Cryptosepalum korupense Burgt, sp. nov. (Leguminosae, Caesalpinioideae), a tree species from the Southwest Region in Cameroon

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ABSTRACT
The tree species *Cryptosepalum korupense* Burgt, sp. nov. (Leguminosae: Caesalpinioideae) is described and illustrated. *Cryptosepalum korupense*, sp. nov. is related to C. staudtii Harms. *Cryptosepalum korupense*, sp. nov. has (10-)14-21(-26) pairs of leaflets; *C. staudtii* has 10-14(-16) pairs of leaflets. The placement of the midvein of the small, emarginate leaflets of *C. korupense*, sp. nov. distinguishes the species from all other West and Central African Caesalpinioideae species. *Cryptosepalum korupense*, sp. nov. trees can grow to 44 m high and 88 cm trunk diameter. The new species presents ballistic seed dispersal and grows gregariously; a map of a group of 14 trees is presented. *Cryptosepalum korupense*, sp. nov. is endemic to the Southwest Region in Cameroon. In southern Korup National Park 18 trees over 10 cm trunk diameter were found during the mapping of *c.* 11.2 km^2 of forest. Of the trees over 50 cm trunk diameter, one tree out of *c.* 3100 trees is *C. korupense*, sp. nov. The new species was also found along the banks of the Idu River near the village Besingi, and in the lowland forests northwest of Mount Cameroon. *Cryptosepalum korupense*, sp. nov. is assessed as Endangered (EN) and *C. staudtii* as Least Concern (LC) under the criteria of the IUCN.

KEY WORDS
Ballistic seed dispersal,
Fabaceae,
gregarious,
Korup National Park,
primary forest,
small leaflets,
new species.

RÉSUMÉ

Cryptosepalum korupense*, sp. nov. (Leguminosae, Caesalpinioideae), une nouvelle espèce d'arbre de la Région du Sud-Ouest du Cameroun.*

L'espèce d'arbre *Cryptosepalum korupense* Burgt, sp. nov. est décrite et illustrée. *Cryptosepalum korupense*, sp. nov. se rapproche de *C. staudtii* Harms. *Cryptosepalum korupense*, sp. nov. a (10-)14-21(-26) paires de folioles; *C. staudtii* a 10-14(-16) paires de folioles. La position de la nervure principale des folioles petites et émarginées de *C. korupense*, sp. nov. distingue cette espèce de toutes les autres espèces de Caesalpinioidées de l'Afrique de l'ouest et centrale. Les arbres peuvent croître jusqu'à 44 m de hauteur avec un diamètre du tronc de 88 cm. La nouvelle espèce est grégaire et présente des graines à dispersion balistique. Une carte d'un groupe de 14 individus est fournie ici. *Cryptosepalum korupense*, sp. nov. est endémique de la Région du Sud-Ouest du Cameroun. Dans la partie sud du Parc national de Korup, 18 arbres de plus de 10 cm de diamètre ont été retrouvés pendant le relevé d'environ 11,2 km² de forêt. Parmi les arbres de plus de 50 cm de diamètre, unsur environ 3100 correspondent à *C. korupense*, sp. nov. La nouvelle espèce a aussi été retrouvée le long des rives du fleuve Idu près du village de Besingi, et dans les forêts de basse altitude situées au Nord-Ouest du Mont-Cameroun. *Cryptosepalum korupense*, sp. nov. est classée comme En Danger (EN) et *C. staudtii* comme Préoccupation mineure (LC) d'après les critères de l'UICN.

MOTS CLÉS
Dispersion balistique des graines, Fabacées, grégaire, Parc national Korup, forêt primaire, petites folioles, espèce nouvelle.

