THE VASCULAR PLANTS OF THE DZANGA-SANGHA RESERVE D.J. Harris



The vascular plants of the Dzanga-Sangha Reserve, Central African Republic

David J. Harris Royal Botanic Garden Edinburgh 20A Inverleith Row Edinburgh, EH3 5LR UK

Email d.harris@rbge.org.uk

Scripta Botanica Belgica

Miscellaneous documentation published by the National Botanic Garden (Belgium)

Series editor: E. Robbrecht

Volume 23

D.J. Harris

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CIP Royal Library Albert I, Brussels

The vascular plants of the Dzanga-Sangha Reserve, Central African Republic. David J. Harris – Meise, National Botanic Garden of Belgium, 2002. – 274 p.; ill.: 22 cm. – (Scripta Botanica Belgica, Vol. 23).

ISBN 90-72619-50-1 ISSN 0779-2387

D/2002/0325/2

Publication date: December 15, 2002

Address of the author

Dr. David J. Harris Royal Botanic Garden Edinburgh 20A Inverleith Row, Edinburgh, EH3 5LR, U.K. [d.harris@rbge.org.uk]

Cover illustration of Berlinia craibiana Baker f. (photo D.J. Harris)

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Abstracts

Abstract. – This is an annotated checklist of the vascular plants occurring in the Dzanga-Sangha Dense Forest Reserve (4380 km²) in the south west of the Central African Republic. This area has been until now one of the least well-known in Africa. The list contains 1090 species collected in the Reserve. The number of species which could be named accurately was 958 (88%). The list contains many new records for the Central African Republic and many extensions to known ranges. Each species name is annotated with the following headings: literature reference, habit, habitat, distribution, local distribution within the Reserve, phenology information and cited specimens. The introduction has information on climate, vegetation types and phytogeography of the area. There is discussion on what should be included in botanical checklists from poorly known tropical areas.

Resumé. – Voici l'inventaire détaillé des plantes vasculaires existant dans la Réserve de forêt dense de la Dzanga-Sangha (4380 km²), dans le sudouest de la République centrafricaine. Cette région était restée jusqu'à présent l'une des moins prospectées de l'Afrique. Cet inventaire comprend quelque 1090 espèces. Le nombre d'espèces qui ont pu être déterminées avec certitude est de 958, soit 88% du total. La préscence de nombreuses espèces est signalée pour la première fois en République centrafricaine et a permis d'étendre leur aire de distribution. Pour chaque espèce, les informations suivantes sont fournies: référence bibliographique, port, habitat, distribution locale dans l'enceinte de la Réserve, phénologie et citation des spécimens. L'introduction donne un aperçu du climat, des types de végétation, et de la phytogéographie de la région. Ces différents points font l'objet d'une discussion pour ce qui concerne les inventaires en provenance de régions tropicales mal connues.

Acknowledgments

Over a period of thirteen years numerous people have helped in the process of producing this checklist. Only a few of them can be thanked personally here but I extend my heartfelt thanks to those who supported me during this period.

All the directors of the Dzanga-Sangha Project and their counterparts facilitated this work, especially the late U. Ngatoua and A. Blom. In addition almost all the staff of the Dzanga-Sangha Project helped me at various times. The following deserve special mention: J. Bobero, O. Doko, J. Fangonda, H. Ngaima, C. Zaolo.

J. Bakembe accompanied me most of the time in the field. His patience, sense of humour, kindness got us through some tough times. His sharing of his knowledge of the plants of this area, the culture of his people and his forest skills has made my life richer.

In the Bangui WWF office the late A. Mombe and F. Gotaya helped many times with great kindness.

Fellow researchers J. Ray and A. Turkalo provided hospitality over the years. A. Kretsinger shared a long-term commitment to an area and made her home my own.

This checklist was the idea of J.M. Fay, who supervised with a critical eye the first two years of the field work. The standards which he set me are the ones I have tried to maintain.

My fellow taxonomists encouraged and helped me throughout the process of identifying the specimens. They handed out their hard earned knowledge and pointed me in the right direction many times. Without my interaction with them my task would have been much harder and this would be a much poorer checklist. I therefore express my gratitude to: G. Achoundong, C. Berg, S. Bidgood, J. Bos, F. Breteler, D. Bridson, R. Brummitt, S. Cable, M. Cheek, M. Coode, J. Cowley, P. Cribb, S. Dawson, F. Dowsett-Lemaire, J. Dransfield, P. Edwards, R. Faden, E. Figueiredo, I. Friis, the late A. Gentry, R. Gereau, D. Goyder, F.N. Hepper, C. Jongkind, J. Léonard, A. Le Thomas, A.J.M. Leeuwenberg, G. Lewis, J.M. Lock, P. Lowry, B. Mackinder, S. Mayo, R. Mill, J.-M. Moutsamboté, B. Nkongmeneck, J.-M. Onana, A. Paton, T.R. Pennington, R. Polhill, A. Poulsen, G. Prance, A. Radcliffe-Smith, L. Rico, M. Sands, B. Schrire, K. Sidwell, D. Simpson, T. Sunderland, D. Thomas, P. Tuley, B. Verdcourt, K. Vollesen, the late F. White and P. Wilkin.

R. Carroll of WWF-US provided support through out the period of this work. His understanding of the importance of basic inventory work was

crucial at several points in this project. Without his support this checklist would not be as complete.

- D. Filer provided free software and support for his computer programme for taxonomic data, "Brahms", he listened patiently to a demanding taxonomist and replied to many of my numerous requests by incorporating them into his programme.
 - C. Gibb kindly helped with final formatting of the text.
- C. Leaver as Head of Department of Plant Sciences, University of Oxford provided support at a difficult time for this research and went the extra mile to assure the successful completion of the work.
- G. Prance as Director of the Royal Botanic Gardens Kew and his staff made me welcome at that institution for a period of sixteen months.
- R. Scotland provided inspiration when light was not visible at the end of the tunnel and was responsible for obtaining a crucial three years of funding.
- C. Trapnell took a keen interest in this study and was very supportive with the Trapnell Fund, University of Oxford.

This work was funded by Leverhulme Trust (F 642/C), WWF-US (Grant No. 6296), WWF-US and USAID (Grant No. 5554 –A-00-8044). Additional grants were provided by the Trapnell Fund, the Percy Sladen Memorial Trust, the Pat Brenan Memorial Trust and the James A. Swan Fund.

The Ministers of Water, Forests and the Environment and the High Commissioners for Tertiary Education and Research of the Central African Republic are thanked for their permission to carry this research and to export the specimens.

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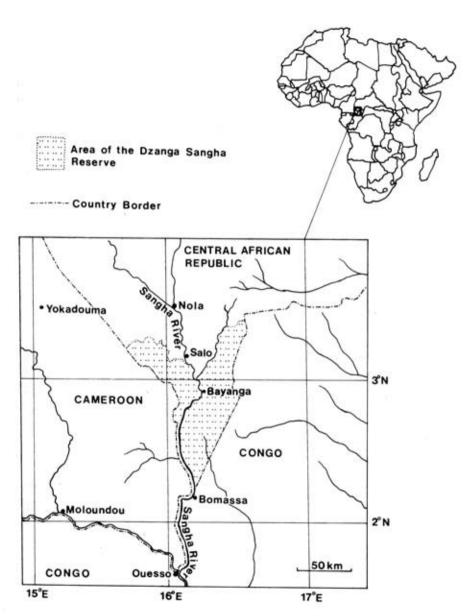


Figure 1. Map showing the location of the Dzanga-Sangha Reserve.

Part 1. Introduction

The site

The Dzanga-Sangha Dense Forest Reserve is located in the extreme south west of the Central African Republic and is bordered to the south east by the Republic of Congo (Brazzaville) and to the south west by Cameroon (see fig. 1). The most northern and southern latitudes are 3° 25′ N and 2° 14′ N; the most eastern and western 15° 40′ E and 16° 32′ E. The area of the Reserve is 4380 km². The area has been designated as a protected area since 1988. The management regime consists of two areas of National Park (727 km² and 495 km²) and a surrounding area of Reserve in which logging, traditional hunting, safari hunting and extraction of plants are allowed.

Climate

The long term annual rainfall for the Dzanga-Sangha area is probably between 1500 and 1600 mm per annum. This estimate comes from rainfall data collected from 1935–1960 at Ouesso to the south and Salo to the north (see tab. 1 and fig. 1). The average annual rainfall from Bayanga in the centre of the checklist area was only 1365 mm over the period 1973 to 1984. This may reflect a real difference in precipitation between Bayanga and Salo and Ouesso, but it may be due to fluctuation in rainfall patterns over the period from 1935 to 1984. People born in the period 1930–1950 say that the annual flooding of the Sangha River in the Dzanga-Sangha area was much higher when they were children, which might indicate that annual rainfall has fallen since this period. A comparison of rainfall data from 1973 to 1984 at Salo and Ouesso is required to investigate the hypothesis that regional rainfall was lower in the period 1973 to 1984.

The month with the highest rainfall is October and the second highest September. The months with the lowest rainfall are December, January and February which usually have less than 50 mm per month. Periods of up to 6 weeks without rain have been recorded in January and February. The monthly mean temperature varies from 25.4 °C (December) to 29.3 °C (April) in Bayanga (Carroll 1997).

