KOBA SANDSTONE BOWAL, DALABA PREFECTURE

ABSTRACT
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 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.

Charlotte Couch and Martin Cheek

IPA criteria under which the site qualifies: A (i,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 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 overview

### Site name: Koba sandstone Kapété

| Country: Republic of Guinea | Administrative region: Dalaba |
| Central co-ordinates: 10° 37' 59'' N, 12° 16' 43'' W | Area (km²): 1 km² |
| Altitude minimum: 1050m | Altitude maximum: 1130m |

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. 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. Grassland with trees in the deeper soils or growing through cracks in the rocky outcrop.

Image 1: Google Earth image showing the proposed IPA site in relation to Dalaba town
BOTANICAL SIGNIFICANCE

The flat plain area has the largest population of *Mesanthemum tuberosum* (rediscovered in 2017) found in the Fouta Djallon area and has a population of *Raphionacme caerulea*. This is a good example of high altitude sandstone bowal, ‘kapété’, 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.

GENERAL HABITAT AND GEOLOGY DESCRIPTION

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 *Sakersia 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 quartzitic 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).
PROTECTED AREA STATUS AND MANAGEMENT

This area is included in any protected area at present. Currently not managed-discussions to take place with local government authorities, 2018.

THREATS

Pastoral farming

The area is used for grazing cattle and goats and this could cause problems for some species from grazing and trampling.

THREAT LEVEL: Medium

Criterion A: Threatened Species

<table>
<thead>
<tr>
<th>Criterion A taxon present</th>
<th>IPA subcriterion</th>
<th>IUCN redlist assessment</th>
<th>≥ 1% of global population</th>
<th>≥ 5% of national population</th>
<th>Is 1 of 5 best sites nationally</th>
<th>≥ 10% of global population</th>
<th>Entire global population (single-site endemic)</th>
<th>Species is of socio-economic importance</th>
<th>Abundance at site</th>
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</thead>
<tbody>
<tr>
<td>[Genus, species, Author, [infra rank, infra name, infra Author]]</td>
<td>[A(x)]</td>
<td>[category and criteria]</td>
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<tr>
<td>Raphionacme caerulea E.A. Bruce</td>
<td>A(i)</td>
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<td></td>
<td></td>
<td>✓</td>
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<td>Infrequent</td>
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<tr>
<td>Mesanthemum tuberosum Lecomte</td>
<td>A(i,iii)</td>
<td>VU</td>
<td>✓</td>
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<td>✓</td>
<td></td>
<td>No</td>
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Criterion B: Botanical Richness

Insufficient information for this criterion
## Criterion C: Threatened Habitat

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<th>IPA subcriterion</th>
<th>IUCN redlist assessment</th>
<th>Site contains...</th>
<th>For KBA compatibility: Site contains...</th>
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<tbody>
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<td>High altitude sandstone bowal</td>
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### Bibliographie

IUCN Red List of Threatened Species: [www.redlist.org](http://www.redlist.org)


**Rapport du terrain**

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

C Couch July 2017. TIPAs Guinea Darwin Project report: Field expedition to Fouta Djallon
Site in pictures

Koba sandstone Kapété in June 2016 (Photo: C. Couch ©RBG Kew)

Koba sandstone Kapété in June 2016 (Photo: C. Couch ©RBG Kew)