INTRODUCTION

In December 1999 transects were made around a grove of trees of *Microberlinia bisulcata* A.Chev. (Leguminosae, Caesalpinioideae) of 2.72 km² in Korup National Park, Cameroon (Newbery *et al.* 2004), to confirm that there were no *M. bisulcata* trees in the forest around this grove. When walking along a transect, the presence of a mature *M. bisulcata* tree is usually first shown by the presence of its seedlings, which are easy to recognize and they are present up to 50-70 m, but never further from the trunk of the parent tree (Newbery *et al.* 2004). On one of these transects, at *c.* 530 m further south of the last *M. bisulcata* tree along that transect, seedlings were found that resembled those of *M. bisulcata* but belonged to a different species. The parent tree, with a smooth bark very different from that of *M. bisulcata,* was found nearby (Fig. 1D). A sterile sample collected from this tree was preliminarily identified to *Plagiosiphon emarginatus* (Hutch. & Dalziel) J.Léonard.

This tree, standing in a remote part of Korup National Park, about 1.5 km away from the nearest path, was revisited about 20 times over the next eight years in an attempt to collect fertile specimens, but without success. In March 2007, branches with young infructescences and old flower buds were collected from another tree of the same species, found near the village of Besingi (*van der Burgt 922*). This sample was identified to an undescribed species in the genus *Cryptosepalum* Benth. The flowering period of the tree was assumed to be in February, but none of the known trees were flowering in February 2008 and 2009. It was only in February 2010, more than ten years after the first tree of the species was found, that the late field botanist Jackson Motoh was able to collect flowers (*Motoh 6*). These flowers clearly belong to the genus *Cryptosepalum* but the leaves do not match any of the known species in the genus. The species is here described as new.

The different species in the genus *Cryptosepalum* have an exactly similar floral and fruit structure (Léonard 1952). The flowers are characterized by

Fig. 1. — *Cryptosepalum korupense* Burgt, sp. nov.: **A**, twigs and leaves; **B**, infructescence with two fruits; **C**, flushing leaves; **D**, trunk of a tree of 88 cm diameter at 1.3 m; **A**, **C**, from *van der Burgt 848*; **B**, from *van der Burgt 931*; **D**, from *van der Burgt 941*. Photos by Xander van der Burgt.

persistent, valvate, well-developed bracteoles, by very small or absent sepals and by a (usually) single well-developed petal (Aubréville 1970). The leaf characteristics vary considerably between the species, but Léonard (1952) does not consider this a strong enough character to justify generic division.

The genus *Cryptosepalum* consists of 12 species, including the new species presented here (Mackinder 2005; African Plants Database 2013; this paper). Eight species are trees from the lowland forests of West and Central Africa (African Plants Database 2013). Their leaves may be unifoliolate (*C. congo-*

lanum (De Wild.) J.Léonard; *C. pellegrinianum* (J.Léonard) J.Léonard), bifoliolate (*C. ambamense* Letouzey; *C. diphyllum* Duvign.; *C. minutifolium* Hutch. & Dalziel), tetrafoliolate (*C. tetraphyllum* Benth.) or multifoliolate (*C. staudtii* Harms; as well as the new species presented here). Four species occur in seasonally dry, fire-prone woodland and scrub forest in Angola, south and east Congo (Kinshasa), Zambia, Zimbabwe, Malawi, Tanzania and Mozambique (Mackinder 2005; African Plants Database 2013). One of these four species, *C. exfoliatum* De Wild., is a multifoliolate shrub or small tree, sometimes suffruticose. The three other species, *C. katangense* (De Wild.) J.Léonard, *C. maraviense* Oliv. and *C. mimosoides* Welw. ex Oliv., are multifoliolate suffrutices.

MATERIAL AND METHODS

All available material of *Cryptosepalum*, *Didelotia* Baill., *Plagiosiphon* Harms and *Microberlinia* A.Chev. from K, SCA, WAG and YA was examined. All cited specimens except one (*Parmentier & Nguema 30*; *Cryptosepalum staudtii*) have been seen by the authors, but not all duplicates cited may have been seen. The majority of herbarium specimens were examined in reality; but some specimens were diagnosed using images on the web. The methodology of the ecological research is described in Newbery *et al.* (2004, 2013). The conservation status category of the species in this paper was assessed using the criteria defined by the IUCN (2013).

SYSTEMATICS

Family Caesalpinioideae Kunth
Genus *Cryptosepalum* Benth.