Table 1. Annual rainfall figures for the region.

| Locality | Period | Average annual precipitation (mm) | Source |
|-------------------------|-----------|-----------------------------------|--------------------|
| Ouesso (Congo) | 1945–1965 | 1547 | Letouzey (1968) |
| Moloundou (Cameroon) | 1954–1965 | 1479 | Letouzey (1968) |
| Yokadouma (Cameroon) | 1942–1965 | 1539 | Letouzey (1968) |
| Salo | 1935–1960 | 1613 | Carroll (1997) |
| Nola | 1935–1960 | 1451 | Carroll (1997) |
| Bayanga | 1973–1984 | 1365 | Carroll (1997) |

Vegetation types

The vegetation types delimited during this study are presented below. The author of this checklist is by training a taxonomist and not a vegetation ecologist. The main method of delimiting the types was subjective examination of the vegetation in different parts of the area. This technique was augmented by some fixed area plots as part of Gentry's (1991) worldwide dataset and in support of ecological studies on gorillas (Fay 1997) and small carnivores and their prey (Ray 1996). Some of the plot data are presented in those publications. The vegetation types are described below in the hope that this will stimulate further quantitative studies.

Some of the vegetation types in the Dzanga-Sangha area are clearly defined and have extremely narrow transition zones to adjacent vegetation types. Others are not so well defined, are less obvious and grade into each other.

(1) Mixed species terra firma forest. This is the most widespread and the most diverse of the vegetation types occurring in the Dzanga-Sangha area. The heterogeneity of this forest is in both structure and species composition. The scale of the pattern varies considerably. It is tempting to subdivide this forest type but I believe that any attempt to impose divisions may result in a false and simplified picture of species associations. [Note: The french forêt de terre ferme has already been used (e.g. Evrard 1968) in

the Congo Basin to describe forest on dry land, in contrast to seasonally or permanently flooded forest. The Portuguese equivalent, *terra firme*, is widely used in the Amazon Basin. In English, I prefer to use these French, Portuguese or Latin terms because "dry land" or "upland" forest can lead to confusion with dry forest and montane forest respectively.]

The structure of the forest is made up of emergent tall trees (up to 50 m) with separate crowns and a range of shorter trees of different heights growing between them. There is no continuous canopy at any level. The understorey varies from extremely dense to very open. The herb layer is usually sparse, exposing bare ground on the forest floor, but it can, in places, be dense with giant herbs belonging to the families Marantaceae and Zingiberaceae. Low herbs less than 20 cm high are few in number of species and individuals. Lianas are common and contribute an important part to the forest structure. Epiphytes are less common than in some other moist forests in Africa but individual trees can have significant epiphyte loads. Treefalls of varying sizes and ages with regeneration in different successional stages add to the impression of a structurally heterogeneous habitat.

Common tall trees (30–40 m) are Ceiba pentandra, Celtis adolfi-friderici, Celtis mildbraedii, Entandrophragma cylindricum, Entandrophragma utile, Erythrophleum ivorense, Irvingia excelsa, Klainedoxa gabonensis, Lophira alata, Margaritaria discoidea, Nesogordonia papaverifera, Pentaclethra macrophylla, Petersianthus macrocarpus, Piptadeniastrum africanum, Phyllocosmus africanum, Pterocarpus soyauxii, Sterculia oblonga, Terminalia superba, Tetrapleura tetraptera and Zanthophyllum gilletii.

Common medium-sized trees (15–30 m tall) include Anonidium mannii, Markhamia tomentosa, Strombosia nigropunctata, Greenwayodendron suaveolens, Desplatsia dewevrei, Funtumia elastica, Grossera macrantha and Xylopia chrysophylla. Some of these medium-sized trees, such as Greenwayodendron suaveolens and Grossera macrantha, are locally dominant.

As with medium-sized trees, some of the smaller trees are also extremely common, e.g. *Rinorea subsessilis*, *Rinorea welwitschii* and *Thomandersia hensii*. Other common species are *Diospyros iturensis*, *Millettia sanagana*, *Tabernaemontana penduliflora* and *Trichilia welwitschii*.

Common shrubs are Aidia micrantha, Bertiera aethiopica, Bertiera iturensis, Hunteria ballayi, Microdesmis puberula, Mostuea brunonis, Mostuea hirsuta and Rinorea cerasifolia.

Common lianas are *Dalhousiea africana*, *Dewevrea bilabiata*, *Haumania danckelmaniana*, *Loeseneriella apiculata*, *Manniophyton fulvum* and *Pycnobotrya nitida*.

Common giant herbs (taller than 150 cm) are Aframomum limbatum, Anchomanes difformis, Ataenidia conferta, Palisota ambigua, Megaphrynium macrostachyum and Sarcophrynium schweinfurthianum. Smaller common herbs are Leptaspis zeylanica, Pseuderanthemum tunicatum, Celosia globosa, Geophila obvallata, and Streptogyne crinita.

Species composition varies greatly within mixed species *terra firma* forest. The reasons for this are not understood but some patterns can be discussed.

- Soil type seems to affect the distribution of some species, e.g. *Triplochiton scleroxylon* which is more common on red soil high in clay. The effect of soil type has been reported by Guillot (1981) to be important factor in the distribution of several tree species in northern Congo (Brazzaville) in very similar forest.
- Catena (position on slope) appears to have a subtle effect on gentle slopes over a distance of 2–3 km. Any catena effect may be linked to soil and water table differences.
- There are areas which have the appearance of late secondary forest with a high number of trees which appear to be light demanders and frequently occur on old fields or along logging roads. These areas may reflect significant forest disturbance in the past. Charcoal fragments have been found in the area in the soil on sites which now support forest. In addition a large number of *Elaeis guineensis* kernels can be found in streams suggesting widespread agriculture in the past.
- Megaphrynium macrostachyum forms single-dominant patches in some areas of the Dzanga-Sangha. "Marantaceae forests" have been suggested to reflect past human activity (Koechlin 1965) and forest colonisation of savanna (Letouzey 1968, White & al. 1995). It is likely that different species of Marantaceae have quite different habitat requirements and will reflect different forest histories. The Megaphrynium macrostachyum patches in this area appear to be maintained by disturbance by elephants and gorillas.
- There appear to be islands of more "primary" forest, with species such as *Irvingia excelsa*, *Irvingia robur*, *Anonidium mannii*, *Chrysophyllum boukokoense* and *Autranella congolensis*. Comparable islands were recorded by Letouzey (1968) in similar forest types in Cameroon.

• Mechanised logging has created differences in vegetation in mixed species terra firma forest. The mature stems of the harvested species (Entandrophragma angolense, E. candollei, E. cylindricum, E. utile, Pericopsis alata, Triplochiton scleroxylon) are removed. Logging roads and skidder trails are recolonised by light demanding or tolerant species. Some of these species are common in the adjacent unlogged forest, for example Oncoba welwitschii, Desplatsia dewevrei and Xylopia aethiopica. Other species are much rarer in unlogged forest and are only common because of the logging, e.g. Musanga cecropioides, Croton mayumbensis and Chromolaena odorata.

Some species appear only to occur in certain parts of the Dzanga-Sangha area in mixed species *terra firma* forest. For example *Streblus usambarensis* (= *Neosloetiopsis kamerunensis*) is very common around Kongana but has not been collected south of Lidjombo. In contrast, *Psilanthus mannii* is common around Ndakan but appears absent north of Lidjombo. *Rinorea brachypetala* has been collected at Dzanga, Salcapa and Ndakan but appears absent from Kongana.

(2) Gilbertiodendron dewevrei forest. This vegetation type is defined by the presence of the tree species Gilbertiodendron dewevrei, which is always gregarious in this area. This vegetation type, however, is different from mixed species terra firma forest in both structure and species composition (in addition to the presence of G. dewevrei). For a tropical lowland forest this is an unusual vegetation type because of the dominance of this single species. Some other species of tropical tree form single-dominant forests (Hart 1990) including Brachystegia laurentii in the Congo Basin (Germain & Evrard 1956). There have been careful studies documenting the ecology of Gilbertiodendron dewevrei and attempting to explain its remarkable dominance (Gérard 1960, Hart 1985). So far there has been no convincing reason put forward for the success of this species and it may be that there is no single factor causing its single-dominance. The species occurs from Nigeria to Congo (Kinshasa) and forms a significant part of the vegetation from south eastern Cameroon around the northern edge of the Congo Basin to eastern Congo (Kinshasa).

In the Dzanga-Sangha area, *G. dewevrei* forest occurs on different kinds of soil, from red soils high in clay to white sandy soils. It also occurs at different positions on the catena, from upland areas away from water courses to streamsides and temporarily flooded areas. Most *G. dewevrei* forest in this area occurs in bands alongside and parallel to small streams, very similar to the position of gallery forest in savanna areas.

The structure of *G. dewevrei* forest is much more homogeneous than that of mixed species *terra firma* forest. There is a more or less continuous canopy made up of the crowns of 30–45 m trees. Treefalls appear smaller and less frequent than in mixed species *terra firma* forest. There are fewer liana stems per hectare but large lianas (diam. over 30 cm) appear more common than in mixed species *terra firma* forest. Small trees (to dbh 30 cm) occur at a higher density in *G. dewevrei* forest. Low woody subshrubs (20–80 cm high) are common. The herb layer is almost absent except where there has been a treefall. Loranthaceous hemi-parasites appear to be more frequent in *G. dewevrei* than in mixed species *terra firma* forest.

Species composition also appears to be more homogeneous in *G. dewevrei* forest than in adjacent mixed species *terra firma* forest. For a fixed area there are less species due to the dominance of individuals of *G. dewevrei*, and in addition the community shows less species diversity.

