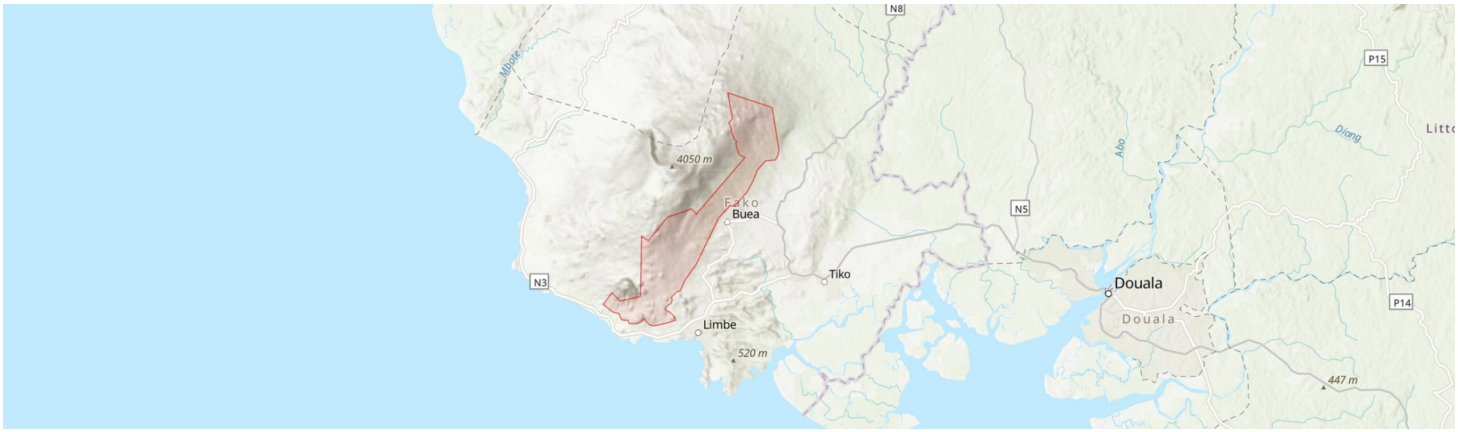
Eastern Mount Cameroon

Etinde and Woteva Community Forests (Test version)

CMNTIPA041



Country: **Cameroon**
Administrative region: **Southwest (Region)**
Central co-ordinates: **4.14000 N, 9.17000 E**
Area: **178km²**

Qualifying IPA criteria

A(i)

IPA assessment rationale

The site supports globally or nationally significant populations of as many as 60 globally threatened taxa (57 species), thereby qualifying as an IPA under criterion A(i).

Site description

On the eastern flanks of Mt Cameroon the existing national park boundary is mostly above 1400 m and runs as high as 2500 m in places, excluding most of the mid-lower slopes above Buea and Likombe. Together with the lower eastern and southern slopes of Mt Etinde, these degraded and threatened forests have recorded many threatened plant taxa and are here proposed as an important plant area. The area includes the Etinde and Woteva community forests as well as a strip connecting these and extending below the former to the southeast of Boando where numerous cinder cones retain some forest. In the northeast, a further section is included between the national park and the northeast boundary of the Woteva forest. The site lies in Fako division of Southwest Region, and straddles Muyaka and Buea subdivisions.

Botanical significance

Mount Cameroon has been an important collecting site for botanists since the nineteenth century, and many expeditions have been made from the towns of Buea and Limbe on the eastern side of the mountain. These have resulted in numerous rare or range-restricted species being recorded from this area (Cable & Cheek, 1998). Some of these are endemic to Mt Cameroon such as Angraecopsis cryptantha (VU), only recorded from this site at 2000 m, and Liparis kamerunensis (CR) which is endemic to upper Mt Cameroon, most recently collected from grassland and cloud forest within this site at c. 2000 m (the type specimen may have been recorded also from this site or perhaps within the National Park). Other important taxa occur at additional mountain sites along the Cameroon Volcanic Line, such as Habenaria thomana (VU), Palisota preussiana (VU) and Tiliacora lehmbachii (EN) all otherwise known only from Mt Kupe. Because of the expansion of Buea, confirmation is needed of the continued presence of some taxa. Disperis kamerunensis (CR) may have been lost from the Buea collection site but is included here

since the only other record is close to the border of this TIPA within the national park. Coleus dissitiflorus (CR) has only been recorded from near Buea over 130 years ago and may not survive.
The lower slopes of Mt Etinde and cinder cones around Boando are included within this site and are important for many taxa, such as Ardisia etindensis (CR), a lowland species otherwise only recorded near Eseka, and Cola metallica (CR).

