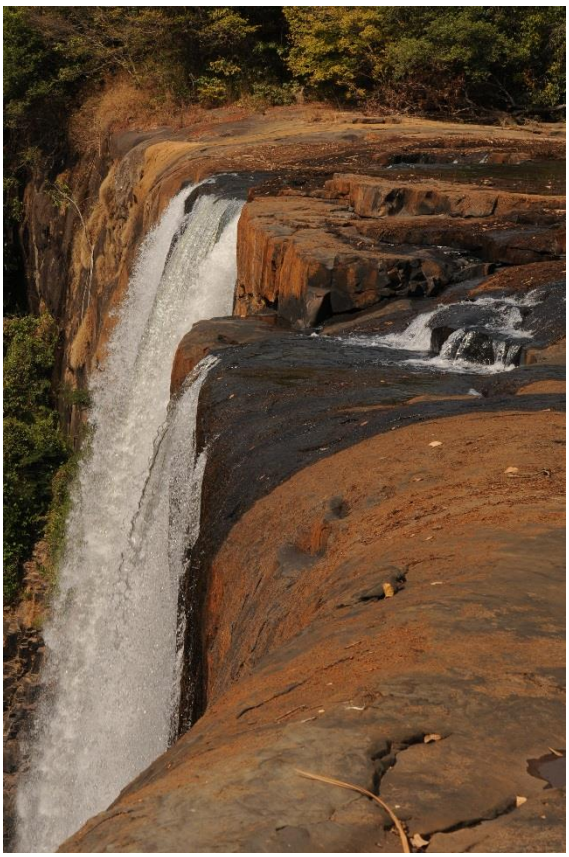


TIPA ASSESSEMENT:

KAMBADGA FALLS, PITA PREFECTURE

ABSTRACT

Kambadga Falls is the only existing site known globally for the Inversodicraea abbayesii CR(PE), and for Stonesia fascicularis CR. It also has a population of Saxicolella futa Cheek ined. (likely EN) a new species discovered in 2018, and Eriocaulon sulanum EN only the second population known in Guinea. It is under threat from the proposed building of a hydroelectric dam.

Charlotte Couch and Martin Cheek

Royal Botanic Gardens Kew

GUINEE ECOLOGIE

Plantlife

Herbier National de Guinée

DARWIN INITIATIVE

TIPAs Assessment: Kambadga Falls, Pita Prefecture.

IPA criteria under which the site qualifies: A(i), (B(i), C(iii)

Assessed by: Charlotte Couch and Martin Cheek (RBG Kew)

IPA ASSESSMENT RATIONALE

Kambadga Falls is the only existing site known globally for the *Inversodicraea abbayesii* CR(PE), and for *Stonesia fascicularis* CR. It also has a population of *Saxicolella futa* Cheek ined. (likely EN), a new species discovered in 2018, and *Eriocaulon sulanum* EN only the second population known in Guinea. It is under threat from the proposed building of a hydroelectric dam.

SITE OVERVIEW

Site Name: Kambadga Falls	
Country: Republic of Guinea	Administrative region: Pita Prefecture
Central co-ordinates: 10° 59’ 52’’ N, 12° 29’ 31’’ W	Area (km^2): 2 km^2
Altitude minimum: 520 m	Altitude maximum: 730 m

SITE DESCRIPTION

The Kambadga Falls are located around 21 km from Pita town and are on the Kokoulo River, (an affluent of the Konkouré), the Kinkon Falls and hydroelectric dam are 15km up stream. The falls are made up of a series of four cascades, the first two being the highest. The river is flanked by thin strips of gallery forest. It is a popular tourist site with an ecovillage nearby.

Map showing the proposed area for protection as an IPA. Core area in red, buffer zone in yellow.

Botanical significance

The succession of fast flowing rapids and waterfalls at Kambadga is particularly rich in rheophyte species with 4 species of Podostemaceae, two of which are Critically Endangered and were made locally extinct due to the Kinon dam and had been thought possibly globally extinct before they were found at Kambadga, and *Eriocaulon sulanum* EN for which this is only one of two sites known in Guinea.

Associated rheohytes were *Tristicha trifaria, Eriocaulon latifolium, Gnidia kraussiana, Hygrophila* and *Culcasia.* The submontane gallery forest is intact and includes *Uapaca chevalieri, Gardenia imperialis, Hypolytrum senegalensis, Ficus saussureana, Usteria, Harungana, Bertiera, Anthocleista, Alchornea, Kotschya, Syzygium, Pavetta, Garcinia, Warneckea* and *Anthostemma.*

General habitat and geology description

The river valley has carved its way through the surrounding Ordovician quartzite rich sandstone to older argillites and aleurolites interlayered with quarzitic sandstone. The river is flanked by thin strips of gallery forest though much of the surrounding area has been cleared for farming over the years.

Conservation issues

The site has been earmarked for a hydroelectric dam financed by the Chinese investors (sign found close to the falls). The site is popular with tourists who have low-level impact by trampling.

Protected area status and Management

No protection is currently in place.

THREATS

Tourism:	Impacts from tourists (trampling).
Hydroelectric dam:	Proposed site for a new dam.

