

Notes on African *Combretum* Loeffl. species (Combretaceae)

Carel C. H. JONGKIND

Botanic Garden Meise, Bouchout Domain,
Nieuwelaan 38, BE-1860 Meise (Belgium)
carel.jongkind@kpnmail.nl

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ABSTRACT

A new species, new combinations, synonyms, lectotypes and neotypes for *Combretum* Loeffl. (Combretaceae) from continental African and Madagascar are published. Especially the lumping of *Combretum platypetalum* Welw. ex M.A.Lawson with the older *Combretum sericeum* G.Don is an important change. *Combretum gordonii* Jongkind, sp. nov. is newly described, no *Combretum* species with densely hairy and more or less auriculate leaves in combination with infundibuliform flowers was known yet from Madagascar. The new combinations *C. comosum* G.Don var. *dolichopetalum* (Engler & Diels) Jongkind, comb. nov. and *C. comosum* var. *hispidum* (M.A.Lawson) Jongkind, comb. nov. are made because the intermediate specimens between the former species did make it untenable to maintain these taxa on species level.

RÉSUMÉ

Notes sur les espèces de Combretum Loeffl. (Combretaceae) d'Afrique.

Une espèce, des combinaisons, synonymes, lectotypes et néotypes nouveaux pour les *Combretum* Loeffl. (Combretaceae) d'Afrique continentale et de Madagascar sont publiés ici. Le changement le plus important est l'inclusion de *Combretum platypetalum* Welw. ex M.A. Lawson dans l'ancien *C. sericeum* G.Don. L'espèce nouvelle *Combretum gordonii* Jongkind, sp. nov. est décrite, aucune espèce combinant un trichome dense, des feuilles plus ou moins auriculées et des fleurs en entonnoir n'était jusqu'alors connue de Madagascar. Les combinaisons nouvelles *C. comosum* G.Don var. *dolichopetalum* (Engler & Diels) Jongkind, comb. nov. et *C. comosum* G.Don var. *hispidum* (M.A. Lawson) Jongkind, comb. nov. sont effectuées, l'existence de spécimens intermédiaires entre les espèces basionymes rendant insoutenable le maintien de ces taxons au rang spécifique.

KEY WORDS

Combretum,
plant distribution,
Africa,
Madagascar,
lectotypification,
new combinations,
new synonyms,
new species.

MOTS CLÉS

Combretum,
répartition des plantes,
Afrique,
Madagascar,
lectotypification,
combinaisons nouvelles,
synonymes nouveaux,
espèce nouvelle.

INTRODUCTION

This publication validates two new combinations in *Combretum* Loeffl., *C. comosum* G. Don var. *dolichopetalum* (Engler & Diels) Jongkind comb. nov. and *C. comosum* var. *hispidum* (M.A. Lawson) Jongkind comb. nov., names already used in the *Flore du Bénin* (2006: 484, 485). The *Combretum* species *C. comosum*, *C. hispidum* M.A. Lawson and *C. rhodanthum* Engler & Diels, seen by Key in the *Flora of West Tropical Africa* (1954: 273) still as separate species, have been united by me in the *Flore du Gabon* (1999: 26) under the name of *C. comosum*. Here *C. dolichopetalum* Engler & Diels is included in this species as well. More than a few specimens from western Africa show intermediate characters and this makes it very difficult to maintain these taxa on species level. Because they have different geographical distributions and ecological preferences it is thought useful to name them officially as varieties. Tens of collections from all the former species that are here included in *C. comosum* s.l., were studied.

One new species, *Combretum gordonii* sp. nov. from Madagascar, is published here. There was no other *Combretum* species known yet with such densely hairy and more or less auriculate leaves in the combination with infundibuliform flowers.

A selection of other short taxonomical notes on *Combretum* species, that did build up during the years the African species of the genus were studied by the author, are published here too. In several herbaria lectotypes or neotypes have been selected to replace type specimens that were destroyed in Berlin in 1943. The publication of these lectotypes and neotypes is more urgent now as many of them, already labelled as lectotype or neotype for some years, are easily accessible on the internet.

For several species a detailed geographical distribution is published here for the first time. The distribution maps have been prepared on base of the combined herbarium specimens from several herbaria. On the maps of *C. glutinosum*, *C. sericeum* and *C. umbricolum* can be seen where the specimens that were earlier cited under the new synonyms of these species fit in the distribution area.

SYSTEMATICS

Genus *Combretum* Loeffl.

Subgenus *Combretum* Loeffl.

Section *Chionanthoidea* Engl. & Diels.

Combretum gordonii Jongkind, sp. nov.
(Fig. 1)

Liana magna. Folia opposita, lamina elliptica usque ad obovata, pilosa; basi auriculata usque ad cordata. Inflorescentia axillaris; flores tetrameri, sessiles; receptaculum superius infundibuliforme, lobi calycis deltoidei; petala obovata, glabra, alba; stylus exsertus glaber.

TYPUS. — Madagascar. Manongarivo Massif, above village of Ambodisakoana, East of Ankaramy, 14°05'S 48°20'E, fl., 20.X.1994, G. McPherson and H. van der Werff 16426 (holo-, MO).

DESCRIPTION

Woody climber. Leaves opposite, 4-9 × 2.5-7 cm; petiole up to 5 mm long, velutinous; blade elliptic to obovate, beneath velutinous, conspicuously reticulate and with many small colourless to pale brown scales, scales roughly circular 65-80 µm in diameter, divided by c. 8 radial walls, blade above shiny, midrib and main lateral nerves densely hairy but with few hairs on the blade in between, 7 to 10 pairs of main lateral nerves; base cordate to auriculate; apex rounded to emarginate and apiculate. Inflorescence an axillary spike, up to 6 cm long, axes velutinous. Flowers sessile, white; receptacle 5 mm high and 2.5 mm in diameter, lower receptacle c. 1 mm high, upper receptacle infundibuliform, calyx lobes triangular. Petals 2 × 1 mm, obovate, glabrous. Style c. 5 mm exserted, glabrous. Stamens c. 4 mm exserted; anthers c. 0.3 mm long. Fruits unknown.