Cryptosepalum korupense Burgt, sp. nov.
(Figs 1-4)

Cryptosepalum korupense*, sp. nov. is related to* Cryptosepalum staudtii *Harms.* Cryptosepalum korupense*, sp. nov. has (10-)14-21(-26) pairs of leaflets;* C. staudtii *has 10-14(-16) pairs of leaflets. The leaflets of* C. korupense*, sp. nov. are divided by the midvein into two unequal parts; near the apex of the leaflet, the proximal part (the part closest to the twig) is 3-4 × wider than the distal part (the part furthest from the twig). In* C. staudtii *the proximal part of the leaflet near the apex is only 1-1.5 × wider than the distal part. The flowers of both species are more or less similar. The fruits of* C. korupense*, sp. nov. are 10-18 cm long; the fruits of* C. staudtii *are 6-10 cm long.*

Typus. — **Cameroon.** Southwest Region, south of Mundemba, forest near village Besingi, about 1 km downstream of bridge over Idu river, on the south bank, 4°55'16"N, 8°54'04"E, alt. 50 m, young fruits, 12.III.2007, *van der Burgt & Motoh 922* (holo-, K [K000460356]; iso-, BR, G, MO, P, SCA, WAG, YA).

Paratypi. — **Cameroon**. Southwest Region, Korup National Park, south of P transect, 4°59'N, 8°49'E, alt. 100 m, sterile, 28.III.2004, *van der Burgt & Eyakwe 681* (WAG, YA); same loc., 5°0'N, 8°48'E, alt. 100 m, seedlings, 25.V.2007, *van der Burgt & Motoh 941* (BR, G, K, MO, P, SCA, WAG, YA); Korup National Park, P transect to Isangele Road, 4°58'N, 8°50'E, alt. 100 m, fr. & seedlings, 21.II.2008, *van der Burgt, Pearce, Poundje & Yombo 1126* (K, MO, P, WAG, YA); Near Besingi village, about 1 km downstream of bridge over Idu river, 4°55'16"N, 8°54'04"E, alt. 50 m, sterile, 14.IX.2006, *van der Burgt & Motoh 848* (K, MO, P, WAG, YA); same loc., fr., 20.V.2007, *van der Burgt & Motoh 931* (K, MO, WAG, YA); same loc., fr., 29.IV.2007, *Motoh* 1 (BR, K, MO, P, WAG, YA); same loc., seeds, 30.VII.2007, *Motoh 3* (K, YA); near Besingi village, about 1 km upstream of bridge over Idu river, 4°55'20"N, 8°54'37"E, alt. 50 m, 2.II.2010, *Motoh 6* (K, YA); Mount Cameroon, Mokoko forest above Bonja village, 4°28'N, 9°06'E, alt. 100 m, sterile, 24.III.1993, *Tchouto (Mbatchou) 621* (K, SCA); Mount Cameroon, Onge River, 4°18'N, 9°01'E, alt. 200 m, sterile, 10.X.1993, *Tchouto (Mbatchou) 773* (K, SCA); Mount Cameroon, Mokoko, 4°27'N, 9°04'E, alt. 300 m, sterile, 22.V.1994, *Thomas 10049* (SCA).

Distribution. — *Cryptosepalum korupense*, sp. nov. is endemic in the Southwest Region in Cameroon (Fig. 3). The species was found in southern Korup National Park, in the forest on the banks of the Idu River near the village Besingi, and in the lowland forest northwest of Mount Cameroon.
Three large plots have been made in southern Korup National Park; but *C. korupense*, sp. nov. was not found in any of these plots. These three plots are the plots "P", 82.5 ha and "NW", 56.25 ha (Newbery *et al.* 2013); and the plot "KFDP", 50 ha (Kenfack *et al.* 2006). The new species seems to be rare in southern Korup National Park (van der Burgt & Eyakwe 2010); which can also be concluded from the mapping of *Microberlinia bisulcata* trees. Three large groves of *M. bisulcata* have been mapped (one