Large tree species found growing in G. dewevrei forest include Albizia gummifera var. ealaensis (= Albizia adianthifolia var. intermedia), Anonidium mannii, Chrysophyllum pruniforme, Diospyros mannii, Erythrophloeum ivorense, Irvingia excelsa, Irvingia robur, Manilkara mabokeensis and Tessmannia africana. Common small trees include Diospyros iturensis, Belanophora coriacea, Isolona hexaloba, Rinorea welwitschii and Thomandersia hensii. Common lianas are Haumania danckelmaniana and Manniophyton fulvum. Common shrubs are Bertiera loraria, Hunteria ballayi and Ritchiea aprevaliana. Common subshrubs (less than 80 cm) are Bertiera adamsiii, Chassalia spp., Chazaliella spp., Hymenocoleus scaphus and Psychotria spp.. Common giant herbs include Marantochloa congoensis and Palisota brachythyrsa. Common herbs are Geophila obvallata, Geophila renaris, Hymenocoleus hirsutus, Lasianthus repens and Trichostachys microcarpa.

There are a number of species which, in the Dzanga-Sangha area, have only been collected in *G. dewevrei* forest. These include *Helixanthera subalata*, *Diospyros ferrea*, *Bertiera adamsii*, *Psychotria minuta*, *Marantochloa monophylla*, *Strychnos talbotiae* and *Strychnos dolichothyrsa*. These species may be considered in the Dzanga-Sangha area to be "obligate associates" of *G. dewevrei*. Over their entire range, however, they all seem to occur in other vegetation types.

Other species occur in mixed species *terra firma* forest in the Dzanga-Sangha area but are much commoner in *G. dewevrei* forest. For example, *Belonophora coriacea*, *Drypetes cinnabarina*, *Isolona hexaloba*, *Leptactina pynaertii* and *Palisota brachythyrsa*. These species may be considered "facultative associates" of *G. dewevrei* in the Dzanga-Sangha area.

(3) Riparian forest. Riparian forest grows along rivers and streams in the Dzanga-Sangha area. It intergrades with and shares many species with "open swamp" and "seasonally flooded forest on the Sangha River" which are described below. These "wet" vegetation types are not clearly separate, they do, however, have significant differences. In addition the species composition of Riparian forest fringing the Sangha River differs from that along streams.

When viewed from above the shape of riparian forest is extremely linear and branches as it follows the edge of streams, rivers and swamps. Its width is often only a few metres. The tallest trees are usually lower than the emergents of mixed species *terra firma*. There is often a continuous canopy at about 20 m high. The canopy can fall sharply across this vegetation type at right angles to the watercourse almost reaching ground level at the edge of streams or rivers. Small trees, shrubs and lianas are all common. Herbs are usually robust giants, smaller herbs are mostly absent.

Medium-sized trees such as Berlinia craibiana, Berlinia grandiflora, Cathormion altissimum, Cynometra sanagaensis, Irvingia smithii, Trichilia retusa, and Uapaca heudelotii are common in this vegetation type and absent in mixed species terra firma forest. Other tree species such as Parkia filicoidea occur in riparian forest and in mixed species terra firma forest. Common small trees are Anthocleista liebrechtsiana, Deinbollia laurentii, Diospyros gilletii and Synsepalum laurentii. Common lianas are Elachyptera holtzii, Macaranga saccifera, Morinda morindoides, Saba comorensis, Tetracera alnifolia and Urobotrya sparsifolia. Common giant herbs are Aframomum polyanthum, Marantochloa purpurea and Trachyphrynium braunianum.

(4) Open swamp forest, including Raphia swamp. Areas with permanent surface water and impeded drainage in the Dzanga-Sangha area have a distinctive vegetation type. The structure is of individual trees, usually only medium sized in height (c. 20 m), with no continuous canopy. Small trees are much less common than in mixed species terra firma forest and woody lianas are almost totally absent. Occasionally lianas such as Calamus deeratus form low thickets in the absence of suitable support for the climbing habit. The load of epiphytes on the medium-sized trees appears higher than that of the terra firma forest and similar to that of riparian forest. Giant herbs are often locally dominant.

Common trees are Alstonia congoensis, Berlinia craibiana, Hallea stipulosa (= Mitragyna stipulosa) and Raphia hookeri, Small trees include Ixora brachypoda and Scottellia orientalis. Giant herbs include

Aframomum polyanthum, Cyrtosperma senegalense, Marantochloa purpurea, Scleria verrucosa and Thalia geniculata. Smaller herbs include Eleocharis acutangula, Impatiens irvingii and Impatiens niamniamensis.

Some of these species are restricted to swamp forest, e.g. *Raphia hookeri* and *Alstonia congoensis*, but others such as *Berlinia craibiana* and *Marantochloa purpurea* are also common in riparian forest which is very often continuous with open swamp forest.

Raphia hookeri is unusual in that it forms almost monospecific stands over large areas. The dominance of the one species and the more continuous cover from its fronds suggests that this be treated as a different vegetation type. The associated species, however, do not appear different from other open swamp forest so I prefer to keep them together.

Raphia laurentii sometimes occurs with Raphia hookeri but usually it occurs in swamp forest with a slightly lower water table. It also occurs in riparian forest towards the headwaters of small streams.

(5) Seasonally flooded forest along the Sangha River. This forest is characterised by the annual flooding from the Sangha River which rises and falls over a range of 5 metres each year (Carroll 1997). This river, which receives water from savanna areas to the north, has much more sediment than the rivers and streams which have their catchment basin totally within the forest zone. In the Amazon Basin distinct vegetation types have been described (Pires & Prance 1985) along "white water" and "black water" rivers that differ in their levels of sediment load. The differences in water type between rivers appears to be less significant in the Congo Basin. However it is possible that the physical and chemical properties associated with the quantity of sediment between water originating from savanna areas and forest areas do play a role in the ecology of some plant species. Léonard (1990) drew attention to the distribution patterns in the Congo Basin of several species of Euphorbiaceae apparently influenced by the presence of water from river basins with savanna and other river basins that were completely forested.

The structure of the seasonally flooded forest on the Sangha is of 15–25 m trees forming a canopy with occasional emergents to 40 m. Gaps appear less common than in *terra firma* forest. The understorey consists of small trees (5–10 m) and shrubs are almost absent. Lianas are common. Gentry (1991) showed that seasonally flooded forest has many more lianas than adjacent *terra firma* forest, recording the very high figure of 156 individual lianas per 0.1 ha. Herbs appear evenly distributed and rarely form dense thickets.

The commonest emergent tree species is *Ceiba pentandra*. Common canopy trees are *Guibourtia demeusei*, *Irvingia smithii*, *Uapaca heudelotii* and *Uapaca guineensis*. Small trees include *Brazzeia congoensis*, *Chytranthus mortehanii* and *Coffea congensis*. Common lianas are *Elachyptera holtzii*, *Eremospatha laurentii*, *Saba comorensis* and *Tetracera stuhlmanniana*. Common herbs are *Aframomum pseudostipulare*, *Sarcophrynium brachystachys* and *Trachyphrynium braunii*.

Some species of the seasonally flooded forest on the Sangha also occur in open swamp and riparian forest but others, such as *Chytranthus mortehanii* and *Aframomum pseudostipulare*, seem to be restricted to this vegetation type. Others, such as *Macaranga monandra*, also occur in old fields and along roadsides in *terra firma* forest.

(6) Cyperaceae dominated meadows along streams - "bais". In the Aka language the word bai is used for forest clearings alongside seasonal or permanent water courses. This name is widely used by other people in the region. Since its application is usually accurate and it applies to a distinct vegetation type it is useful to biologists. A forest clearing without flowing water is called a yanga in Aka and also has a similar vegetation, dominated by sedges (Cyperaceae) with grasses (Graminae) more common than in the adjacent forest. There is often a gradient of species from the water's margin to the edge of the forest.

The origin of these clearings is unclear but they appear to be maintained by large mammal activity. The herbaceous vegetation increases in the wet season and is grazed and trampled in the dry season. Hunting pressure on large mammals can reduce their use of *bais*, and trees and shrubs then start to grow in the clearings.

(7) Savanna. In the northern part of the Dzanga-Sangha there are some areas of savanna surrounded by forest. The position of these islands of savannas (sometimes called "included savannas"), towards the main savanna-forest boundary to the North, and the sandy soil on which they occur, indicate that both climatic and edaphic factors may play a role in explaining their origin. The vegetation is burnt each year which probably reduces forest regeneration.

The savanna consists of a herb layer dominated by grasses with scattered small (2–5 m high) trees and shrubs. Common woody species include *Crossopteryx febrifuga*, *Psorospermum febrifugum* and *Vitex* spp. Herbs include *Aframomum alboviolaceum*, and the grasses *Hyparrhenia* spp. and *Pennisetum* spp.

Phytogeography

White (1983), in a broad study of African vegetation, delimited 18 phytochoria for mainland Africa. One of the most clearly defined of these phytochoria is the "Guineo-Congolian regional centre of endemism" which covers lowland moist forest from Guinea (Conakry) to eastern Congo (Kinshasa). This phytochorion clearly reflects the great majority of the species found in the Dzanga-Sangha area. The subdivision of this phytochorion, however, is not as clear as its circumscription.

In his text accompanying the vegetation map of Africa, White (1983) is careful to avoid any hierarchical subdivision of his proposed phytochoria. Instead he refers to "vegetation" as his next informal subdivision of the Guineo-Congolian regional centre of endemism, describing the main vegetation type in this area as "mixed moist semi-evergreen rain forest". White says it "covers an enormous area in the heart of the eastern block of rain forest, comprising north-east Gabon, south-east Cameroon, south-west Central African Republic, northern Congo (Brazzaville) and most of the Congo Basin and its periphery". Most species in this vegetation are widespread and many species occur in wetter "hygrophilous coastal evergreen Guineo-Congolian rain forest" and "drier peripheral Guineo-Congolian rain forest". In addition to "mixed moist semi-evergreen rain forest" the two other subdivisions of White (1983) present in Dzanga-Sangha are "single dominant moist evergreen and semi-evergreen Guineo-Congolian rain forest" and "Guineo-Congolian swamp forest and riparian forest". Despite the low number of species in these vegetation types they both show interesting phytogeographical patterns which will be addressed in a future paper.