HABITAT AND DISTRIBUTION

Only known from the forest on the type locality in the NW of Madagascar.

Combretum comosum G. Don (Table 1)

Large liana. Lower part of petiole often changing into a woody hook. Flowers 5-merous, partly reddish, petals glabrous except for a fringe of many tiny glandular hairs, flower-bract for a short distance fused with the peduncle of the flower. Fruits with 5 thinly papery wings.

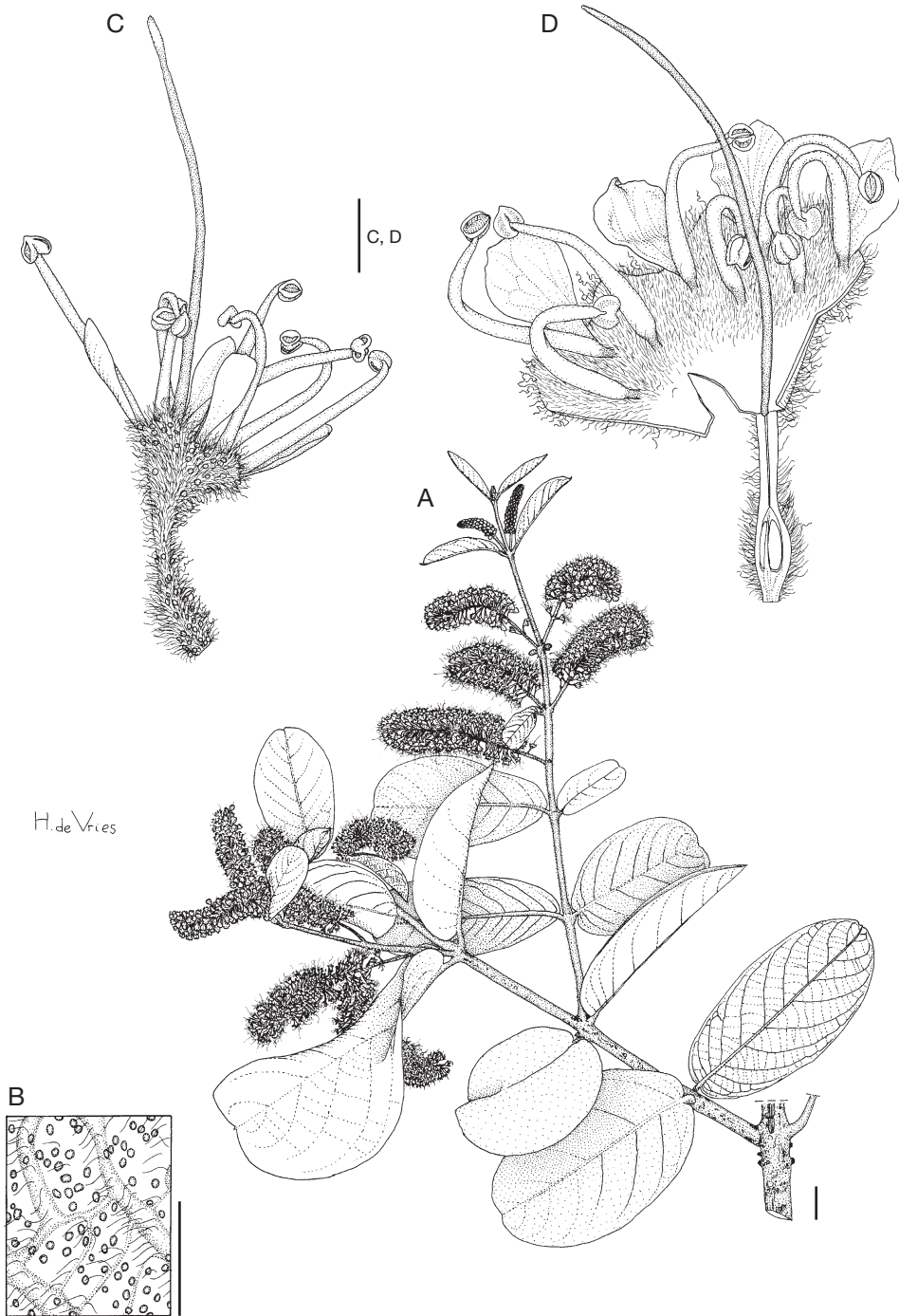


FIG. 1. — *Combretum gordonii* Jongkind, sp. nov.: **A**, branch with flowers; **B**, scales on the lower side of the leaf; **C**, flower; **D**, flower opened. After McPherson & van der Werff 16426. Drawn by Hans de Vries. Scale bars: A, 1 cm; B-D, 1 mm.

TABLE 1. — Principal differences between *C. comosum* G. Don var. *comosum*, var. *dolichopetalum* (Engler & Diels) Jongkind comb. nov. and var. *hispidum* (M.A. Lawson) Jongkind comb. nov.

	var. <i>comosum</i>	var. <i>dolichopetalum</i>	var. <i>hispidum</i>
glandular hairs	almost absent	almost absent	abundant glandular hairs on all young parts of the plant
shape of the inflorescence bracts	narrow	large and almost hiding the flower-buds	narrow
petals	red to pinkish	pinkish	pinkish

DISTRIBUTION. — Guinea to Uganda and Angola.

Combretum comosum G. Don var. *comosum*

Edinburgh Philosophical Journal 11: 344 (1824); Keay, *Flora of West Tropical Africa* 1: 273 (1954); Jongkind, *Flore du Gabon* 35: 26 (1999). — Type: Sierra Leone, s.l., fl., fr., 1822, *Don 24* (holo-, BM; iso-, BR, K, MO).