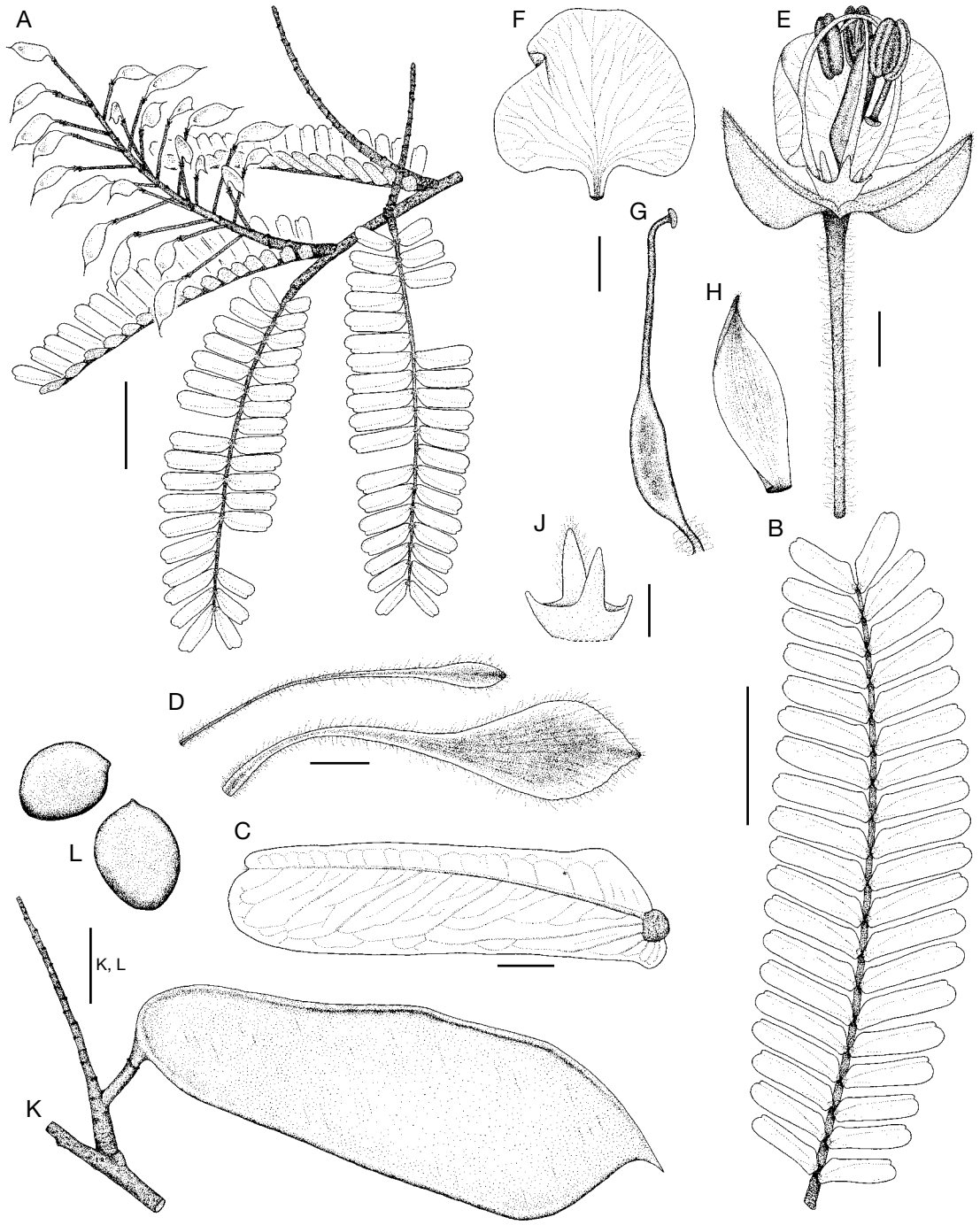

Fig. 2. — *Cryptosepalum korupense* Burgt, sp. nov.: **A**, twig and infructescences with very young fruits; **B**, leaf upper surface; **C**, leaflet lower surface; **D**, stipule from upper part of twig (above) and lower part of twig (below); **E**, flower; **F**, adaxial petal; **G**, gynoecium; **H**, flower bract; **J**, hypanthium and sepals; **K**, infructescence with fruit; **L**, seeds. **A**, from *van der Burgt 922*; **B**-**D**, from *van der Burgt 848*; **E-J**, from *Motoh 6*; **K**, from *van der Burgt 931*; **L**, from *Motoh 3*. Scale bars: A, B, 2 cm; C, E, F, G, H, 2 mm; D, 5 mm; J, 1 mm; K, L, 2 cm. Drawn by Xander van der Burgt.