Habitat and geology

Although the southwestern side of Mt Cameroon is one of the wettest places in the world, the eastern slopes of Mt Cameroon are drier due to the rain shadow effect: at Molyko, a suburb of Buea below the proposed boundary of this IPA at 620 m, annual mean precipitation is 2-3 m compared to nearly 10 m at Debundscha (Fraser et al., 1998). There is a seasonal climate with >100 mm precipiation from April to November (peaking in August), and 1 m mean for July and August when there is rain nearly every day. Maximum and minimum monthly temperatures vary little around means of 24.4 and 19.1 °C respectively, although maxima drop slightly in the rainy season (data for Tole, south of Buea, at c. 630 m, years 1970-76 & 1983-1993).
Mt Cameroon is the highest mountain in West or Central Africa, 1000 m higher than Mt Oku further north along the Cameroon Volcanic Line. It is an active strato-volcano of mainly alkali basalt and basanite overlying uplifted Cretacious to Quaternary sediments and Precambrian metamorphic basement rocks (Dereulle et al, 1987; Mathieu et al., 2011). While surface lavas are variously interpreted as ancient to recent (Ateba, 2000; Fitton, 1983), all dated samples are

Conservation issues

The site is under pressure from farming and logging related to the expansion of communities around Buea (KBA Partnership, 2020). Agro-plantations attract migrant workers, increasing the demand for land and fuelwood (MINFOF, 2014). Two community forests are included within the site boundary, Etinde and Woteva. While much heralded for integrating local people with conservation and sustainable development, the success of community forests in Cameroon has been mixed (Ngalim & Terence, 2016, Minang et al., 2019). At nearby Bimbia-Bonadikombo, forest loss has continued without apparent benefit to the community as a whole (Nkemenyi, 2016; Adeyanju, 2017). There is some indication that Woteva has been more successful in benefitting the community and there have been some reforestation efforts at Etinde and Woteva (Ngang et al., 2018; Piabuo, 2018; Adeline, 2015).
The treeline around 2000-2500 m is largely shaped by volcanic disruption and fire, including anthropogenic burning, rather than climate (Proctor et al., 2007). Fire, often started by hunters, is a major threat to the montane and submonane forests, and montane grassland, particularly because of the free-draining, drought-prone soils with few permanent rivers or springs (Payton 1993; IBA Partnership, 2020). This could also render them particularly vulnerable to climate change reducing precipitation and cloud cover.

Site assessor(s)