DISTRIBUTION. — Sierra Leone to Ghana.

Combretum comosum G. Don
var. *dolichopetalum* (Engler & Diels)
Jongkind, comb. nov.

Flore Analytique du Bénin: 484 (2006).

Combretum dolichopetalum Engler & Diels, *Monographien afrikanischer Pflanzen Familien und Gattungen* 3: 91 (1899); Keay, *Flora of West Tropical Africa* 1: 273 (1954); Liben, *Flore du Cameroun* 25: 30, table 8 (1983). — Types: Sierra Leone, s.l., fl., fr., *Afzelius s.n.* (syn-, B, destroyed); Nigeria, Lagos, fl., *Rowland s.n.* (syn-, B, destroyed; iso-, K); Cameroun, Cross R., fl., fr., *Johnston s.n.* (syn-, B, destroyed; iso-, K); Nigeria, Old Calabar, fl., fr., II.1863, *Mann 2296* (syn-, B, destroyed; lecto-, P[P00391753], designated here; iso-, K).

DISTRIBUTION. — Sierra Leone to Cameroun.

Combretum comosum G. Don var. *hispidum*
(M.A. Lawson) Jongkind, comb. nov.

Flore Analytique du Bénin: 485 (2006).

Combretum hispidum M.A. Lawson, *Flora of Tropical Africa* 2: 421 (1871); Engler & Diels, *Monographien afrikanischer Pflanzen Familien und Gattungen* 3: 91 (1899); Keay, *Flora of West Tropical Africa* 1: 274 (1954);

Liben, *Flore du Congo, du Rwanda et du Burundi*, Combretaceae: 33 (1968); Exell & Garcia, *Conspectus Florae Angolensis* 4: 78 (1970); Liben, *Flore du Cameroun* 25: 33 (1983). — Type: Gabon/Eq. Guinea, Muni R, fl., VIII.1862, *Mann 1760* (holo-, K; iso-, P[P00391746, P00391747]).

DISTRIBUTION. — Guinea to Uganda and Angola.

Combretum albopunctatum Suessenguth

Mitteilungen der Botanischen Staatssammlung München 1: 336 (1953); Exell, *Prodromus einer Flora um Südwestafrika*, Family 99: 7 (1966); *Flora Zambesiaca* 4: 126, table 35 (1978). — Types: Namibia, near Popafällen, fr., *Volk 2105* (lecto-, M, designated here); Amboland, Bagani, fr., 22.V.1939, *Volk 2119* (syn-, M, PRE).

Combretum carringtonianum Exell & Garcia
(Fig. 2; 3)

Two flowering specimens collected in 1994 in Kigoma distr. in Tanzania, *Bidgood, Mbago & Vollesen 2772 & 2858*, represent a new species for the tropical East Africa Flora region. The plants most likely belong to *C. carringtoniana* but the characteristic fruits are not collected yet to confirm this identity.

Combretum exalatum Engler
(Fig. 4)

Pflanzenwelt Ost-Afrikas und der Nachbargebiete: 290 (1895); Engler & Diels, *Monographien afrikanischer Pflanzen Familien und Gattungen* 3: 81, table 24g (1899); Wickens, *Flora of East Tropical Africa*, Combretaceae: 48 (1973); Thulin, *Flora of Somalia* 1: 249 (1993). — Type: Tanzania, Maschewa, fr., VII.1893, *Holst 3559* (lecto-, B, designated by Engler & Diels [1899], destroyed; lecto-, E, designated here; iso-, EA; fragm.: BM, K).

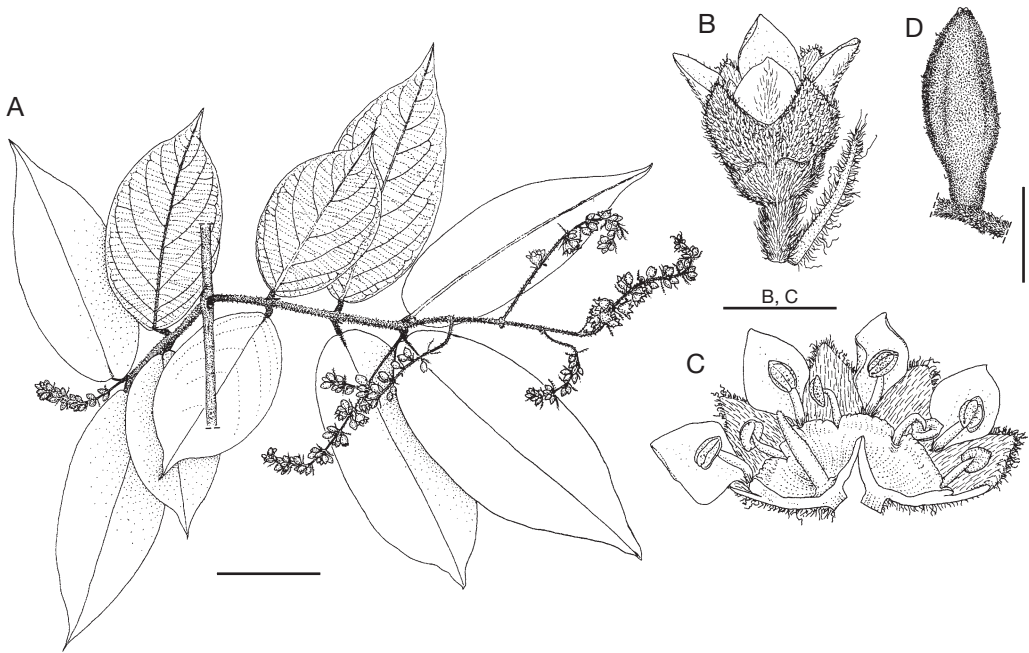


FIG. 2. — *Combretum carringtonianum* Exell & Garcia: **A**, branch with flowers; **B**, flower; **C**, open flower; **D**, flower bud. After Bidgood et al. 2772. Drawn by Hans de Vries. Scale bars: A, 3 cm; B, C, 3 mm; D, 1 cm.