Fig. 3. — Distribution of *Cryptosepalum korupense* Burgt, sp. nov.

grove only partly); the area of forest mapped in and close to these groves is *c.* 7.9 km² (Newbery & van der Burgt unpubl. data). Within this area no *C. korupense*, sp. nov. trees were found. In addition, *c.* 66 km of parallel transect lines at 500 m distance to each other were walked along in southern Korup (Newbery & van der Burgt, unpubl. data). Any mature *C. korupense*, sp. nov. tree standing at less than 25 m from these transects would likely have been found by way of the usually abundant seedlings at this distance. This amounts to another 3.3 km² of forest mapped. Within this area three small groves were found; one group of 14 *C. korupense*, sp. nov. trees over 10 cm trunk diameter (Fig. 4) and two small groups of two trees each. The total amount of forest mapped is *c.* 11.2 km²; within this area 18 *C. korupense*, sp. nov. trees over 10 cm trunk diameter were found. Of all trees over 50 cm trunk diameter in southern Korup National Park, one tree out of *c.* 3100 trees is *C. korupense*, sp. nov. However, because these surveys were based on seedlings, mature trees which produced few or no seedlings in the years before these surveys, as well as immature trees, may have been overlooked.

In the forests near Besingi village ten *Cryptosepalum korupense*, sp. nov. trees with trunk diameters of 20-60 cm were recorded. All trees were found on the banks of the Idu River. This river is bordered by an oil palm plantation on one side and by a mosaic of subsistence farms and secondary forest on the other side. Along the river a strip of forest rich in rare forest species remains. This forest strip is a remnant of a once more continuous forest and has not been converted to farmland because of the often steep and rocky banks and variable water level.

Habitat. — Rainforest on well-drained soil; 50-300 m.

Etymology. — Named for Korup National Park where the species was first found.

Seed dispersal. — Trees of *Cryptosepalum korupense*, sp. nov. appear to grow in small groups. The only group that could be mapped completely had 14 trees over 10 cm trunk diameter (Fig. 4). Several other species of Caesalpinioideae are present within this group, as well as many trees from other families. The seeds of *C. korupense*, sp. nov. are dispersed by way of ballistic seed dispersal. The maximum ballistic dispersal distance is unknown but it is probably in the range of 50-70 m. This estimate is based on van der Burgt (1997) and on later observations by the first author on other Caesalpinioideae taxa with similar pod and seed size and thickness, and therefore presumably similar maximum dispersal distance. The tendency of trees of this species to grow in groups (Fig. 4) is probably related to the relatively short and strictly limited maximum dispersal distance of the ballistic seed dispersal method.

Conservation status

Cryptosepalum korupense, sp. nov. is assessed here as Endangered, B1ab(iii;v) C1 D, under the criteria of IUCN (2013). The extent of occurrence of *C. korupense*, sp. nov. is 802 km². The forests in the area between the known localities are severely fragmented. Outside Korup National Park, which is a protected area, there is continuing decline in quality of habitat and in the number of mature individuals, due to subsistence farming and the establishment of oil palm plantations. These facts lead to Endangered under IUCN criterion B1 (IUCN 2013).

In total 28 trees have been recorded in two of the three localities (one locality, the lowland forests northwest of Mount Cameroon, was not visited but taken from herbarium sheets). Assuming that trees become mature at 30 cm trunk diameter, 20 of the 28 trees are mature. Much forest in the Southwest region remains unexplored for this species; therefore the number of mature trees is expected to be more than 50. However, in southern Korup National Park the species is very rare (see the paragraph on distribution); therefore the number of mature trees may be less than 250, is leading also to Endangered, under IUCN criterion D.

