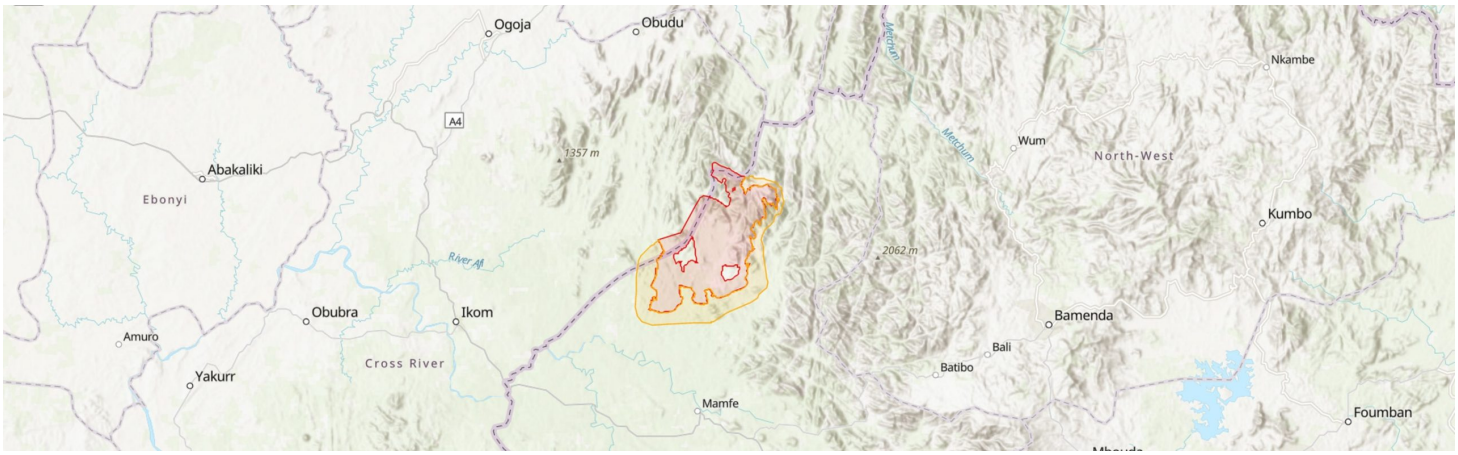
Takamanda National Park

CMNTIPA051



Country: **Cameroon**
Administrative region: **Southwest (Region)**
Central co-ordinates: **6.16000 N, 9.34000 E**
Area: **6759km²**

Qualifying IPA criteria

A(i)

IPA assessment rationale

Takamanda National Park qualifies as an IPA under criterion A(i) through numerous globally threatened species with significant populations at the site. It would also likely qualify under criterion B(i) through its particularly rich lowland forest habitat and B(iii) as it appears to contain a high number of timber and other useful species.

Site description

Takamanda was first gazetted in 1934 by the British colonial administration as a forest reserve to protect timber stocks and watersheds (Sunderland-Groves et al., 2003). It was upgraded to a National Park in 2008, primarily due to the population of Cross River Gorillas (Gorilla gorilla ssp. diehli), and is administered through MINEF's Manyu division office in Mamfé. The National Park covers 67,599 ha but a buffer zone of around 2-5 km width surrounds most of the site, bringing the overall area demarcated here to around 1,000 km2. Two large island enclaves around the villages of Kekpane and Obonyi 1 and Obonyi 3 are excluded from the National Park. A further enclave around Matene is cut out of the boundary in the northeast, adjacent to the Nigerian border, and there is a further small enclave to the west of this.

Around 15,000 people have been estimated to live in the 43 villages within and surrounding the National Park, with the Anyang ethnic group predominant (Sunderland-Groves et al., 2003). Language, ethnicity and trade links the people closely to Nigerian villages across the border. The site has been historically isolated and difficult to access. A road from Mamfe to Akwaya has begun to change this although it remains incomplete after more than 20 years.