Combretum taitense Engler & Diels *Monographien afrikanischer Pflanzen Familien und Gattungen* 3: 80, table 24h (1899). — Types: Kenya, N'di, fr., II.1877, *Hildebrandt* 2561 (syn-, B, destroyed; lecto-, BM, designated here; iso-, K); s.l., fl., *Scott Elliot* 6743 (syn-, B, destroyed; iso-, BM, K).

Combretum didymostachys Engler & Diels, *Engler's Botanische Jahrbücher* 39: 492 (1907). — Type: Kenya, Samburu, fl., 27.III.1902, *Kässner* 490 (holo-, B, destroyed; lecto-, Z, designated here; iso-, BM, K).

Combretum tavetense Engler, *Engler's Botanische Jahrbücher* 39: 492 (1907). — Types: Tanzania, between Sadani and Kwagoge, fr., *Engler* 1624 (syn-, B, destroyed); fr., *Engler* 1653 (syn-, B, destroyed); near Taveta, fl., *Engler* 1901 (syn-, B, destroyed; fragm.: BM), between Sengina and Simba, fl., 13.XII.1901, *Uhlig* 867 (lecto-, B, designated here; iso-, EA).

NOTE

The original syntypes of *C. tavetense* in the herbarium of Berlin are destroyed, but of one of these types, *Uhlig* 867, a small flowering branch was kept in the herbarium of A. Peter and survived the 1943 catastrophe.

Combretum exannulatum (O.Hoffmann) Engler & Diels

Monographien afrikanischer Pflanzen Familien und Gattungen 3: 88, table 25f (1899).

Cacoucia exannulata O.Hoffmann, *Linnaea* 43: 132 (1881).

Quisqualis exannulata (O.Hoffmann) Exell, *Journal of Botany* 69: 121 (1931); Liben, *Flore du Congo, du Rwanda et du Burundi*, Combretaceae: 84 (1968); Exell & Garcia, *Conspectus Florae Angolensis* 4: 85 (1970). — Type: Angola, Cuanza Norte, Cacuso, Pungo Andongo, fl., 1879, *Mechow* 100 (holo-, B, destroyed; lecto-, BR, designated here; iso-, Z).

Combretum gillettianum Liben (Fig. 5)

Bulletin du Jardin botanique national de l'État à Bruxelles 35 (2): 177 (1965); Wickens, *Flora of East Tropical Africa*, Combretaceae: 22 (1973); Exell, *Flora Zambesiaca* 4: 116 (1978).

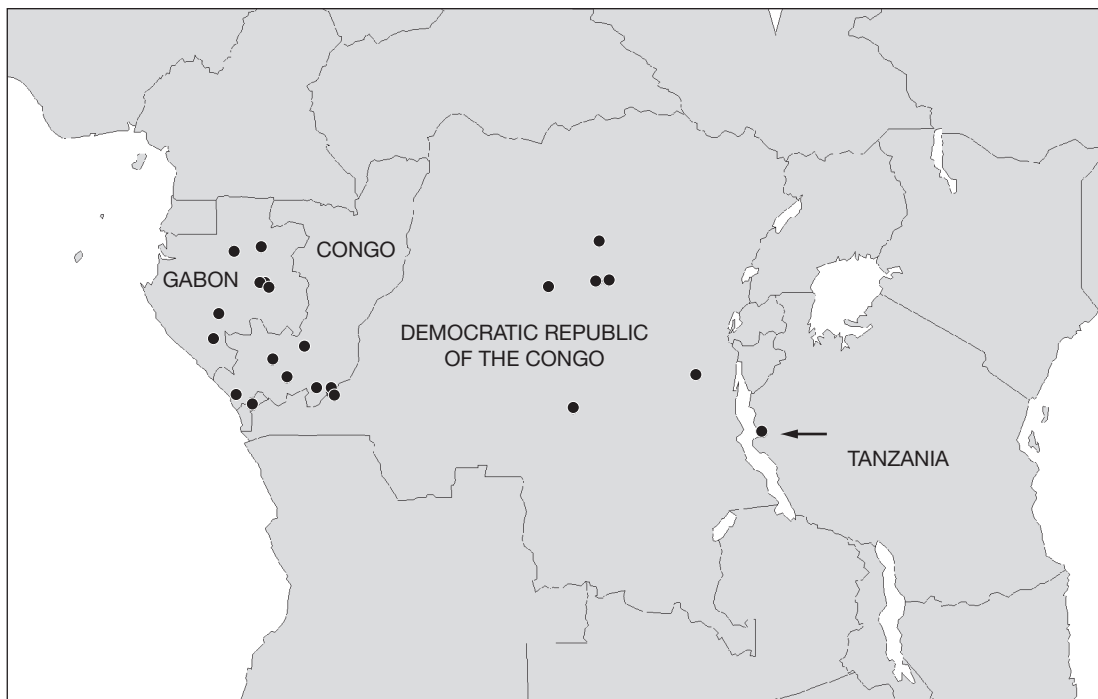


FIG. 3. — Distribution map of *Combretum carringtonianum* Exell & Garcia, arrow pointing at new Tanzanian location.

MATERIAL EXAMINED. — **Tanzania.** Sumbawanga, 7°58'S, 31°36'E, *Richards 10166* (K); Kasanga, 8°27'S, 31°10'E, *Richards 11813* (K); Kasanga-Matai road, 8°27'S, 31°09'E, *Schmidt et al. 1228* (MO, WAG).