Previously, White (1978) had proposed the Sangha River Interval to represent discontinuities in species distributions of several species of *Diospyros*. He later described the Sangha River Interval as extending from 14° to 18° E and being at least 400 km wide, and confirmed its existence using a larger sample of species (288) from various families (White 1979). This interval separates two subcentres of endemism of the Guineo-Congolian Region: "Lower Guinea" and "Congolia". The third subdivision, "Upper Guinea" is separated from Lower Guinea by the Dahomey gap. Breteler (1983) found no evidence of the Sangha River Interval in an analysis of Dichapetalaceae which he concluded was due to the differences in ecology of Dichapetalaceae and *Diospyros*.

White (1979) described the Sangha River Interval as "one of the least well-collected areas of Africa". Both White (1978) and Breteler (1983) discussed the possibility of the Sangha River Interval being an artifact of collecting. In this publication with 4000 new collections from midway

across the Sangha River Interval we are in a position to reassess White's hypothesis of an Sangha River Interval at the species level and test whether it was an artifact of under-collecting. White describes two types of patterns that support the existence of the Sangha River Interval. The first pattern is the occurrence of separate centres of endemism to the west and east of the Sangha River Interval. The new data from this study cannot be used alone to test this pattern. The second pattern is the existence of individual species absent from the SRI but present on both sides. In the checklist I report the presence of three species, *Diospyros ferrea*, *Psychotria minuta* and *Strychnos talbotiae*, that White (1978, 1979) cited as species having Sangha River Interval distribution patterns, i.e. the second pattern, species present to the east and west but absent from the interval. Thirteen other species listed by White (1978, 1979) and presented in tab. 2 were not collected for this checklist and their distributions still appear to support the idea of the Sangha River Interval.

The three species that were said to be absent from the Sangha River Interval by White (1978, 1979) but are reported in this checklist were collected in *Gilbertiodendron dewevrei* single-dominant forest. This supports one of White's (1971) aphorisms: "Taxonomy, chorology and ecology are interdependent."

Table 2. Species listed by White (1978, 1979) as evidence of a Sangha River Interval. Species in bold are shown in this checklist to occur in the Sangha River Interval.

| Dichapetalum acuminatum | Parinari congensis |
|-------------------------|------------------------|
| Diospyros boala | Psychotria gilletti |
| Diospyros ferrea | Psychotria minuta |
| Diospyros hoyleana | Psychotria subobliqua |
| Diospyros gracilescens | Strychnos floribunda |
| Diospyros melocarpa | Strychnos memicyloides |
| Diospyros polystemon | Strychnos talbotiae |
| Diospyros zenkeri | Trichilia gilgiana |

Letouzey (1985a), in the text accompanying his phytogeographical map of Cameroon, characterises the forest immediately adjacent to that of Dzanga-Sangha (in Cameroon) as belonging to the domaine de la forêt dense humide semi-caducifoliée guinéo-congolaise and a transition zone which is part of the domaine de la forêt dense humide toujours verte. Letouzey (1985b) maps two vegetation types and one transition zone in the immediately adjacent forest in Cameroon. They are: mapping unit 160 forêts semi-caducifoliées à Sterculiaceae et Ulmaceae, mapping unit 164 forêts semi-caducifoliées et forêts toujours vertes du Dja, avec prédominance d'éléments de forêts semi-caducifoliées, and the transition zone mapping unit 190 forêts mixtes, toujours vertes du Dja et forêts semi-caducifoliées, avec prédominance d'éléments de forêts du Dja.

Boulvert (1986), in his phytogeographical map of the Central African Republic, has two mapping units of his "secteur Congo-Guinéen" occurring in the Dzanga-Sangha area on dryland sites: "district forestier de la Mbaéré sur grès de Carnot-Bambio" and "district forestier de la Haute-Sangha".

On the ground in the Dzanga-Sangha area I have not recognised the differences between Letouzey's mapping units 160, 164 and 190 and between Boulvert's districts "de la Mbaéré sur grès de Carnot-Bambio" and "de la Haute-Sangha". It is important to recognize that these studies (Letouzey 1985a, Boulvert 1986) are presented from a country-wide perspective and that gradual changes in species composition have to be represented rather arbitrarily on a map. Letouzey (1985a) explicitly mentions the gradual transition between his "domaine de la forêt dense humide semicaducifoliée guinéo-congolaise" and his "domaine de la forêt dense humide toujours verte". Since the division reported by Boulvert (1986) is based partly on substrate it should be further investigated as it is possible that it does represent a real and abrupt difference in species composition.

In general the findings of White (1983), Letouzey (1985a) and Boulvert (1986) appear to be well founded when compared with the results from the present site specific study. White's broad study puts the plants found in this area in a continental perspective. Letouzey is particularly relevant in his lists of species which occur in the adjacent Cameroonian forest. Boulvert is also useful in putting the species in the Dzanga-Sangha area into the context of the vegetation to the north in the lower rainfall areas of the Central African Republic.

Although White (1983) and Letouzey (1985a) are in agreement about most of their discussions on phytogeography they do differ in the names they use for the forest types in this area. Letouzey uses the word "semi-caducifoliées" (semi-deciduous) and White "semi-evergreen". White argues

that the term semi-evergreen is more appropriate because although some of the emergent tree species are deciduous (often for very short periods), the understorey species are almost all evergreen, and the forest as a whole is, at any one time, almost completely green. To anybody who is not familiar with this forest type, it would be easy to misunderstand Letouzey's term semi-deciduous and think of a much drier and more seasonal vegetation. I therefore prefer White's title "mixed moist semi-evergreen Guineo-Congolian rain forest" to describe the dominant vegetation type of this area.

Previous botanical exploration

White (1979) refers to this area as "one of the least well-collected areas of Africa". The largest number of specimens collected near the Dzanga-Sangha Reserve are from the area to the west in Cameroon. Mildbraed (1922) collected around Moloundou and from Moloundou to Yokadouma. Letouzey collected in the forest of eastern Cameroon, making repeated visits to the Yokadouma to Moloundou area from 1963 until 1978, including a collecting trip up the Sangha River from Ouesso to Bela. Tessmann collected a few specimens around Nola during the period 1913–1914. Leeuwenberg collected some specimens between Salo and Nola in 1965.

At the beginning of this study the nearest forest sites which had a detailed botanical inventory were Boukoko in the Central African Republic (300 km to the north east) and Makokou in Gabon (500 km to the south west) (Florence & Hladik 1980).

Methods

To interpret the results of this checklist fully it is necessary to consider the "how" and "why" of the collection and identification process. Collections were made with several aims in mind. The collections by Harris, Fay, Carroll and Fangonda were carried out primarily as a botanical inventory of the area and consisted of opportunistic collection of fertile material mostly in *terra firma* mixed species forest. However, Harris made regular visits to other vegetation types to collect fertile specimens. Well known species were usually not recollected after 4–5 fertile collections were made. Some of the Harris collections and a significant proportion of the Fay collections concentrated on gorilla foods, including specimens made from plants found discarded by gorillas on feeding trails. These specimens were usually sterile and often had been chewed by gorillas. Remis and Goldsmith made mostly fertile collections of gorilla food species for identification by herbarium botanists. A significant proportion of the Harris collections were

sterile vouchers from ecological plots and ethnobotanical studies. The Harris collections also include specimens made during taxonomic research on Irvingiaceae and Zingiberaceae.

The collection of specimens has been concentrated around Ndakan (c. 1800 numbers) and Kongana (c. 1400), Bai Hoku (c. 500) with additional collections around Bayanga, Dzanga and Lidjombo. More than 50% of the area of the Dzanga-Sangha Reserve was not visited for this checklist.

The normal procedure for identifying general collections from a poorly known tropical forest is to send specimens to a herbarium for naming. Duplicates are then sent to specialists in other institutions and the names are sent back to the collector. I chose not to do this for several reasons. The first reason is that so many specimens were sterile and I was well aware that many herbarium botanists would refuse to identify sterile material. Secondly, I knew that there was not enough knowledge for this poorly known flora to allow even specialists to make quick and accurate identifications of each species. Thirdly, I wanted my identifications as soon as possible and I feared that the process of distributing the specimens, naming by specialists and sending back the names would take too long. Fourthly, I wanted to collect information on the species in a consistent manner. Fifthly, I wanted to have a good idea of the confidence I could place in a name and to record that confidence in a consistent manner for all species. Finally, I wanted to make sure that unnamed species were kept separate. For example if clearly distinguished species were collected but could not be named I wanted the specimens to be consistently named "sp. A" and "sp. B." and not just "sp.".

Because of the number of the specimens from tropical Africa, the extensive library, the knowledgeable staff, and the number of visiting specialists I chose to do my identifications at Kew. The specimens will be deposited at BR, E, K, MO and other herbaria.

The identification of all almost all groups except Orchidaceae, Loranthaceae and *Chlorophytum* was carried out by the author at Kew. The Orchidaceae were identified by P. Cribb, the Loranthaceae by R. Polhill and the *Chlorophytum* by A. Poulsen. Numerous other specialists helped me identify specimens to genus or species. All these identifications were then checked using the appropriate literature and the collection in the herbarium at Kew.

It took 16 months of full time work to identify the 4000 specimens and record the data presented in the checklist. The average number of specimens named in a day was 12. The number of specimens which were not identified is about 1000. Subsequent to this period of identification a fur-

ther 500 numbers have been collected from the area and await identification.