The estimated number of mature trees, combined with the estimated decline of the species of at least

20% over two generations (which may be over 100 years), due to subsistence farming and the establishment of oil palm plantations, is leading also to Endangered, under IUCN criterion C1.

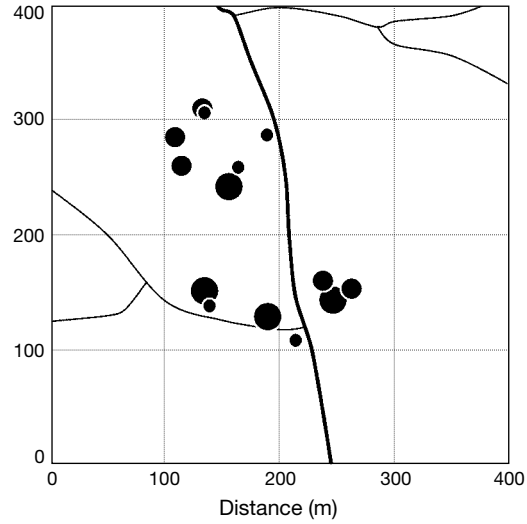

Fig. 4. — Distribution of 14 trees of *Cryptosepalum korupense* Burgt, sp. nov., in primary rainforest in Korup National Park. The size of a dot represents the trunk diameter at 1.3 m in three size classes: 10-30, 30-50 and 50-70 cm. The lines represent small streams. All trees grow on well-drained soil.

Description

Tree to 44 m high, trunk to 88 cm diameter at 1.3 m high, bole cylindrical to somewhat irregular in large trees, bark light grey-brown, smooth. Twigs densely tomentose to glabrescent, hairs curly, 0.3-0.7 mm long. Bud scales 14-18, caducous, distichous, not keeled, parallel-veined; proximal scale 1 mm long × 3 mm wide, distal scales progressively larger and relatively longer, to 40 × 18 mm, oblanceolate, bright dark pink; both surfaces sparsely hairy with hairs to 0.1 mm, margins with hairs to 1 mm. Stipules in pairs, free, caducous, parallel-veined, long-petioloid, oblanceolate, 20-40 × 1-10 mm; apex acute; indumentum similar to bud scales. Leaves alternate, paripinnate, (5.5-)7-11(-12) × (2-)2.5-3.2 cm; petiole 3-5 mm, without glands; rachis (4-)5.5-9.5(-11) cm long, densely tomentose, hairs curly, 0.3-0.7 mm long; upper and middle leaflet pairs opposite, lower pairs subopposite. Leaflets sessile, in (10-)14-21(-26) pairs; narrowly oblong, to 13-15 × 4-5 mm, base and apex asymmetric, apex emarginate; midvein dividing the leaflet into two unequal parts; at the base of the leaflet the proximal part (the part closest to the twig) is as wide as the distal part (the part furthest from the twig); near the apex of the leaflet the proximal part is 3-4 × wider than the distal part; leaflets glabrous both sides, caducous fringing hairs to 0.5 mm long, a few persistent hairs to 0.2 mm long on apex of midvein; glands 0-2, one gland positioned on distal part of leaflet, near the base and about midway between the midvein and the margin, on lowest leaflets also a gland on proximal part of leaflet. Inflorescence a raceme, axillary, one per node, 20-25-flowered, 5-7.5 cm long including a peduncle *c.* 2 cm long; densely tomentose, hairs curly, 0.3-0.7 mm long.