Zambia. 1.6 km E of Mpulungu, *Angus 773a* (BM, FHO, K); Yendwe R. valley escarpment, 8°40'S, 30°42'E, *Fanshawe F 5619* (BR, FHO, K); Kalambo Falls, 8°35'S, 31°13'E, *Proctor 1864* (K); Kambole escarpment, c. 8°50'S, 30°50'E, *Richards 15260* (K); Kalambo Falls, *Sanana 1452* (K, WAG); Mpulungu, *White 3679* (BM, BR, FHO, K).

DESCRIPTION

Shrub or tree up to 18 m tall growing in *Brachystegia* woodland and deciduous thicket from 800 m up to 1300 m altitude.

NOTE

Selected specimens representing the collecting localities on the map.

After re-examination in several herbaria of all material called *C. gillettianum* it became clear that this species has an even more limited geographical

distribution than thought before. The material cited by Liben (1968: 70) as *C. gillettianum* does not belong to this species but to *C. acutifolium* Exell. The real *C. gillettianum* is only found in a small area around the southern end of Lake Tanganyika, this area is divided in two by the border between Tanzania and Zambia (Fig. 5).

Combretum glutinosum

Perrottet ex De Candolle

(Fig. 6)

Prodromus 3: 21 (1828); Engler & Diels, *Monographien afrikanischer Pflanzen Familien und Gattungen* 3: 49 (1899); Andrews *Flowering Plants of Anglo-Egyptian Sudan* 1: 201 (1950); Keay, *Flora of West Tropical Africa* 1: 271 (1954); Liben, *Flore du Cameroun* 25: 24 (1983).

Combretum schweinfurthii Engler & Diels, *Monographien afrikanischer Pflanzen Familien und Gattungen* 3: 50, table 14e (1899); Andrews, *Flowering plants of Anglo-*

FIG. 4. — Distribution map of *Combretum exalatum* Engler.

Egyptian Sudan 1: 203 (1950); Liben, *Flore du Congo, du Rwanda et du Burundi*, Combretaceae: 74 (1968); Wickens, *Flora of East Tropical Africa*, Combretaceae: 48 (1973), syn. nov. — Types: Sudan, Gumango Hill, fr., Schweinfurth 2886 (syn-, B, destroyed; iso-, K); Ngoli's village, fr., 24.I.1870, Schweinfurth 2903 (syn-, B, destroyed; lecto-, K, designated here).

NOTE

No important differences between *C. glutinosum* and *C. schweinfurthii* could be found. Today we know that *C. glutinosum* is more variable than thought by Engler & Diels (1899) and Andrews (1950), who did still see *C. schweinfurthii* as a separate species. Verticillate and alternate leaves, a key character used by Engler & Diels to separate the two species, can be found in *C. glutinosum* both on one single plant. The leaves of the type material of *C. schweinfurthii* are comparatively old and are not as easy to recognise as belonging to *C. glutinosum* as recently matured leaves. The inclusion of *C. schweinfurthii* in *C. glutinosum* does extend the distribution of

C. glutinosum more to the east as can be seen on the map of the species (Fig. 6).

Combretum hensii Engler & Diels

Monographien afrikanischer Pflanzen Familien und Gattungen 3: 85 (1899), table 25a; Exell & Garcia, *Conspectus Florae Angolensis* 4: 80 (1970).

Quisqualis hensii (Engl. & Diels) Exell, *Journal of Botany* 69: 120 (1931); Liben, *Flore du Congo, du Rwanda et du Burundi*, Combretaceae: 82 (1968). — Type: Congo-Kinshasa, Stanley Pool, fl., 19.VIII.1888, *Hens* 36 (lecto-, B, destroyed (designated by Exell [1931])); lecto-, BR, designated here; iso-, BM, K, L, P[P00391797, P00391798], Z).

Combretum poggei Engler & Diels, *Monographien afrikanischer Pflanzen Familien und Gattungen* 3: 85, table 25b (1899). — Type: Congo-Kinshasa, near Mukenge, fl., fr., *Pogge* 920 (lecto-, B, destroyed [designated by Exell (1931)]; lecto-, K, designated here).



FIG. 5. — Distribution map of *Combreton gillettianum* Liben.

***Combreton illairii* Engler**

Abhandlungen der Königlichen Preussischen Akademie der Wissenschaften zu Berlin: 15 (1894); Engler & Diels *Monographien afrikanischer Pflanzen Familien und Gattungen* 3: 80, table 24d (1899); Wickens, *Flora of East Tropical Africa*, Combretaceae: 43 (1973); Exell, *Flora Zambesiaca* 4: 146 (1978); Thulin, *Flora of Somalia* 1: 249 (1993). — Types: Tanzania, Moa, fr., VI.1893, *Holst* 3078 (holo-, B, alc.; iso-, EA, HBG, K). The herbarium sheet(s) of the type specimen in Berlin have been destroyed but the fruits on spirit did survive.

Combreton meruense Engler, *Pflanzenwelt Ost-Afrikas und der Nachbargebiete*: 291 (1895); Engler & Diels, *Monographien afrikanischer Pflanzen Familien und Gattungen* 3: 20, table 6b (1899). — Type: Tanzania, Handeni Distr., Merue, fl., *Fischer* 260 (syn-, B, destroyed; fragm.: BM); Tanga Distr., Misoswe, fl.,

II.1893, *Holst* 2221 (syn-, B, destroyed; lecto-, K, designated here; iso-, HBG).

Combreton schliebenii Exell & Mildbraed, *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 14: 106 (1938). — Type: Tanzania, 50 km W of Lindi, fl., 4.V.1935, *Schlieben* 6480 (holo-, B, destroyed; lecto-, B, designated here; iso-, BM, BR, G, HBG, M, P[P00391804], Z).