Bruce Murphy, Royal Botanic Gardens, Kew

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
Neoschumannia kamerunensis Schltr.	A(i)	✓	✓	✓	–	–	
Chassalia laikomensis Cheek	A(i), A(iii)	–	–	–	–	–	
Liparis kamerunensis Schltr.	A(i)	✓	✓	✓	–	–	
Ardisia etindensis Taton	A(i)	✓	✓	✓	–	–	
Disperis kamerunensis Schltr.	A(i)	✓	✓	✓	–	–	
Microberlinia bisulcata A.Chev.	A(i)	✓	–	✓	–	–	
Aframomum	A(i)	✓	✓	✓	–	–	
Dactyladenia mannii (Oliv.) Prance & F.White	A(i)	✓	✓	✓	–	–	
Cola praecuta Brenan & Keay	A(i)	✓	–	✓	–	–	
Andropogon pusillus Hook.f.	A(i)	✓	✓	✓	–	–	
Ormocarpum klainei Tisser.	A(i)	✓	✓	✓	–	–	
Tiliacora lehmbachii Engl.	A(i)	✓	✓	✓	–	–	
Peperomia kamerunana C.D.C	A(i)	✓	–	✓	–	–	
Pavetta brachycalyx Hiern	A(i)	✓	✓	✓	–	–	
Habenaria batesii la Croix	A(i)	✓	✓	✓	–	–	
Impatiens etindensis Cheek & Eb.Fisch.	A(i)	✓	✓	✓	–	–	
Sabicea xanthotricha Wernham	A(i)	✓	–	✓	–	–	
Afzelia bipindensis Harms	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
Entandrophragma angolense (Welw.) C.DC.	A(i)	–	–	–	–	✓	
Uvariodendron giganteum (Engl.) R.E.Fr.	A(i)	✓	✓	✓	–	–	
Calycosiphonia macrochlamys (K.Schum.) Robbr.	A(i)	–	–	–	–	–	
Salacia volubilis Loes. & H.J.P.Winkl.	A(i)	✓	–	✓	–	–	
Leeuwenbergia letestui Letouzey & N.Hallé	A(i)	–	–	✓	–	–	
Palisota preussiana K.Schum. ex C.B.Clarke	A(i)	✓	✓	✓	–	–	
Amorphophallus preussii (Engl.) N.E.Br.	A(i)	✓	–	–	–	–	
Xylopia africana (Benth.) Oliv.	A(i)	–	✓	✓	–	–	
Angraecopsis cryptantha P.J.Cribb	A(i)	✓	✓	✓	✓	–	
Begonia oxyanthera Warb.	A(i)	✓	–	✓	–	–	
Oncoba lophocarpa Oliv.	A(i)	✓	✓	✓	–	–	
Aneilema silvaticum Brenan	A(i)	✓	✓	✓	–	–	
Lophira alata Banks ex Gaertn.f.	A(i)	–	–	–	–	✓	
Acanthopale decempedalis C.B.Clarke	A(i)	✓	–	–	–	–	
Bulbophyllum bifarium Hook.f.	A(i)	✓	✓	✓	–	–	
Habenaria thomana Rchb.f.	A(i)	✓	✓	✓	–	–	
Calochone acuminata Keay	A(i)	✓	✓	✓	–	–	
Ixora foliosa Hiern	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
Allophylus bullatus Radlk.	A(i), A(iii)	✓	✓	✓	–	–	
Dorstenia prorepens Engl.	A(i)	✓	✓	✓	–	–	
Schefflera hierniana Harms	A(i)	✓	✓	✓	–	–	
Oxyanthus montanus Sonké	A(i)	✓	✓	✓	–	–	
Polystachya albescens Ridl. subsp. angustifolia (Summerh.) Summerh.	A(i)	✓	✓	✓	–	–	
Uvariopsis zenkeri Engl.	A(i)	✓	–	–	–	–	
Panicum acrotrichum Hook.f.	A(i)	✓	–	✓	–	–	
Globimetula oreophila (Oliv.) Tiegh.	A(i)	–	–	✓	–	–	
Diaphananthe bueae (Schltr.) Schltr.	A(i)	–	–	✓	–	–	
Polystachya superposita Rchb.f.	A(i)	✓	✓	✓	–	–	
Dicliptera alternans Lindau	A(i)	–	✓	✓	–	–	
Pseuderanthemum dispermum Milne-Redh.	A(i)	✓	✓	✓	–	–	
Sclerochiton preussii (Lindau) C.B.Clarke	A(i)	✓	✓	✓	–	–	
Tiliacora lehmbachii Engl.	A(i)	✓	✓	✓	–	–	
Stenandrium thomense (Milne-Redh.) Vollesen	A(i)	✓	✓	✓	–	–	
Coleus dissitiflorus Gürke	A(i)	✓	✓	✓	✓	–	
Cola metallica Cheek	A(i)	✓	✓	✓	–	–	
Dactyladenia gilletii (De Wild.)	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
Prance & F.White							
Psychotria asterogramma O.Lachenaud	A(i)	✓	✓	✓	–	–	
Aframomum plicatum D.J.Harris & Wortley	A(i)	✓	✓	✓	–	–	
Angraecum sanfordii P.J.Cribb & B.J.Pollard	A(i)	✓	✓	✓	–	–	
Deinbollia pycnophylla Gilg ex Engl.	A(i)	✓	✓	✓	–	–	
Hymenocoleus glaber Robbr.	A(i)	✓	✓	✓	–	–	
Ixora delicatula Keay	A(i)	✓	✓	✓	–	–	
Ixora delicatula Keay	A(i)	✓	✓	✓	–	–	
Begonia rubromarginata Gilg	A(i)	✓	✓	✓	–	–	
Sabicea urbaniana Wernham	A(iv)	✓	✓	✓	–	–	

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
Forest - Subtropical/Tropical Moist Montane Forest	60	Major
Grassland - Subtropical/Tropical High Altitude Grassland	20	Major
Shrubland - Subtropical/Tropical High Altitude Shrubland	20	Major

Land use types

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE

Threats

THREAT	SEVERITY	TIMING
Residential & commercial development - Housing & urban areas	Medium	Future - inferred threat
Agriculture & aquaculture - Annual & perennial non-timber crops - Shifting agriculture	High	Ongoing - trend unknown
Biological resource use - Logging & wood harvesting	High	Ongoing - trend unknown
Natural system modifications - Fire & fire suppression - Increase in fire frequency/intensity	High	Ongoing - trend unknown

Protected areas

PROTECTED AREA NAME	PROTECTED AREA TYPE	RELATIONSHIP WITH IPA	AREAL OVERLAP
Mount Cameroon National Park	National Park	protected/conservation area is adjacent to IPA	–
Etinde Community Forest; Woteva Community forest	Forest Reserve (production)	IPA encompasses protected/conservation area	38

Conservation designation

DESIGNATION NAME	PROTECTED AREA	RELATIONSHIP WITH IPA	AREAL OVERLAP
Mount Cameroon and Mokoko-Onge	Important Bird Area	protected/conservation area overlaps with IPA	135
Mount Cameroon and Mokoko-Onge	Key Biodiversity Area	protected/conservation area overlaps with IPA	135
Mount Cameroon and Mokoko-Onge	Alliance for Zero Extinction Site	protected/conservation area overlaps with IPA	135

Management type

MANAGEMENT TYPE	DESCRIPTION	YEAR STARTED	YEAR FINISHED
Site management plan in place	A management plan for the neighbouring National Park succeeding that expiring in 2019 has not been seen but is likely to exist	–	–

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