Flowers

Floral bract inserted at base of pedicel, caducous, lanceolate, *c.* 8 × 3 mm, indumentum similar to bud scales; pedicel 10-14 mm long, indumentum similar to inflorescence axis; bracteoles inserted at apex of pedicel, white, opposite, ovate, valvate, 6 × 5 mm, keeled, apex acute, mostly glabrous outside, short hairs outside near apex, on edge and inside; hypanthium campanulate, *c.* 0.8 mm deep, glabrous. Sepals 4, white, lanceolate; adaxial sepal 1-2 × 0.3-0.6 mm, sometimes bilobed, margins hairy; lateral sepals 0.2-1 × 0.3-0.4 mm; abaxial sepal 0.5-2 × 0.3-0.5 mm. Adaxial petal white, glabrous, 6-7 mm long, 8 mm wide, claw 1 mm long; other petals absent. Stamens 3, filaments 8-9 mm long, glabrous, anthers oblong-elliptic, *c.* 2.2 × 1.5 mm. Staminodes 2-6, to 3 mm long. Ovary oblong, stipitate, 4.5 × 1.5 mm, glabrous, ovules 2-4; stipe 1-1.5 mm long, curled hairs to 1.5 mm long, placed on the sides; style 6-7 mm long, glabrous, stigma capitate. Pod oblong to obovate, glabrous, lacking surface sculpture; broadest towards apex, 10-18 × 3.5-5.5 × 0.3-0.8 cm, beak 3-8 mm long; upper suture broadened, to 3 mm wide per valve; containing 0-4 seeds. Seeds discoid, 22-28 × 16-22 × 4-5 mm. Seedling: hypocotyl 7.5-9.5 cm, epicotyl 2-3.5 cm, first pair of leaves opposite, leaves (6-)7.5-10.5 × 2.5-3.5 cm, leaf rachis 6-10 cm, leaflets in (14-)16-22 pairs, to 18 × 6 mm.

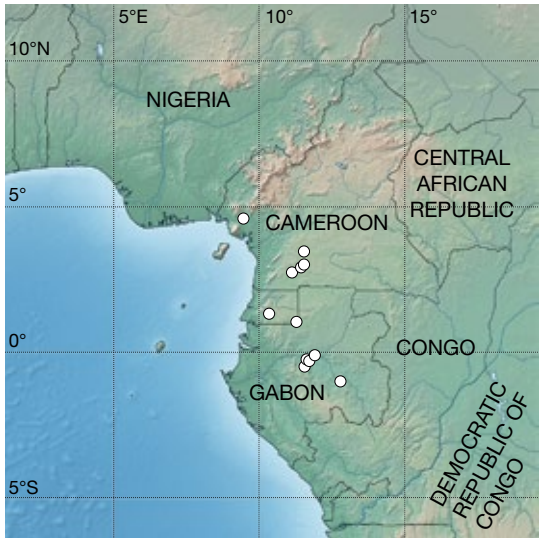

Fig. 5. — Distribution of *Cryptosepalum staudtii* Harms.

Identification notes

The small, emarginate leaflets of *Cryptosepalum korupense*, sp. nov. have a unique character distinguishing them from all other West and Central African Caesalpinioideae species. The midvein divides the leaflet into two unequal parts; near the apex of the leaflet, the proximal part (the part closest to the twig; see Wieringa 1999: 40) is 3-4 × wider than the distal part (the part furthest from the twig). In other African Caesalpinioideae species with small, emarginate leaflets the proximal part of the leaflet near the apex is only 1-2 × wider than the distal part. This character can be used to distinguish *C. korupense*, sp. nov. from other species of Caesalpinioideae with small, emarginate leaflets; for example *C. staudtii*, *Didelotia brevipaniculata* J.Léonard, *Microberlinia bisulcata* and *Plagiosiphon emarginatus*. Flowering specimens of these species are easy to distinguish from *C. korupense*, sp. nov. (see Aubréville 1970).

Cryptosepalum korupense, sp. nov. can be easily distinguished from the other tree species of *Cryptosepalum*, because the leaves have more pairs of leaflets than any of the other tree species: (10-)14-21(-26) pairs. *Cryptosepalum staudtii* has 10-14(-16) pairs of leaflets; the other tree species are unifoliolate, bifoliolate or tetrafoliolate.

Cryptosepalum staudtii Harms (Fig. 5)

Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 26: 267 (1899). — Typus: **Cameroon.** Southwest Region, Johann Albrechtshöhe (Lake Barombi-Mbo near Kumba), young fruits, III.1897, *Staudt 907* (A, BM, K, PH).