Botanical significance

Although Letouzey made some collections between Akwaya and Mamfe at the eastern perimeter of the site, Takamanda had received almost no botanical investigation until Duncan Thomas, Charles Doumenge, Benoit Satabie and colleagues made over 400 collections in 1987. A botanical study was produced for WWF by Etuge in 1998, which was followed by thorough vegetation surveys in 2000-2001 as a contribution to a complete biodiversity assessment of the site (Sunderland et al. 2003; Cominsky et al. 2003). These found the site to be exceptionally diverse, partly owing to the wide altitudinal range of intact forest. Intriguingly, the results also suggested the site was less similar to local sites and had greater affinity with more distant forests (Sunderland et al., 2003). Similarly, some of the species listed here, such as Pachylobus igangana and Prioria balsamifera, appear uncommon in Cameroon but are frequently recorded further south in Gabon.
The site has a number of globally threatened species, although several of these are timber species that are quite wide-ranging. It is likely that the site has still received too little botanical attention to reveal many of its rarer or endemic taxa. In particular, the attention of Orchidaceae and Rubiaceae experts would likely increase the number of threatened species. However, the following taxa are notable. Begonia stellata (CR) is a site endemic with a single record near the village of Mbilishe (Sosef, 1994; Cheek, 2015). Talbotiella bakossiensis (CR) has only otherwise been recorded from 3 other

locations in the Rumpi Hills and Kupe-Bakossi area. Liparis goodyeroides (CR) is one of rather few threatened orchids recorded. Ardisia schlechteri (CR) has been recorded, and although the identification has been doubted, the collection may still represent a different rare species of this difficult genus. Xylopia monticola (VU) was newly described recently (Johnson & Murray, 2018) and the Takamanda collections (Thomas et al., 4558, 7400) represent the most recent and only Cameroon records of the species which is otherwise known only from eastern Nigeria. Brachystegia kennedyi (VU) has a similar distribution, only being known in Cameroon from a single plot record by Sunderland et al. (2003).
Several important taxa have been recorded from a little outside the site, either in Nigeria in the Cross River National Park or between the eastern buffer zone and Mawne River Forest area. These include Rhipidoglossum ochyrae (EN), Brachystephanus longiflorus (VU), Jollydora glandulosa (VU), Pyrenacantha longirostrata (VU), Pseudosabicea pedicellata (VU) Deinbollia maxima (VU) and Mussaenda epiphytica (VU), the latter described as common at the Obudu Cattle Ranch just over the border.
Tilicora lehmbachii (VU) is included in the checklist by Sunderland et al. (2003) but not in their provided records.

Habitat and geology

The terrain varies between the rolling lowland forest of the south (100-400 m) and rugged mountains rising to 1,700 m in the north. The area is underlain by mainly metamorphic basement-complex rocks (gneiss, schist and quartzite), with overlying sediments giving rise to ferite, sedimentary and, in the south, alluvial soils (Sunderland-Groves et al., 2003). Ancient plutonic rocks are indicated along the Nigerian border (Thiéblemont et al., 2021).
Rivers flow predominantly southwards from the northern highlands of the reserve to ultimately join the Cross river. The Makone river flows southwest, meets the Manyu from the east and then joins the Munaya south of the National Park. The Matene rises in the far north of the park before flowing east towards Mbilishe and Akwa to also join the Munaya. The Magbe flows east from Matene area into Nigeria (where it is known as the Oyi) and returns in the south to form part of the western boundary of the National Park before flowing into the Mamfe river.
There are no weather stations close to the National Park and there is likely to be considerable variation from north to south but the climate is essentially of the tropical monsoon type (Koppen Aw), with a single dry season from November to February. At Mamfe (126 m) to the south, Ikom (53 m) to the southwest, and Gakem (165 m) to the northeast annual mean precipitation is 1,849, 2,583 and 1,966 mm respectively, with an average temperature of 25-26.5 °C (Weatherbase, 2022). At higher altitude (1,055 m) Wum, 60 km to the northeast, has 2,154 mm rain per year and an average temperature of 21 °C. Precipitation peaks in September (411 mm at Ikom), while at Mamfe there is

