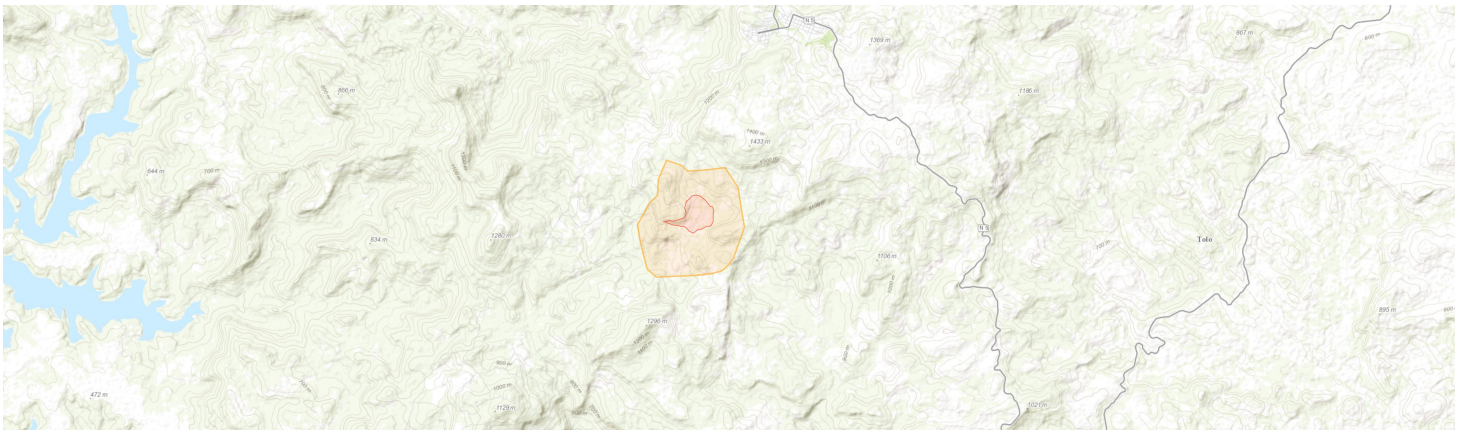
Koba sandstone bowal

GUITIPA008



Country: **Guinea**
Administrative region: **Dalaba (Prefecture)**
Central co-ordinates: **10.63306 N, -12.27861 E**
Area: **1km²**

Qualifying IPA criteria

A(i), A(iii), C(iii)

IPA assessment rationale

The site at Koba represents the largest populations of Mesanthemum tuberosum and Raphionacme caerulea in the Fouta Djallon and is a good example of high altitude sandstone bowal. This is a pure sandstone outcrop and is unlike some other bowal areas in the Fouta which are iron-based bowal. Mesanthemum tuberosum is endemic to the Fouta Djallon, and although present in many areas in small numbers, there is no other site at present with such a concentration.

Site description

Sandstone outcrop and bowal, known locally as 'kapété', with shallow and medium depth soils, close to the village of Koba, c. 7km south west of the town of Dalaba. Grassland with trees in the deeper soils or growing through cracks in the rocky outcrop. The outcrop is part of the high altitude plateau of the Fouta Djallon and is between 1050m and 1350m altitude and c. 1km2 in area.

Botanical significance

The flat, plain area has the largest population of Mesanthemum tuberosum (rediscovered in 2017) found in the Fouta Djallon area. It also has a population of Raphionacme caerulea. This is a good example of high altitude sandstone bowal in the Moyenne Guinee region. It is considered likely that revisiting the site at different seasons (e.g. Oct), will result in additional threatened species being identified.

Habitat and geology

High altitude sandstone bowal grassland, dominated by Elymandra subulata with many herbs present including Mesanthemum tuberosum, Buchnera bowalensis, Cyanotis arachnoidea, Cyanotis lanata, Tephrosia platycarpa, Crotalaria lathyroides, Fimbristylis schweinfurthiana, Nemum spadiceum, Raphionacme caerulea and Platycornye paludosa. In the deeper soil pockets, trees and shrubs of Dichaetanthera echinulata, Vismia guineensis and Psorospermum febrifugum and Ficus sp. can be found. There is a river to the south

west of the site with riverine species present. This area is part of the Oundou series of interbedded quarzitic sandstone and dolomitic clays with Mesozoic intrusions of dolerite or gabbro-dolerites. (Source: Carte des Mineraux Utiles de la Republique de Guinee, 2006).

Conservation issues

The area is used for grazing cattle and goats and this could cause problems for some species from grazing and trampling. Also, increased nitrification of the soil may lead to enrichment and a decrease in species diversity. It has been observed that the Raphionacme caerulea plants do not seem to make it to seed dispersal stages – plants viewed in flower and GPS marked, could not be refound in the fruiting season (Couch, pers. Obs. 2017).

Site assessor(s)

Charlotte Couch, Royal Botanic Gardens Kew

Martin Cheek, Royal Botanic Gardens Kew

IPA criterion A qualifying 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
Raphionacme caerulea E.A.Bruce	A(i)	✓	✓	✓	–	–	Scarce
Mesanthemum tuberosum Lecomte	A(i)	✓	✓	✓	–	–	Frequent
Cyanotis ganganensis Schnell	A(i)	✓	✓	✓	–	–	Scarce
Dichaetanthera echinulata Hook.f.	A(i)	✓	✓	✓	–	–	Scarce

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
High Altitude Sandstone Bowal Grasslands	C(iii)	–			1

General site habitats

GENERAL SITE HABITAT	PERCENT COVERAGE	IMPORTANCE
Grassland - Subtropical/Tropical Seasonally Wet/Flooded Lowland Grassland	–	

Land use types

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE
Agriculture (pastoral)	–	Minor

Threats

THREAT	SEVERITY	TIMING
Agriculture & aquaculture - Livestock farming & ranching - Small-holder grazing, ranching or farming	Medium	Ongoing - stable
Natural system modifications - Fire & fire suppression - Increase in fire frequency/intensity	Medium	Ongoing - stable

Bibliography

Lisowski, S. 2009. **Flore (Angiospermes) de la République de Guinée..**

Couch, C; Magassouba, S; Rokni, S; Cheek, M. 2018. **Threatened plants species of Guinea-Conakry: A preliminary checklist.** Peerj Preprints

IUCN 2019. **IUCN Red List.**

Phillips, S.M., Fofana, F. & Cheek, M. 2018. **Mesanthemum tuberosum Lecomte resurrected from M. prescottianum (Bong.) Körn. (Eriocaulaceae), variation and lectotypification.** Kew Bulletin, Vol 73:13 (pub. Springer London)

Couch, C. 2016. **TIPAs Guinea Darwin Project report: Field expedition to Fouta Djalon.**

Couch, C. 2017. **TIPAs Guinea Darwin Project report: Field expedition to Fouta Djallon.**