Checklists which consist solely of lists of names are of limited value because there is little way of checking where a name came from. It is essential in the compilation of a checklist to either cite a specimen or provide a literature reference to show where the name has been used previously. Without one or both of these pieces of information many names from poorly known tropical areas are almost meaningless because the information cannot be easily checked.

The aphorism: "if there's no voucher, it ain't science" (anonymous American scientist, pers. comm. 1998) may sound extreme, but it should always be kept in mind when discussing species-level data from tropical forests. Boulvert (1986), for example, lists two species from the Dzanga-Sangha area, *Testulea gabonensis* and *Microberlinia brazzavillensis* that are not reported in this checklist. Since specimens are not cited by Boulvert (1986) it is impossible to verify them and include them in this checklist. Several species (e.g. *Canarium schweinfurthii* and *Elaeis guineensis*) known to occur in the Dzanga-Sangha area have not been included in the checklist because no herbarium voucher is available. An additional reason for listing vouchers is that future name changes and future determinations can be readily updated.

In my opinion, the literature reference is almost as essential as the specimen citation in a checklist such as this one. By providing the published source of a name, the checklist author helps to point future workers to the relevant literature which is widely distributed in books and journals, and facilitates the checking of each name.

Results

The number of species presented in the checklist is 1090 represented by 4000 specimens. The number of genera is 577 and the number of families is 122 (ferns 16, gymnosperms 1, angiosperms 103).

The frequencies of species which are represented by different numbers of specimens are presented in tab. 3 (p. 24). Note that 339 (31%) of the species are only represented by a single specimen. This indicates that much more collecting is required to "capture" the full number of species in the area. This, and the number of additional species which I have collected since compiling this checklist, lead me to estimate that the total number of vascular plants species from the Dzanga-Sangha area may be as high as 1500.

Table 3. The number of specimens collected per species.

| Number of specimens collected of a species | Species |
|---|-------------|
| 1 | 339 |
| 2 | 216 |
| 3 | 126 |
| 4 | 110 |
| 5 | 71 |
| 6 | 54 |
| 7 | 39 |
| 8 | 30 |
| 9 | 30 |
| 10 | 19 |
| 11 | 11 |
| 12 | 14 |
| 13 | 9 |
| 14 | 7 |
| 15 | 4 |
| 16 | 3 |
| 17 | 1 |
| 18 | 1 |
| 20 | 3 |
| 21 | 1 |
| 22 | 2 |
| 47 | 1 |
| | Total =1090 |

The 11 most speciose genera are listed in tab. 4. *Ficus* is the most speciose genus, with 21 species. The 10 most speciose families are listed in tab. 5. Rubiaceae is the most speciose family, with 13% of the total species reported.

Table 4. The number of species per genus for the 11 most speciose genera.

| Genus | No. of species |
|--------------|----------------|
| Ficus | 21 |
| Drypetes | 16 |
| Aframomum | 13 |
| Clerodendrum | 12 |
| Combretum | 12 |
| Strychnos | 12 |
| Psychotria | 12 |
| Dioscorea | 11 |
| Diospyros | 9 |
| Bulbophyllum | 9 |
| Tricalysia | 9 |

Table 5. The number of species per family for the 10 most speciose families.

| Family | No. of species |
|--|----------------|
| Rubiaceae | 140 |
| Leguminosae (Pap. 51, Caesalp. 27, Mim. 17). | 95 |
| Euphorbiaceae | 67 |
| Apocynaceae | 39 |
| Orchidaceae | 37 |
| Annonaceae | 35 |
| Moraceae | 29 |
| Sapindaceae | 28 |
| Celastraceae | 23 |
| Acanthaceae | 22 |

The number of species which could not be named accurately is 132 (12% of the species), see tab. 6 (p. 26). Of these species, 71 (6.5%) are named only as sp. A, sp. B etc., 54 (5%) are given a tentative name with the annotation *vel sp. aff.* (meaning "may be this species or another related species") and seven (0.5) have the prefix *sp. aff.* (meaning "not this species but one apparently closely related to it"). Some of these species that are not named accurately are undescribed and others are in genera requiring revision. Specimens that are too poor to allocate confidently to a species are not recorded in this checklist.

Table 6. The variation in how accurately the species could be named.

| Species named with confidence | 958 (88%) |
|--|-----------|
| Species named only as sp. A., sp. B., etc. | 71 (6.5%) |
| Species named as "sp. aff.", i.e. not this species but apparently closely related to it | 7 (0.5%) |
| Species name qualified by "vel sp. aff.", i.e. may be this species or may be one closely related to it | 54 (5%) |

Part 2. The checklist

Layout, headings and abbreviations

The checklist is laid out under the following headings: Pteridophyta (p. 29), Spermatophyta (p. 34), Gymnospermae (p. 34) and Angiospermae (p. 35). The Angiospermae are further divided into Dicotyledones (p. 35) and Monocotyledones (p. 219). Families are arranged alphabetically under these divisions. Species are listed alphabetically within families. The family Leguminosae is the sole exception and it is divided into the three subfamilies: Caesalpinioideae, Mimosoideae and Papilionoideae. Authors of names follow Brummitt & Powell (1992).

Under each species the following headings are used:

Ref. I cite a reference with a page number for each name treated. For the main African floras the citation is made using the abbreviations listed in tab. 7 (p. 28) and the necessary information to allow direct reference is provided. These abbreviated flora references are not listed in the bibliography. All other references are listed in the bibliography.

Synonym. Synonyms are only given in cases in which confusion might arise because of widespread or recent use. Synonyms appear in the index in italics.

Habit. This describes the species as observed in the Dzanga-Sangha area.

Habitat. This is the vegetation type in which the species has been observed in the Dzanga-Sangha area.

Distribution. This is the global distribution of the species, gleaned from the literature and the specimens at Kew. Species which are not named accurately (for example, those qualified by *vel sp. aff.*) are not given a distribution.

Phenology. This refers only to specimen data from within the Dzanga-Sangha area.

Local distribution. This is the distribution within the Dzanga-Sangha area and is based solely on cited specimens.

Note. This is added in some cases to clarify any ambiguity about the use of a name.

Specimens. Citation of material collected in the Dzanga-Sangha area.

The abbreviations used in the checklist are given in tab. 7 (p. 28).

Table 7. Abbreviations used in the checklist.

| vel sp. aff. | Either this species or one closely related to it |
|-----------------|---|
| sp. aff. | Not this species but apparently one closely related to it |
| Consp. Fl. Ang. | Conspectus Florae Angolensis |
| F.C.B. | Flore du Congo belge et du Ruanda- Urundi |
| F.C.R.B. | Flore du Congo, du Rwanda et du Burundi |
| Fl. Afr. Cent. | Flore d'Afrique Centrale |
| Fl. Cam. | Flore du Cameroun |
| Fl. Gabon | Flore du Gabon |
| Fl. Zamb. | Flora Zambesiaca |
| F.T.A. | Flora of Tropical Africa |
| F.T.E.A. | Flora of Tropical East Africa |
| F.W.T.A. | Flora of West Tropical Africa, ed. 2 |

Pteridophyta

Adiantaceae

Adiantum vogelii Mett. ex Keys

Ref. Tardieu-Blot, Fl. Gabon 8: 106. 1964.

Habit. Herb.

Habitat. Seasonally flooded forest. Distribution. Guinea to Gabon,

Zanzibar and Angola. *Local distribution*. Bayanga. *Phenology*. Fertile: January.

Specimens. Harris 4255.

Aspleniaceae

Note. The following *Asplenium* species were distinguished by R. Johns at Kew who is revising them.

Asplenium sp. A.

Habit. Epiphyte.

Habitat. Gilbertiodendron dewevrei forest. *Local distribution*. Bayanga, Ndakan, Kongana. *Phenology*. Fertile: January, February, October. Specimens. *Harris* 4227, 4614; *Fay* 8656.

Asplenium sp. B.

Habit. Epiphyte.

Habitat. Terra firma forest. Local distribution. Dzanga. Phenology. Fertile: October.

Specimens. Harris 3620.

Asplenium sp. C.

Habit. Epiphyte.

Habitat. Gilbertiodendron dewevrei forest. Local distribution. Kongana. *Phenology*. Fertile: March.

Specimens. Harris 5516.

Asplenium sp. D.

Habit. Epiphyte.

Habitat. Terra firma forest. Local distribution. Ndakan. Phenology. Fertile: December.

Specimens. Fay 8819.

Azollaceae

Azolla pinnata R.Br.

Ref. Lawalrée, Fl. Afr. Cent. (Azollaceae): 2. 1976.

Habit. Floating herb.

Habitat. Marshy clearing in forest. Distribution. Tropical Africa, Asia and Australia. Local distribution. Ndakan. Phenology. Fertile: September.Specimens. Harris 1166.

Dennstaedtiaceae

Microlepia speluncae (L.) Moore

Ref. Tardieu-Blot, Fl. Gabon 8: 68. 1964.

Habit. Herb.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Tropical Africa and Asia. Local distribution. Kongana. Phenology. Fertile: February. Specimens. Harris 4642.

Dryopteridaceae

Lastreopsis currori (Mett.) Tindale

Ref. Tindale, 1965: 282.

Habit. Herb 1.5 m high.

Habitat. Roadside and streamside. *Distribution*. Liberia to Madagascar. *Local distribution*. Dzanga. *Phenology*. Fertile: March, October. Specimens. *Harris* 3607, 5482.

Lomariopsidaceae

Bolbitis gaboonensis (Hook.) Alston

Ref. Alston, 1959: 68.

Habit. Terrestrial herb.