Conservation issues

Although still relatively intact when assessed by Sunderland et al. (2003) and Slayback (2003), there were already indications of increased forest clearance around villages and particularly surrounding the site since the opening of the bridge at Mamfe in the late 1980s and the the building of various unpaved roads and logging tracks. However, in the subsequent two decades the Mamfe-Akwaya road has remained uncompleted. The site has been upgraded to a national park and levels of forest loss appear relatively low with 221 ha (0.4%) of humid primary forest reported lost between 2001 and 2020 (University of Maryland and WRI, 2022). Significant areas have been cleared in the north, around the enclosures and in the buffer zone. Loss of fertility in cultivated land continues to drive additional forest clearance (Unah, 2020).
The ongoing conflict in the region threatens the forest and also means there is no up-to-date information on the current condition of the site. Conservation work is stalled and there is great concern over likely disturbance and poaching of megafauna (Sunday, 2021). The vegetation may be less directly threatened but there are reports of refugees resorting to logging for income on the Nigerian side, while those hiding in forests may also be clearing fresh land for cultivation (Sunday, 2021). Furthermore, the elimination of charismatic wildlife would greatly diminish the chances of successfully protecting the remaining "empty forest" (Redford, 1992), and the loss of megafaunal seed dispersers is probably a latent catastrophe for many forest plant species.
The site borders the Cross River National Park and KBA, benefitting from an enlarged conservation zone and cross border cooperation; there is an aspiration for joint UNESCO World Heritage Site status (Sunday, 2021). Conservation agencies are supported by European funding. On the Cameroon side, the site is part of a large Mone River Landscape scheme that includes Kagwene, Mawne River and Ejgham reserves, but there is a danger of these sites becoming disconnected (WCS Cameroon, 2021).