THREAT LEVEL: **Medium-High**

Criterion A: Threatened Species

			Site contains…					
Criterion A taxon present	IPA subcriterion	IUCN redlist assessment	**≥ 1% of global population**	**≥ 5% of national population**	**Is 1 of 5 best sites nationally**	Entire global population (single-site endemic)	Species is of socio-economic importance	*Abundance at site
Inversodicraea abbayesii G.Taylor	A(I)	CR(PE)	⊙	⊙	⊙	⊙		Frequent
Stonesia fascicularis G.Taylor	A(I)	CR (PE)	⊙	⊙	⊙	⊙		Frequent
Saxicolella futa Cheek ined.	A(I)	EN	⊙	⊙	⊙			Scarce
Eriocaulon sulanum S.M.Phillips & Burgt	A(I)	CR	⊙	⊙	⊙			Scarce

Associated look-up tables: Abundance (Abundant, Common, Frequent, Infrequent, Scarce, Unknown).

Criterion B: Botanical Richness

B(i) exceptional botanical richness within a defined habitat			B(ii): exceptional number of species of conservation importance - site recording table (from nationally agreed list)		B(iii): exceptional number of useful / culturally valuable species (from nationally agreed list)	
*Habitat code and name	**Site is part of the top 10% of the national resource**	**Site is one of the 5 best sites nationally for that habitat**	**Site contains ≥ 3% of the species on the national list**	**Site is one of the 15 richest locations nationally**	**Site contains ≥ 3% of the species on the national list**	**Site is one of the 15 richest locations nationally**
Waterfalls and rapids with Podostemaceae	○	⊙	○	○	○	○

*Criterion B taxon present [select from taxon look-up table]	Sub-criterion under which species qualifies	For B(i) – indicator of habitat	*Abundance at site
Inversodicraea abbayesii G.Taylor	B(i)	Waterfalls and rapids with Podostemaceae	Locally common
Stonesia fascicularis G.Taylor	B(i)	Waterfalls and rapids with Podostemaceae	Locally common
Saxicolella futa Cheek ined.	B(i)	Waterfalls and rapids with Podostemaceae	infrequent
Eriocaulon sulanum S.M.Phillips & Burgt	B(i)	Waterfalls and rapids with Podostemaceae	infrequent

Criterion C: Threatened Habitat

*Habitat type	IPA subcriterion	IUCN redlist assessment	Site contains… ≥ 5% of national resource (for C(i) and C(ii))	Site contains… ≥ 10% of national resource (for C(iii))	Estimated area at site (if known)
Waterfalls and rapids with Podostemaceae	C(iii)		○	⊙	1 km^2

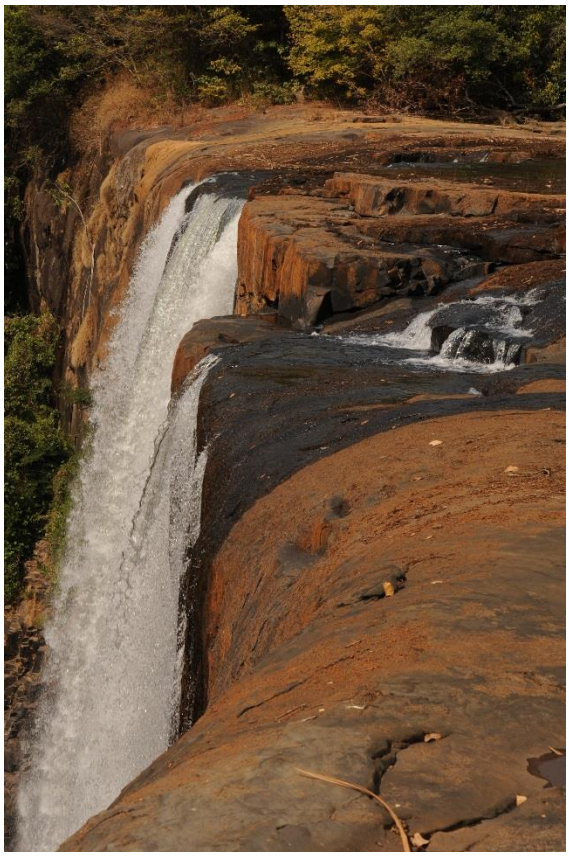
Bibliography

IUCN Red List: www.redlist.org accessed Dec 2018

Couch, C; Magassouba, S; Rokni, S; Cheek, M. (2107) Threatened plants species of Guinea-Conakry: A preliminary checklist. PeerJ Preprints. https://doi.org/10.7287/peerj.preprints.3451v1

Site in pictures

Kambadga Falls, Jan 2018. Photo: M. Cheek ©RBG Kew



Kambadga Falls, Jan 2018. Photo: M. Cheek ©RBG Kew

Eriocaulon sulanum and *Culcasia* sp. Jan 2018. Photo: M. Cheek ©RBG Kew

Inversodicraea abbayesii CR (PE) Jan 2018. Photo: M. Cheek ©RBG Kew

Stonesia gracilis EN Jan 2018. Photo: M. Cheek ©RBG Kew