Habitat. Mixed species terra firma forest and Gilbertiodendron dewevrei forest. Distribution. Guinea to Tanzania. Local distribution. Dzanga, Kongana. Phenology. Fertile: January, May, December.
 Specimens. Fay 8463.

Bolbitis gemmifera (Hieron.) C.Chr.

Ref. Tardieu-Blot, Fl. Gabon 8: 184. 1964.

Habit. Herb.

Habitat. Seasonal streambed. *Distribution*. Nigeria to Congo (Kinshasa) and Angola. *Local distribution*. Ndakan. *Phenology*. Fertile: January. Specimens. *Harris* 3966, 4220, 5018.

Lomariopsis guineensis (Underw.) Alston

Ref. Tardieu-Blot, Fl. Gabon 8: 180. 1964.

Habit. Climber 2 m high.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Guinea to Sudan and Angola. Local distribution. Kongana. Phenology. Fertile: May. Specimens. Harris 5017.

Oleandraceae

Arthropteris monocarpa (Cordem.) C.Chr.

Ref. Alston, 1959: 52.

Habit. Epiphyte.

Habitat. Terra firma forest. Distribution. Guinea to Mascarene Islands. Local distribution. Kongana. Phenology. Fertile: January. Specimens. Harris 4313.

Nephrolepis undulata (Afzel. ex Sw.) J.Sm.

Ref. Tardieu-Blot, Fl. Gabon 8: 86. 1964.

Habit. Herb.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Tropical Africa. Local distribution. Kongana. Phenology. Fertile: November. Specimens. Harris 5335.

Oleandra distenta Kunze

Ref. Tardieu-Blot, Fl. Gabon 8: 84. 1964.

Habit. Epiphyte.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Tropical Africa and Mascarenes. Local distribution. Bayanga. Phenology. Fertile: January. Specimens. Harris 4231.

Polypodiaceae

Drynaria laurentii (C.Chr.) Hieron.

Ref. Tardieu-Blot, Fl. Gabon 8: 199. 1964.

Habit. Epiphyte.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Kongana.

Specimens. Harris 5135.

Microgramma owariensis (Desv.) Alston

Ref. Tardieu-Blot, Fl. Gabon 8: 206. 1964.

Habit. Epiphyte.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Tropical Africa. Local distribution. Kongana. Phenology. Fertile: February.

Specimens. *Harris* 605, 5339, 5515.

Platycerium stemaria (P.Beauv.) Desv.

Ref. Tardieu-Blot, Fl. Gabon 8: 198. 1964.

Habit. Epiphyte.

Habitat. Terra firma forest. Distribution. Tropical Africa. Local distribution. Bayanga. Phenology. Fertile: January.

Specimens. Harris 4226, 4243.

Pteridaceae

Pteris burtonii Baker

Ref. Tardieu-Blot, Fl. Gabon 8: 110, 1964.

Habit. Herb.

Habitat. Gilbertiodendron dewevrei and riparian forest. Distribution. Guinea to Gabon, Tanzania and Angola. Local distribution. Kongana,

Dzanga. *Phenology*. Fertile: January, February, December.

Note. The original spelling of the species epithet has been corrected from "burtoni" to "burtonii" in accordance with the International Code of Botanical Nomenclature Article 60.11 (Greuter & al. 2000).

Specimens. Harris 4222, 4223, 4649, 4666.

Pteris similis Kuhn

Ref. Tardieu-Blot, Fl. Gabon 8: 114. 1964.

Habit. Herb.

Habitat. Streamsides and roadsides. Distribution. Guinea to Sudan.

Tanzania and Gabon. *Local distribution*. Dzanga, Kongana. *Phenology*. Fertile: January.

Specimens. Harris 4269, 4295.

Salviniaceae

Salvinia sp. A.

Habit. Floating herb.

Habitat. On the Sangha River.

Specimens. Harris 822.

Schizaeaceae

Lygodium microphyllum (Cav.) R.Br.

Ref. Tardieu-Blot, Fl. Gabon 8: 45. 1964.

Habit. Climber forming thicket.

Habitat. Streamside. Distribution. Pantropical. Local distribution. Njeke. *Phenology*. Fertile: January.

Specimens. Harris 113.

Lygodium smithianum Presl ex Kuhn

Ref. Tardieu-Blot, Fl. Gabon 8: 46. 1964.

Habit. Climber.

Habitat. Roadside vegetation. Distribution. Guinea to Angola and Congo (Kinshasa). Local distribution. Salcapa. Phenology. Fertile: March. Specimens. Harris 4833.

Thelypteridaceae

Christella dentata (Forssk.) Holttum

Ref. Holttum, 1974: 143.

Habit. Herb.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Tropical Africa and Asia. Local distribution. Kongana. Phenology. Fertile: December. Specimens. Harris 4224, 4297.

Christella microbasis (Baker) Holttum

Ref. Holttum, 1974: 146.

Habit. Herb.

Habitat. Streamside. Distribution. Guinea to Angola. Local distribution. Kongana. Phenology. Fertile: January, December.

Specimens. Harris 4174, 4296.

Woodsiaceae

Diplazium sammatii (Kuhn) C.Chr.

Ref. Tardieu-Blot, Fl. Gabon 8: 145. 1964.

Habit. Herb.

Habitat. Mud by stream. Distribution. Guinea to Gabon, Sudan and Congo (Kinshasa). Local distribution. Kongana. Phenology. Fertile: June, December.

Specimens. Harris 4166, 5075.

Selaginellaceae

Selaginella sp. A.

Habit. Herb.

Habitat. Damp soil by stream. *Local distribution*. Kongana. Specimens. *Harris* 5389.

Spermatophyta

Gymnospermae

Gnetaceae

Gnetum africanum Welw.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 33. 1954.

Habit. Liana 10 m high.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest, and seasonally flooded forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Kongana, Salcapa, Ndakan. Phenology. Flower: January. Fruit: March, November.

Specimens. *Harris* 637, 1368, 1516, 4302, 4832; *Fay* 8527.

Gnetum buchholzianum Engl.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 33. 1954.

Habit. Liana to 15 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: February, April, October.

Specimens. Harris 545, 1410, 5430; Fay 8526.

Angiospermae-Dicotyledones

Acanthaceae

Acanthus montanus (Nees) T.Anderson

Ref. Heine, Fl. Gabon 13: 112. 1966.

Habit. Herb.

Habitat. Bare ground by water. *Distribution*. Benin to Congo (Kinshasa). *Local distribution*. Kongana, Ndakan. *Phenology*. Flower: January, February.

Specimens. Harris 1931, 5403.

Adhatoda robusta C.B.Clarke

Ref. Heine, F.W.T.A. 2: 222. 1963.

Habit. Shrub 4 m high.

Habitat. Roadside vegetation. Distribution. Côte d'Ivoire to Cameroon and Gabon. Local distribution. Dzanga. Phenology. Fruit: January, December. Specimens. Harris 3917, 4215.

Anisotes macrophyllus (Lindau) Heine

Ref. Heine, Fl. Gabon 13: 189. 1966.

Habit. Herb 1.5 m high.

Habitat. Light gaps in terra firma forest. Distribution. Cameroon to Uganda and Gabon. Local distribution. Kongana, Ndakan. Phenology. Flower: January, February. Fruit: January, February.

Specimens. *Harris* 141, 245, 1745, 4452, 4626, 5400; *Fay* 8185; *Fangonda* 270.

Asystasia vogeliana Benth.

Ref. Heine, Fl. Gabon 13: 130. 1966.

Habit. Herb 80 cm high.

Habitat. Riparian forest. Distribution. Ghana to Congo (Kinshasa). Local distribution. Dzanga, Kongana, Lidjombo. Phenology. Flower: January, February, March, December. Fruit: February.

Specimens. *Harris* 4169, 4273, 4570, 4701, 4743.

Brillantaisia vogeliana (Nees) Benth.

Ref. Sidwell, 1998: 95.

Habit. Herb to 1 m high.

Habitat. Roadsides. *Distribution*. West Africa to Sudan, Congo (Kinshasa) and Kenya. *Local distribution*. Dzanga, Kongana. *Phenology*. Flower: February, December. Fruit: December.

Specimens, Harris 4025, 4389, 5382.

Dicliptera elliotii C.B.Clarke

Ref. Heine, Fl. Gabon 13: 193. 1966.

Habit. Herb.

Habitat. Riparian forest. Distribution. Sierra Leone to Gabon. Local distribution. Ndakan. Phenology. Flower: March.

Specimens. Harris 310.

Elytraria marginata Vahl

Ref. Heine, Fl. Gabon 13: 155. 1966.

Habit. Herb.

Habitat. Light gaps in terra firma forest and fields. Distribution. Guinea to Uganda. Local distribution. Ndakan. Phenology. Flower: August. Fruit: March, August.

Specimens. Harris 309, 907.

Justicia claessensii De Wild. vel sp. aff.

Ref. De Wildeman, 1915: 11.

Habit. Liana.

Habitat. Seasonally flooded sedge meadow. *Local distribution.* Njeke. *Phenology.* Flower: October.

Specimens. Harris 1486.

Justicia extensa T.Anderson

Ref. Heine, Fl. Gabon 13: 224. 1966.

Habit. Liana 3 m high.

Habitat. Terra firma forest. Distribution. Guinea to Mozambique. Local distribution. Ndakan. Phenology. Flower: January.

Specimens. Harris 1751.

Justicia maculata T.Anderson vel sp. aff.

Ref. Heine, F.W.T.A. 2: 422. 1963.

Habit. Liana.

Habitat. Roadside vegetation. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Bayanga, Kongana. Phenology. Flower: January, July.

Specimens. Harris 2964, 5397.

Lankesteria elegans (P.Beauv.) T.Anderson

Ref. Heine, Fl. Gabon 13: 96. 1966.