***Combreton imberbe* Wawra**

Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftlichen Classe 38: 556 (1860); Exell, *Prodromus einer Flora um Sudwestafrika*, Family 99: 9 (1966); Exell & Garcia, *Conspectus Florae Angolensis* 4: 52 (1970); Wickens, *Flora of East*

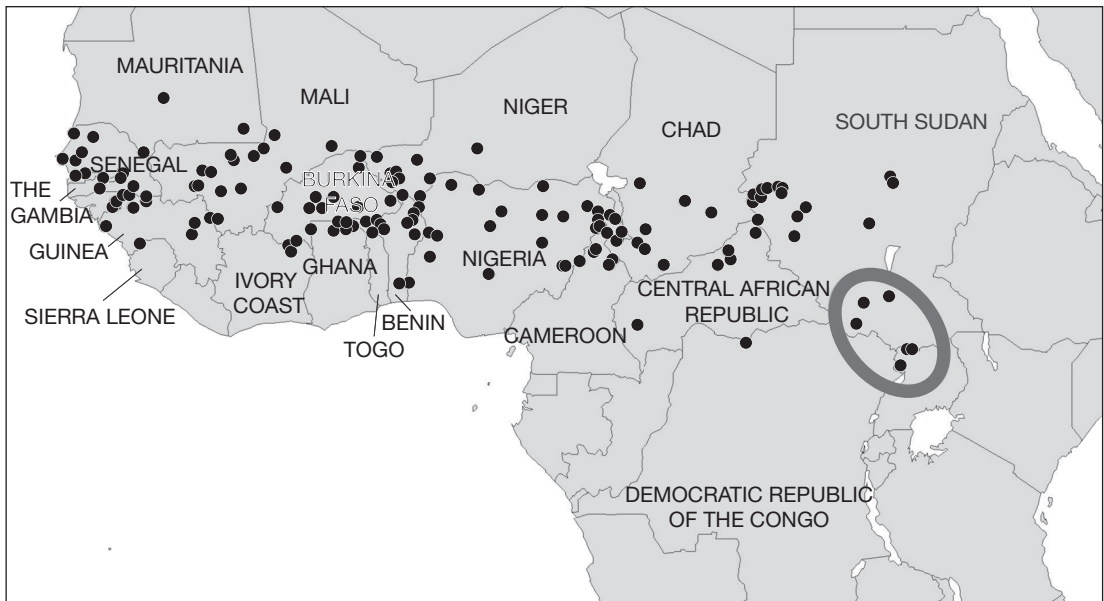


FIG. 6. — Distribution map of *Combretum glutinosum* Perrottet ex De Candolle showing the specimens formerly assigned to *Combretum schweinfurthii* Engler & Diels (encircled).

Tropical Africa, Combretaceae: 18 (1973); Exell, *Flora Zambesiaca* 4: 109 (1978).

Combretum primigenum Marloth ex Engler, *Engler's Botanische Jahrbücher* 10: 49 (1889); Engler & Diels, *Monographien afrikanischer Pflanzen Familien und Gattungen* 3: 15, table 3c (1899). — Type: Namibia, Usakos, Kan R, fr., 1886, *Marloth 1264* (holo-, B, destroyed; lecto-, M, designated here; iso-, FHO, K).

Argyrodendron petersii Klotzsch, *Peters Reise nach Mossambique*, *Bot.* 1: 101 (1862). — Type: Mozambique, near Sena, fl.bud, *Peters s.n.* (holo-, B, destroyed); Zambézia, between Mocuba and Mugeba, 36 km from Mocuba (Marata), fr., 16 V.1949, *Barbosa & de Carvalho 2667* (neo-, WAG, designated here; iso-, LMA).

Combretum obovatum F.Hoffmann (Fig. 7)

Beiträge zur Kenntnis der Flora Central-Ost-Afrika: 28 (1889); Wickens, *Flora of East Tropical Africa*, Combretaceae: 56 (1973); Exell, *Flora Zambesiaca* 4: 147 (1978). — Type: Tanzania, Tabora Distr., Igonda, fl., X.1882, *Böhm 140a* (holo-, B, destroyed; lecto-, Z, designated here).

Combretum lasiocarpum Engler & Diels, *Monographien afrikanischer Pflanzen Familien und Gattungen* 3: 96 (1899), syn. nov. — Type: Mozambique, Zambesi R, near Boroma, fr., II.1892, *Menyhart 678* (holo-, Z; iso-, W).

NOTE

It is not strange that *C. lasiocarpum* is often confused with *C. obovatum* as Exell stated (1978: 158). The type specimen of *C. lasiocarpum* keys out without problem to *C. obovatum* in the *Flora Zambesiaca* because the fruits of the type specimen are not stiped. The fruits of the other collections cited with *C. lasiocarpum* in *Flora Zambesiaca* are stiped, and they belong either to *C. mossambicense* (Klotzsch) Engler or to *C. andradae* Exell & Garcia.

Combretum pentagonum M.A.Lawson

Flora of Tropical Africa 2: 424 (1871); Wickens, *Flora of East Tropical Africa*, Combretaceae: 57 (1973); Exell, *Flora Zambesiaca* 4: 148 (1978).