Other material examined. — **Nigeria.** *Sine loc.*, 1930, *Rosevear* s.n. (K). — **Cameroon.** Mbalmayo, fr., 5.X.1951, *Endagade SRFK 1515* (YA); route Mbalmayo-Ebolowa, fr., 11.IV.1949, *Letouzey SRFK 1248* (P[P00187937], YA); same loc., sterile, 11.IV.1949, *Letouzey SRFK 1249* (P[P00187938], YA); km 78 route Mbalmayo-Ebolowa, fr., 25.VIII.1950, *Letouzey SRFK 1442* (P[P03641255], YA); colline au SE de Ndengué, 15 km S d'Ebolowa, sterile, 26.III.1970, *Letouzey 10244* (P[P00187943], YA); près Bitsokmam-Eyou, à 12 km E de Ngoulemakong, sterile, 13.VI.1972, *Letouzey 11419* (P[P00187931], YA); 3 km environ de la scierie Sieba, au fond du SSO près Mbalmayo, sterile, 27.II.1953, *Médou SRFK 1831* (P[P00187940], YA); près carrefour de Mengong sur route Sangmélima-Ebolowa, sterile, 26.III.1981, *Meijer 15293* (MO, WAG, YA); Mbalmayo, fr., 1952, *Mpom SRFK 1674* (YA); same loc., fl., fr., 1952, *Mpom 1793* (P[P00187934, P03641272], YA); N'Koemvone, 14 km on the road from Ebolowa to Ambam, 2°49'N, 11°08'E, fl., 17.XI.1975, *J. de Wilde 7968* (BR, K, P[P00187930], WAG, YA). — **Equatorial Guinea.** Inselberg de Akoak Ebanga, à 1 h de marche du village de Ngong Mocomo, à 10 km de Nsork, 1°04'N, 11°12'E, alt. 580 m, 7.VIII.1990, *Parmentier & Nguema 30* (BRLU; not seen); Makonanam, alt. 450 m, 25.III.1908, *Tessmann 307* (K). — **Gabon.** Ogooué-Ivindo, Lopé Reserve, Petit Okano, pont de la Nké, 0°02'S, 11°53'E, fl., 10.X.1983, *Floret & Louis 1797* (LBV, P[P00388094], WAG); Ogooué-Lolo, Région de Lastoursville, fl., 1929-1931, *Le Testu 7501* (K, P[P03641252, P03641253, P03641254]); Ogooué-Ivindo, Lopé Reserve, 500 m further downstream where the Koumbien meets the Lopé river, 0°7'S, 11°37'E, fl., 25.III.1998, *Leal 49* (WAG); Lopé Reserve, 0°25'S, 11°30'E, alt. 200 m, fl., 25.IX.1990, *White 130* (LBV, MO, WAG); Lopé Reserve, headquarters of ECOFAC, 0°15'S, 11°40'E, alt. 200 m, fl., 21.IX.1993, *White 1062* (LBV, MO, SEGC, WAG); Lopé Reserve, near biological station SECG, 0°12'S, 11°37'E, alt. 280 m, fr., 25.XI.1995, *J. de Wilde 11437* (LBV, WAG); Lopé Reserve, 11 km SSE de gare Lopé, 0°12'S, 11°38'E, sterile, 26.X.1987, *Wilks 1645* (MO, WAG); Lopé Reserve, sterile, 1985, *Williamson 61* (K).

Description. — See Aubréville (1968, 1970); Vivien & Faure (2011).

DISTRIBUTION. — *Cryptosepalum staudtii* occurs in Nigeria (possibly), Cameroon, Equatorial Guinea and Gabon (Fig. 5). The exact locality where the only Nigerian specimen, *Rosevear s.n.*, was collected is uncertain; this could be Nigeria or the Southwest Region in Cameroon. The species is common around the towns of Mbalmayo and Ebolowa in Cameroon, and in the Lopé Reserve in Gabon (White & Abernethy 1996).

HABITAT. — Rainforest and gallery forest, 200-700 m.

CONSERVATION STATUS

Cryptosepalum staudtii is here assessed as Least Concern (IUCN 2013), because it occurs in three or four countries and is known from at least 23 collections. The extent of occurrence is 94 900 km².

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