Habit. Herb to 1 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Sudan, Uganda and Gabon. Local distribution. Kongana, Ndakan. Phenology. Flower: January, February. Fruit: February.

Specimens. Harris 36, 246, 1850, 4562.

Mendoncia gilgiana (Lindau) Benoist

Ref. Heine, Fl. Gabon 13: 70. 1966.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Liberia to Uganda. Local distribution. Dzanga, Kongana, Ndakan. Phenology. Flower: October.

Fruit: January, June, November, December.

Specimens. Harris 2576, 3523, 4070, 5047, 5393; Fay 8501, 8805.

Mendoncia lindaviana (Gilg) Benoist

Ref. Heine, Fl. Gabon 13: 68. 1966.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Kongana. Phenology. Flower: June (bud).

Specimens. Harris 5029.

Nelsonia smithii Oerst.

Ref. Vollesen, 1994: 322.

Habit. Herb.

Habitat. Swamp forest. Distribution. Guinea to Angola and Zambia, Ethiopia and Tanzania. Local distribution. Dzanga. Phenology. Flower: December.

Specimens. Harris 3901.

Phaulopsis angolana S.Moore

Ref. Manktelow, 1996: 99.

Habit. Herb.

Habitat. Light gaps in terra firma forest and roadsides. Distribution. Sierra Leone to Ethiopia, Kenya and Angola. Local distribution. Dzanga, Kongana, Salcapa, Ndakan. Phenology. Flower: February, March, December.

Specimens. Harris 269, 1777, 3386, 4023, 5383, 5480.

Pseuderanthemum ludovicianum (Büttner) Lindau

Ref. Heine, Fl. Gabon 13: 170. 1966.

Habit. Herb 2 m high.

Habitat. Terra firma and riparian forest. Distribution. Nigeria to Gabon. Local distribution. Kongana, Lidjombo, Ndakan. Phenology. Flower: January, February.

Note. There is an error in the species key by Heine (Fl. Gabon 13. 1966): the inflorescences are longer than 3 cm.

Specimens. Harris 54, 131, 164, 1738, 1775, 4343, 4392, 5456.

Pseuderanthemum tunicatum (Afzel.) Milne-Redh.

Ref. Heine, Fl. Gabon 13: 168. 1966.

Habit. Herb.

Habitat. Terra firma forest. Distribution. Tropical Africa. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: January, February. March.

Specimens. *Harris* 34, 35, 75, 1968, 4385.

Rhinacanthus virens (Nees) Milne-Redh.

Ref. Heine, Fl. Gabon 13: 201, 1966.

Habit. Herb.

Habitat. Terra firma and seasonally flooded forest. Distribution. Guinea to Congo (Kinshasa), Tanzania and Uganda. Local distribution. Ndakan. Phenology. Flower: January, March. Fruit: January.

Specimens. Harris 144, 288.

Stenandrium guineense (Nees) Vollesen

Ref. Vollesen, 1992: 182.

Habit. Herb.

Habitat. Deep shade on a laterite outcrop. Distribution. Guinea to Sudan, Uganda, Gabon and Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: August.

Specimens. Harris 936.

Thomandersia hensii De Wild. & T.Durand

Ref. Heine, Fl. Gabon 13: 221. 1966.

Habit. Tree 5 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Bai Hoku, Lidjombo, Ndakan. Phenology. Flower: March, April. Fruit: January, February, May.

Note. Many of the specimens of this genus appear to be misidentified. All the specimens cited as *T. laurifolia* by Heine (F.W.T.A. 2. 1963) from Nigeria and Cameroon appear to be *T. hensii*. Most of these were corrected by Heine (1966). Type not seen.

Specimens. Harris 184, 320, 1680; Fay 8323, 8598; Carroll 1008; Gentry 62572.

Thunbergia erecta (Benth.) T.Anderson vel sp. aff.

Ref. Heine, Fl. Gabon 13: 60. 1966.

Habit. Herb.

Habitat. Terra firma forest. Distribution. Guinea Bissau to Cameroon. Local distribution. Ndakan. Phenology. Flower: August.

Note. The 13 cm long leaves appear to be considerably larger than most specimens of this species.

Specimens. *Harris* 922, 986, 987.

Whitfieldia elongata (P.Beauv.) De Wild. & T.Durand

Ref. Evrard & Demillecamps, 1992: 90.

Habit. Herb, semi-scandent to 5 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Sudan, Tanzania and Angola. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: January, February.

Specimens. *Harris* 37, 4305; *Carroll* 1016, 1145, 1556.

Amaranthaceae

Celosia globosa Schinz

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 147. 1954.

Habit. Herb 30 cm high.

Habitat. Terra firma forest. Distribution. Nigeria to Uganda. Local distribution. Dzanga, Kongana, Ndakan. Phenology. Flower: April.

Fruit: August, October, December.

Specimens. *Harris* 496, 943, 3600, 4024.

Cyathula pedicellata C.B.Clarke

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 149. 1954.

Habit. Herb.

Habitat. Terra firma forest. *Distribution*. Sierra Leone to Uganda and Tanzania. *Local distribution*. Ndakan. *Phenology*. Fruit: February, August. Specimens. *Harris* 265, 916.

Sericostachys scandens Gilg & Lopr.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 151, 1954.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Nigeria to Uganda. Local distribution. Dzanga, Kongana. Phenology. Fruit: January, December. Specimens. Harris 3967, 4209.

Anacardiaceae

Antrocaryon klaineanum Pierre

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 728. 1958.

Habit Tree to 35 m

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Brazzaville) and Gabon. Local distribution. Bayanga, Kongana. Phenology. Fruit: January, June.

Note. The description of this species by Van der Veken (F.C.R.B. 9. 1960) is clearly that of *A. micraster*. *A. klaineanum* has glabrous leaflets and the fruit are no wider than 2.5 cm.

Specimens. Harris 4250, 5111.

Antrocaryon micraster A.Chev. & Guillaumin

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 728. 1958.

Habit. Tree to 35 m.

Habitat. Terra firma forest. Distribution. Sierra Leone to Central African Republic, Gabon and Uganda. Local distribution. Bai Hoku, Ndakan.

Note. Although this species occurs from Sierra Leone to Central African Republic and is recorded from Uganda it appears to be absent from central Congo (Kinshasa) where it is replaced by *Antrocaryon nannanii*. Specimens. *Harris* 493, 1396, 5551.

Lannea welwitschii (Hiern) Engl. var. welwitschii

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 732. 1958.

Habit. Tree to 30 m.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Uganda and Angola. Local distribution. Salkapa. Phenology. Flower: March, April. Specimens. Harris 4798.

Pseudospondias microcarpa (A.Rich.) Engl.

Ref. Kokwaro, F.T.E.A. (Anacardiaceae): 53. 1986.

Habit. Tree to 15 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Senegal to Sudan, Congo (Kinshasa), Angola and Zambia. Local distribution. Ndakan. Phenology. Flower: February, December. Fruit: February (immature), March (immature).

Note. It would appear to me that Keay (1956) might have been a little overenthusiastic in reducing *Pseudospondias longifolia* to a variety of this species as it appears to be consistently distinct.

Specimens. *Harris* 20, 1804, 1948, 2027.

Trichoscypha acuminata Engl.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 735. 1958.

Habit. Tree to 20 m.

Habitat. Terra firma forest. Distribution. Nigeria, Gabon and Congo (Kinshasa). Local distribution. Bai Hoku, Kongana, Ndakan.

Phenology. Flower: April, May.

Specimens. Harris 804, 1207, 1415, 4890; Carroll 1523; Remis 17.

Ancistrocladaceae

Ancistrocladus ealaensis J.Léonard

Ref. Léonard, Fl. Afr. Cent. (Ancistrocladaceae): 4. 1982.

Habit. Liana, 10 m high.

Habitat. Riparian and seasonally flooded forest. Distribution. Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: January, March (bud).

Specimens. Harris 197, 291, 643, 1424; Gentry 62663.

Ancistrocladus letestui Pellegr.

Ref. Pellegrin, 1951: 18.

Habit. Liana to 15 m high.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Gabon, Cameroon. Local distribution. Bayanga, Kongana, Ndakan.

Specimens. Harris 1350, 3504.

Annonaceae

Anonidium mannii (Oliv.) Engl. & Diels

Ref. Le Thomas, Fl. Gabon 16: 330. 1969.

Habit. Tree 30 m high.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest.

Distribution. Ghana to Congo (Kinshasa) and Gabon. Local distribution.

Bai Hoku, Ndakan. Phenology. Flower: February, March.

Specimens. Harris 324, 358; Fay 8606; Carroll 1055; Goldsmith 209; Remis 12-92.

Artabotrys likimensis De Wild.

Ref. Boutique, F.C.B. 2: 310. 1951.

Habit. Liana 4 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: May. Specimens. Harris 734.

Artabotrys rufus De Wild.

Ref. Le Thomas, Fl. Gabon 16: 147. 1969.

Habit. Liana 20 m high.

Habitat. Terra firma forest. *Distribution*. Cameroon to Congo (Kinshasa) and Gabon. *Local distribution*. Kongana. *Phenology*. Flower: June, July. Specimens. *Harris* 3384, 4454, 5034, 5304.

Artabotrys stenopetalus Engl. & Diels

Ref. Le Thomas, Fl. Gabon 16: 146. 1969.

Habit. Liana.

Habitat. Riparian forest on the Sangha River. Distribution. Ghana to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: April. Specimens. Harris 467.

Artabotrys thomsonii Oliv.

Ref. Le Thomas, Fl. Gabon 16: 136. 1969.