Combretum bussei Engler & Diels, *Engler's Botanische Jahrbücher* 39: 509 (1907), syn. nov. — Type: Tan-

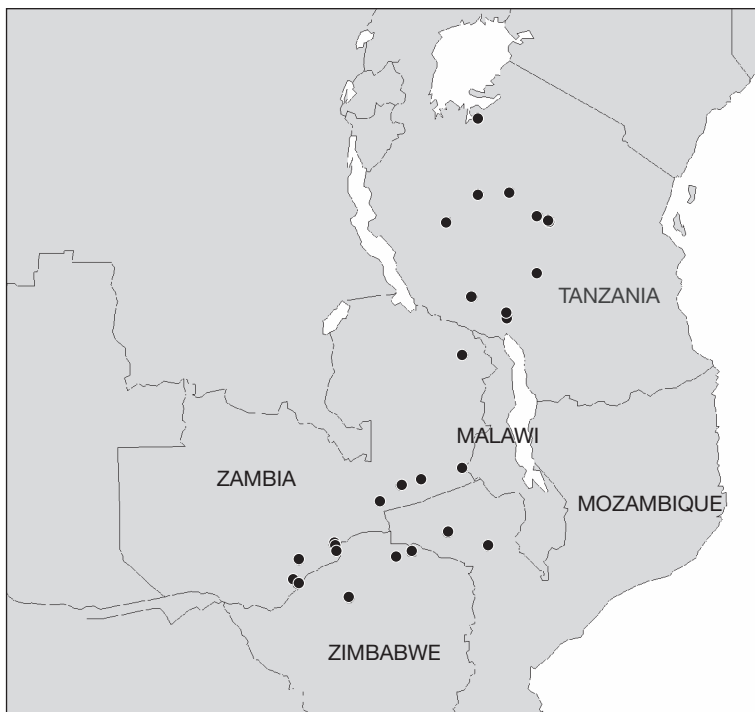


FIG. 7. — Distribution map of *Combretum obovatum* F.Hoffmann.

zania, near Lindi, on the road to Kitulo, fr., V.1903, *Busse 2429* (holo-, B, destroyed; lecto-, BM designated here; iso-, EA).

NOTE

In the floras of East Africa and Zambesiaca *C. bussei* is placed with doubt in synonymy of *C. constrictum*. However, the earlier overlooked duplicate at BM of the type-specimen shows that it is equal to *C. pentagonum*.

Combretum purpureiflorum Engler

Pflanzenwelt Ost-Afrikas und der Nachbargebiete: 292 (1895); Engler & Diels, *Monographien afrikanischer Pflanzen Familien und Gattungen* 3: 90, table 26d (1899); Wickens, *Flora of East Tropical Africa*, Combretaceae: 58 (1973). — Types: Tanzania, Tabora, fl., VIII.1890, *Stuhlmann 570* (holo-, B, destroyed); 56 km from Tabora to Nzega, fl., 25.VII.1950, *Bullock 3013* (neo-, K, designated here; iso-, B, BR).

Combretum sericeum G.Don
(Fig. 8)

Edinburgh Philosophical Journal 11: 347 (1824); Engler & Diels, *Monographien afrikanischer Pflanzen Familien und Gattungen* 3: 67 (1899); Andrews, *Flowering plants of Anglo-Egyptian Sudan* 1: 199 (1950); Keay, *Flora of West Tropical Africa* 1: 270 (1954); Liben, *Flore du Cameroun* 25: 16, table 5 (1983).

Combretum herbaceum G.Don, *Edinburgh Philosophical Journal* 11: 347 (1824). — Types: Sierra Leone, s.l., fr., *Afzelius s.n.* (lecto-, BM, designated here); fl., *Afzelius s.n.* (syn-, BM); fl., *Don 78* (syn-, BM); fl., *Don 127* (syn-, BM), *Afzelius s.n.* with fruits (lectotype) and *Afzelius s.n.* with flowers (syntype) are found on the same sheet.

Combretum platypetalum Welwitsch ex M.A.Lawson, *Flora of Tropical Africa* 2: 433 (1871); Exell, *Prodromus einer Flora um Sudwestafrika*, Family 99: 10 (1966); Liben, *Flore du Congo, du Rwanda et du Burundi*, Combretaceae: 39 (1968); Wickens, *Flora of East Tropical Africa*, Combretaceae: 54 (1973); Exell, *Flora Zambesiaca* 4: 151 (1978), syn. nov.