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
Begonia stellata Sosef	A(i)	✓	✓	✓	✓	–	
Psychotria densinervia (K.Krause) Verdc.	A(i), A(iii)	✓	–	–	–	–	
Chassalia laikomensis Cheek	A(i), A(iii)	–	–	–	–	–	
Rhipidoglossum ochyrae Szlach. & Olszewski	A(i)	–	–	–	–	–	
Uvariopsis korupensis Gereau & Kenfack	A(i)	✓	✓	–	–	–	
Vepris trifoliolata (Engl.) Mziray	A(i)	✓	✓	✓	–	–	
Grossera major Pax	A(i)	✓	✓	✓	–	–	
Uvariopsis vanderystii Robyns & Ghesq.	A(i)	✓	✓	✓	–	–	
Xylopia africana (Benth.) Oliv.	A(i)	✓	–	–	–	–	
Drypetes staudtii (Pax) Hutch.	A(i)	✓	–	–	–	–	
Napoleonaea egertonii Baker f.	A(i)	✓	–	–	–	–	
Uvariopsis zenkeri Engl.	A(i)	✓	✓	✓	–	–	
Xylopia monticola D.M.Johnson & N.A.Murray	A(i)	✓	✓	✓	–	–	
Memecylon dasyanthum Gilg & Ledermann ex Engl.	A(i)	✓	–	–	–	–	
Uvariodendron giganteum (Engl.) R.E.Fr.	A(i)	✓	–	–	–	–	
Leonardoxa africana (Baill.) Aubrév. subsp. letouzeyi McKey	A(i)	✓	✓	✓	–	–	
Afzelia africana Sm. ex Pers.	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
Afzelia pachyloba Harms	A(i)	–	✓	–	–	✓	
Ancistrocladus letestui Pellegr.	A(i)	✓	–	–	–	–	
Anopyxis klaineana (Pierre) Engl.	A(i)	–	✓	✓	–	✓	
Antrocaryon micraster A.Chev. & Guillaumin	A(i)	–	✓	–	–	✓	
Brachystegia kennedyi Hoyle	A(i)	✓	✓	✓	–	✓	
Pachylobus igaganga (Aubrév. & Pellegr.) Byng & Christenh.	A(i)	–	✓	✓	–	✓	
Diospyros crassiflora Hiern	A(i)	–	–	–	–	✓	
Drypetes preussii (Pax) Hutch.	A(i)	✓	–	–	–	–	
Prioria balsamifera (Vermoesen) Breteler	A(i)	–	–	✓	–	✓	
Microberlinia bisulcata A.Chev.	A(i)	✓	–	–	–	✓	
Cordia platythyrsa Baker	A(i)	–	–	✓	–	✓	
Afzelia bipindensis Harms	A(i)	–	–	–	–	✓	
Afzelia pachyloba Harms	A(i)	–	–	–	–	✓	
Salacia volubilis Loes. & H.J.P.Winkl.	A(i)	✓	✓	✓	–	–	
Garcinia kola Heckel	A(i)	–	–	–	–	✓	
Entandrophragma angolense (Welw.) C.DC.	A(i)	–	–	–	–	✓	
Leplaea cedrata (A.Chev.) E.J.M.Koenen & J.J.F.E.de Wilde	A(i)	–	–	–	–	✓	
Leplaea thompsonii (Sprague & Hutch.) E.J.M.Koenen &	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
J.J.de Wilde							
Lophira alata Banks ex Gaertn.f.	A(i)	–	–	–	–	✓	
Nauclea diderrichii (De Wild. & T.Durand) Merrill	A(i)	–	–	–	–	✓	
Diaphananthe bueae (Schltr.) Schltr.	A(i)	–	–	–	–	–	
Lobelia columnaris Hook.f.	A(i)	✓	–	–	–	–	
Tiliacora lehmbachii Engl.	A(i)	✓	✓	✓	–	✓	
Strychnos staudtii Gilg	A(i)	–	–	–	–	–	
Garcinia afzelii Engl.	A(i)	–	–	✓	–	–	
Talbotiella bakossiensis Cheek	A(i)	✓	✓	✓	–	–	
Liparis goodyeroides Schltr.	A(i)	✓	✓	✓	–	–	
Aframomum plicatum D.J.Harris & Wortley	A(i)	✓	✓	–	–	–	
Gaertnera letouzeyi Malcomber	A(i)	✓	✓	✓	–	–	

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	20	Major
Forest - Subtropical/Tropical Moist Lowland Forest	70	Major
Grassland - Subtropical/Tropical High Altitude Grassland	5	Unknown
Forest - Subtropical/Tropical Swamp Forest	5	Unknown

GENERAL SITE HABITAT	PERCENT COVERAGE	IMPORTANCE

Land use types

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE
Nature conservation	100	Major

Threats

THREAT	SEVERITY	TIMING
Agriculture & aquaculture - Annual & perennial non-timber crops - Shifting agriculture	Medium	Ongoing - trend unknown
Agriculture & aquaculture - Livestock farming & ranching - Small-holder grazing, ranching or farming	Unknown	Ongoing - trend unknown
Biological resource use - Logging & wood harvesting	Medium	Ongoing - trend unknown
Natural system modifications - Fire & fire suppression - Increase in fire frequency/intensity	Medium	Ongoing - trend unknown
Human intrusions & disturbance - War, civil unrest & military exercises	High	Ongoing - trend unknown

Protected areas

PROTECTED AREA NAME	PROTECTED AREA TYPE	RELATIONSHIP WITH IPA	AREAL OVERLAP
Takamanda National Park	National Park	protected/conservation area matches IPA	676

Conservation designation

DESIGNATION NAME	PROTECTED AREA	RELATIONSHIP WITH IPA	AREAL OVERLAP
Cross River National Park	Key Biodiversity Area	protected/conservation area is adjacent to IPA	–

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