well as illegal logging and harvesting of other forest products including bushmeat. The southwest and north are reported to be worst effected. Forest is visibly absent on many of the peaks. At this altitude, this is likely to be anthropogenic.

It is unclear what has been the outcome from transferring the forest management to the local councils, although a management plan was reportedly drafted (CTFC, 2013). The transfer agreement specifies the forest can be used as a production forest, within certain environmental guidelines and limitations, including the requirement for forest to be maintained or restored over 3/4 of the area. Chuo et al (2017) suggest that the area is too large for effective management and protection by the local authorities.

As one of the larger patches of remaining forest in the Bamenda highlands, and with Chimpanzees and other animals present, the site

has potential for tourism and education (Chuo et al., 2017). Morgan et al., (2011) classed it as an "exceptional priority site" for conservation action to protect the Nigeria-Cameroon Chimpanzee. The steep forested slopes make up part of the Mentchum watershed, buffering heavy rains, preventing soil erosion and landslides, and maintaining water quality. Landslides and soil erosion are a typical concern in the region where land is cleared for forest (Zognig et al., 2007; Ngoufo, 1992).

Cultural taboos have probably hitherto helped protect the forest, and particularly the primates, but are declining in influence (Chuo & Angwafo, 2017). Eboa et al. (2017) report that conservation is unpopular amongst local people who resent being deprived of the fertile soils, bushmeat and other forest products. Negative attitudes towards conservation were particularly associated with limited lack of formal education.

The two parts of the forest reserve are non-contiguous and some important species may have been recorded from a little outside these borders. Consideration should be given to managing a larger continuous area of remaining forest as a conservation site.

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
<i>Brachystephanus oreacanthus</i> Champl.	A(i)	✓	✓	✓	–	–	
<i>Justicia camerunensis</i> (Heine) I.Darbysh.	A(i)	✓	✓	✓	–	–	
<i>Isoglossa dispersa</i> I.Darbysh. & L.J.Pearce	A(i)	✓	✓	✓	–	–	
<i>Turraeanthus africana</i> (Welw. ex C.DC.) Pellegr.	A(i)	–	–	–	–	✓	
<i>Psychotria podocarpa</i> Petit	A(i)	✓	✓	✓	–	–	
<i>Dorstenia astyanactis</i> Aké Assi	A(i)	–	✓	✓	–	–	
<i>Platycoryne megalorrhyncha</i> Summerh.	A(i)	✓	✓	✓	–	–	
<i>Stenandrium thomense</i> (Milne-Redh.) Vollesen	A(i)	✓	✓	✓	–	–	
<i>Jollydora glandulosa</i> G.Schellenb.	A(i)	✓	✓	✓	–	–	
<i>Drypetes staudtii</i> (Pax) Hutch.	A(i)	✓	✓	✓	–	–	
<i>Impatiens etugei</i> Cheek	A(iii)	✓	✓	✓	✓	–	

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
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General site habitats

GENERAL SITE HABITAT	PERCENT COVERAGE	IMPORTANCE
Forest - Subtropical/Tropical Moist Lowland Forest	–	
Forest - Subtropical/Tropical Moist Montane Forest	–	

GENERAL SITE HABITAT	PERCENT COVERAGE	IMPORTANCE
Savanna - Moist Savanna	—	

Land use types

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE
Forestry	100	

Threats

THREAT	SEVERITY	TIMING
Natural system modifications - Fire & fire suppression - Increase in fire frequency/intensity	Unknown	Future - inferred threat
Pollution - Agricultural & forestry effluents - Soil erosion, sedimentation	High	Future - inferred threat
Geological events - Avalanches/landslides	Medium	Future - inferred threat
Agriculture & aquaculture - Annual & perennial non-timber crops - Shifting agriculture	High	Ongoing - trend unknown
Agriculture & aquaculture - Livestock farming & ranching - Small-holder grazing, ranching or farming	Unknown	Ongoing - trend unknown

Protected areas

PROTECTED AREA NAME	PROTECTED AREA TYPE	RELATIONSHIP WITH IPA	AREAL OVERLAP
Kom-Wum Forest Reserve	Forest Reserve (production)	protected/conservation area matches IPA	117

Management type

MANAGEMENT TYPE	DESCRIPTION	YEAR STARTED	YEAR FINISHED
Site management plan in place	Only a provisional management plan from 2012 has been seen. This makes clear that the community has rights to use the reserve as a production forest; requires 3/4 of the area to be maintained or reforested; lists tree species and diameters at which cutting is permitted; requires an inventory to be carried out to determine extraction levels.	—	—

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