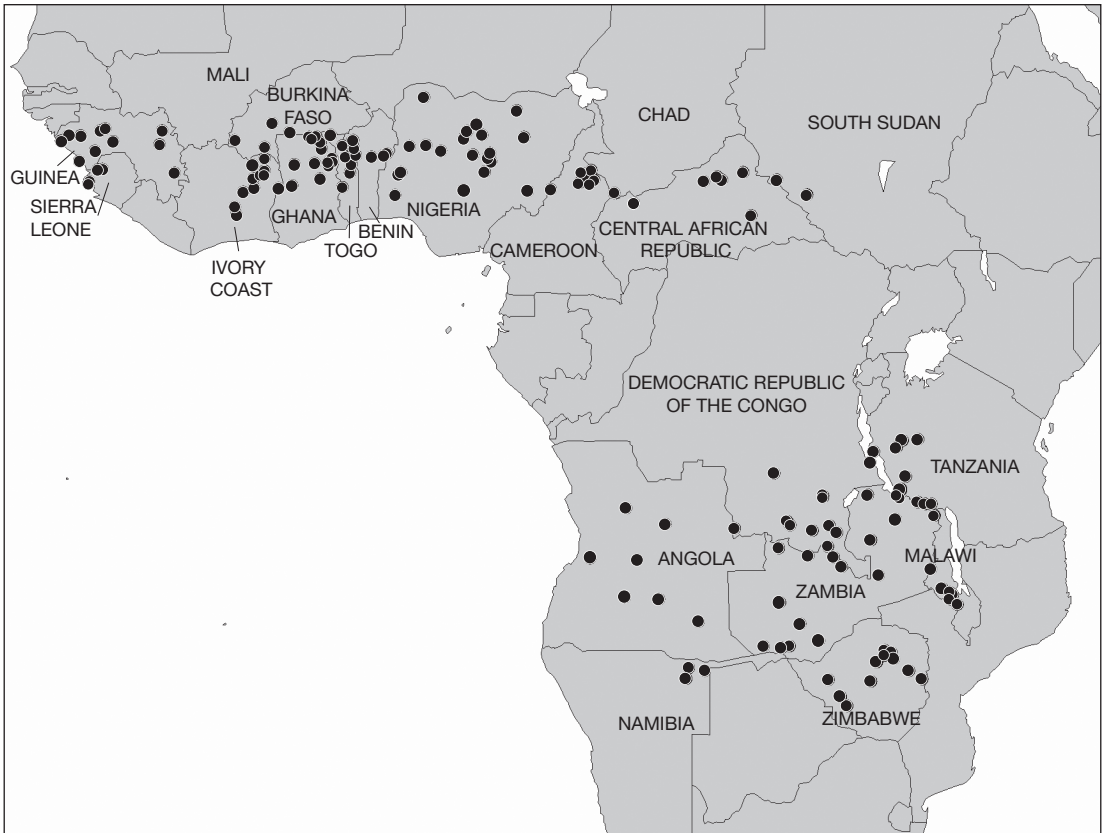


FIG. 8. — Distribution map of *Combretum sericeum* G. Don showing the gap in East Africa between the northern and southern distribution areas. All dots south of this gap represent plants formerly identified as *C. platysepalum*.

Combretum turbinatum F. Hoffmann, *Beiträge zur Kenntnis der Flora Central-Ost-Afrika*: 28 (1889). — Type: Tanzania, Ugalla R, Boga, fl., IX. 1881, *Böhm 43a* (holo-, B, destroyed; lecto-, Z, designated here).

Combretum parvulum Engler & Diels, *Monographien afrikanischer Pflanzen Familien und Gattungen* 3: 67, table 20e (1899). — Type: Central African Republic, Dar-Fertit, W of Kuru, fl., fr., I. 1871, *Schweinfurth 3-64* (holo-, B, destroyed; fragm.: BM; lecto-, P[P00391855], designated here; iso-, K).

Combretum argyrochryseum Engler & Gilg, *Kunene-Sambesi-Expedition*: 320 (1903). — Type: Angola, Bié, Ganguelas, between Kassingo and Kubango, fl., 5.X. 1899, *Baum 232a* (holo-, B, destroyed; fragm.: BM; lecto-, E, designated here).

Combretum lineare Keay, *Kew Bulletin*: 290 (1953); Keay, *Flora of West Tropical Africa* 1: 270 (1954), syn. nov.

NOTES

There is no clear difference between the *C. sericeum* plants from Central African Republic and the *C. platypetalum* plants from Tanzania in spite of the geographical gap. It would not be a surprise if that gap evolved relatively recently.

C. lineare is no more than a form of *C. sericeum* with narrow leaves. All other characters are the same, *C. sericeum* with wider leaves can also be glabrous.

Combretum umbricola Engler (Fig. 9)

Abhandlungen der Königlichen Preussischen Akademie der Wissenschaften zu Berlin: 17 (1894); *Pflanzenwelt*

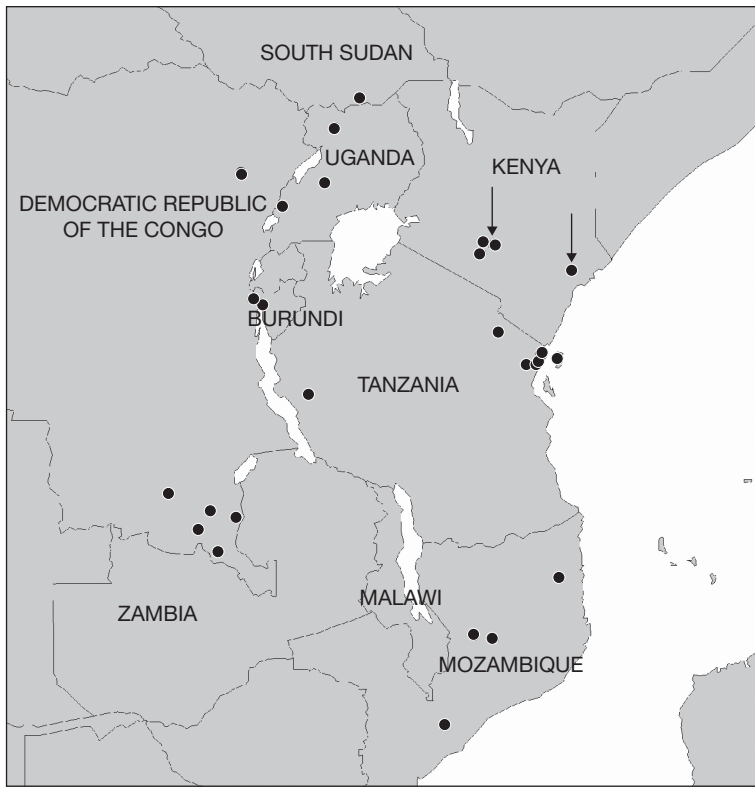


FIG. 9. — Distribution map of *Combretum umbricola* Engler showing the location of the specimens formerly assigned to *Combretum tanaense* (arrows).

Ost-Afrikas und der Nachbargebiete: 288 (1895); Engler & Diels, *Monographien afrikanischer Pflanzen Familien und Gattungen* 3: 23, table 5d (1899); Liben, *Flore du Congo, du Rwanda et du Burundi*, Combretaceae: 56 (1968); Wickens, *Flora of East Tropical Africa*, Combretaceae: 20 (1973); Exell, *Flora Zambesiaca* 4: 111 (1978). — Type: Tanzania, Tanga Distr., Doda, fl., VI.1893, *Holst* 2965 (holo-, B, destroyed; lecto-, K, designated here; iso-, HBG, M; fragm. & photo: BR).

Combretum tanaense J.J.Clark, *Kew Bulletin*: 263 (1911); Wickens, *Flora of East Tropical Africa*, Combretaceae: 20 (1973), syn. nov.

NOTE

Recently collected specimens bridge the gap between the two former species and show that there is only one species involved. After including the new synonym, and several newly identified specimens, the distribution of this species stretches now from Sudan to Mozambique and from 1500 m altitude to sea level (Fig. 9).

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