Habit. Liana 25 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa).Local distribution. Kongana. Phenology. Flower: February.Specimens. Harris 4405, 4533.

Artabotrys velutinus Scott-Elliot

Ref. Verdcourt, F.T.E.A. (Annonaceae): 60. 1971.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Guinea to Uganda. (appears absent from Gabon). Local distribution. Kongana. Phenology. Flower: June.

Note. Verdcourt (F.T.E.A. (Annonaceae). 1971) mentions some variation in material named A. boonei from Congo (Kinshasa), and Keay (F.W.T.A. 1: 1952) suggests possible synonomy with some West African species.
Specimens. Harris 5065.

Cleistopholis glauca (Benth.) Engl. & Diels vel sp. aff.

Ref. Le Thomas, Fl. Gabon 16: 88. 1969.

Habit. Tree.

Habitat. Terra firma and riparian forest. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Kongana, Ndakan.

Note. Fertile material is required to confirm the name for this species. **Specimens.** *Harris* 1379, 3477, 4739.

Cleistopholis patens (Benth.) Engl. & Diels

Ref. Le Thomas, Fl. Gabon 16: 91. 1969.

Habit. Tree 20 m high.

Habitat. Terra firma and riparian forest. Distribution. Sierra Leone to Uganda and Angola. Local distribution. Kongana, Ndakan. Phenology. Flower: January, February, April, November.

Specimens. Harris 1591, 1628, 1740, 1811, 4420; Fangonda 528.

Cleistopholis staudtii Engl. & Diels vel sp. aff.

Ref. Le Thomas, Fl. Gabon 16: 94. 1969.

Habit. Tree 10 m high.

Habitat. Abandoned logging roads. *Distribution*. Nigeria to Cameroon and Gabon. *Local distribution*. Kongana.

Note. Fertile material is required to confirm the name for this species. **Specimens.** *Harris* 4369, 4654, 4694.

Exellia scammopetala (Exell) Boutique

Ref. Le Thomas, Fl. Gabon 16: 262. 1969.

Habit. Liana 20 m high.

Habitat. Terra firma forest. Distribution. Gabon, Cameroon to Congo (Kinshasa). Local distribution. Dzanga, Kongana. Phenology. Fruit: October.

Specimens. Harris 3544, 4130.

Friesodielsia enghiana (Diels) Verdc.

Ref. Le Thomas, Fl. Gabon 16: 240. 1969. Synonym. Oxymitra obanensis (Baker f.) Sprague & Hutch.

Habit. Semi-scandent shrub.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Flower: January. Specimens. Harris 1721; Fay 8466.

Greenwayodendron suaveolens (Engl. & Diels) Verdc.

Ref. Verdcourt, F.T.E.A. (Annonaceae): 67. 1971. Synonym. Polyalthia suaveolens Engl. & Diels

Habit. Tree 25 m high.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest.
 Distribution. Nigeria to Congo (Kinshasa), Angola and Gabon. Local distribution.
 Bai Hoku, Kongana, Lidjombo, Ndakan. Phenology.
 Flower: January, October. Fruit: March, June, May, October.

Note. Recent molecular evidence (P. Bygrave, pers. comm.) supports the arguments put forward by Verdcourt (1969) for the separation of the genus *Greenwayodendron* from the east African and Asian species of *Polyalthia*.

Specimens. Harris 333, 1414, 1482, 3963, 3964, 4789, 5014, 5336, 5407; Fay 8554; Carroll 1002, 1036, 1105, 1112, 1515, 1548; Gentry 62675, 62684; Goldsmith 226.

Hexalobus crispiflorus A.Rich.

Ref. Richard, 1841: 43.

Habit. Tree 20 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Senegal to Congo (Kinshasa). Local distribution. Ndakan, Bayanga. Phenology. Flower: February, April, May. Fruit: August, November.

Note. Type not seen, but the description of the type locality by Le Thomas (Fl. Gabon 16. 1969) as: "près des eaux vives du Fouta-Djalon, Senegal" fits the vegetation type of this species. See notes under other species of Hexalobus.

Specimens. Harris 516, 558, 814, 883, 1518, 1814, 5591.

Hexalobus sp. A.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Local distribution. Ndakan, Bai Hoku. Phenology. Fruit: May, July.

Note. This species appears to differ from *H. crispiflorus* in habit, habitat, colour of dried leaves, length of petals, colour of petals, size of mericarps, shape of mericarps, smoothness of mericarps, woodiness of mericarps, indumentum of mericarps, size of seeds, presence of lenticels on the twigs and the impressed veins on the leaves. Tisserant and Sillans (1958) noted some of these differences when discussing variation in "*H. crispiflorus*". Le Thomas (pers. comm.) reports that Letouzey drew her attention to similar differences in Cameroonian specimens but she was not able to find differences in herbarium material and she has not recognised the taxa as separate. It appears to me that these are two species, but a careful study over the whole range would be necessary to elucidate the problem.

Specimens. Harris 1267, 1998, 3420, 3943, 4592, 5545; Fay 8865.

Isolona hexaloba (Pierre) Engl. & Diels

Ref. Le Thomas, Fl. Gabon 16: 35. 1969.

Habit. Tree 15 m high.

Habitat. Gilbertiodendron dewevrei and mixed species terra firma forest.
Distribution. Nigeria to Congo (Kinshasa) and Angola. Local distribution. Kongana, Lidjombo, Ndakan. Phenology. Flower: May.
Specimens. Harris 1322, 1339, 3417, 3970, 3982, 4187, 4336, 4894; Fay 8683; Gentry 62671.

Monanthotaxis diclina (Sprague) Verdc.

Ref. Verdcourt, 1971b: 31. Synonym. Popowia diclina Sprague Habit. Liana.

Habitat. Riparian forest. *Distribution*. Liberia to Congo (Kinshasa) and Angola. *Local distribution*. Kongana, Ndakan. *Phenology*. Flower: February, December. Fruit: June.

Specimens. Harris 3896, 4607, 5071.

Monodora angolensis Welw.

Ref. Le Thomas, Fl. Gabon 16: 346. 1969.

Habit. Tree 8 m high.

Habitat. Terra firma forest. Distribution. Gabon, Cameroon, Sudan to Angola, Zimbabwe, Tanzania and Uganda. Local distribution. Bayanga. Phenology. Flower: January.

Specimens. Harris 4225.

Monodora myristica (Gaertn.) Dunal

Ref. Le Thomas, Fl. Gabon 16: 342. 1969.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Gabon, Congo (Kinshasa), Kenya and Tanzania. Local distribution. Ndakan.

Phenology. Flower: April.

Specimens. Harris 538.

Monodora tenuifolia Benth.

Ref. Le Thomas, Fl. Gabon 16: 389. 1969.

Habit. Tree 10 m high.

Habitat. Terra firma forest. Distribution. Guinea to Angola, Gabon and Congo (Kinshasa). Local distribution. Dzanga, Bai Hoku, Kongana, Ndakan. Phenology. Flower: February, October, November. Fruit: April. Specimens. Harris 1533, 3531; Fangonda 507; Carroll 1038.

Pachypodanthium staudtii (Engl. & Diels) Engl. & Diels

Ref. Le Thomas, Fl. Gabon 16: 107. 1969.

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Fruit: April. Specimens. Harris 416, 694, 775; Gentry 62621.

Polyceratocarpus gossweileri (Exell) Paiva

Ref. Paiva, 1966: 49.

Habit. Tree 10 m high.

Habitat. Terra firma forest. Distribution. Angola to Congo (Kinshasa).

Local distribution. Ndakan.

Note. Fertile material is required to confirm this name.

Specimens. Harris 1870.

Uvaria poggei Engl. & Diels var. poggei

Ref. Boutique, F.C.B. 2: 288. 1951.

Habit. Liana 10 m high.

Habitat. Abandonded logging road. Distribution. Congo (Kinshasa). Local distribution. Kongana.

Specimens, Harris 4362.

Uvariastrum germainii Boutique

Ref. Le Thomas, Fl. Gabon 16: 367. 1969.

Habit. Tree 20 m.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Congo (Kinshasa). Local distribution. Bai Hoku, Kongana. Phenology. Fruit: August.

Note. Apparently the first record outside Congo (Kinshasa).

Specimens. Harris 5002; Remis 101-95.

Uvariastrum pierreanum Engl. & Diels

Ref. Le Thomas, Fl. Gabon 16: 292. 1969.

Habit. Tree 15 m high.

Habitat. Terra firma forest. Distribution. Ghana to Congo (Kinshasa).

Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: February.

Specimens. Harris 4641; Fangonda 503; Gentry 62685; Goldsmith 205; Remis 100-95.

Uvariodendron molundense (Engl. & Diels) R.E.Fr.

Ref. Le Thomas, Fl. Gabon 16: 280. 1969.

Habit. Tree 5 m high.

Habitat. Riparian forest. Distribution. Cameroon, Gabon and Congo (Brazzaville). Local distribution. Kongana, Salcapa. Phenology. Flower: March. Fruit: June.

Note. This is apparently the easternmost record of this species. **Specimens.** *Harris* 4850, 5112, 5504.

Uvariopsis congoensis Robyns & Ghesq.

Ref. Boutique, F.C.B. 2: 381. 1951.

Habit. Tree 3 m high.

Habitat. Riparian forest. Distribution. Congo (Kinshasa) to E. Africa. Local distribution. Kongana, Lidjombo, Salcapa, Ndakan. Phenology. Flower: March, November. Fruit: February, March, May, June.

Note. This appears to be the westernmost record of this species. **Specimens.** *Harris* 662, 1512, 4485, 4772, 4821, 5084, 5511.

Uvariopsis solheidii (De Wild.) Robyns & Ghesq.

Ref. Le Thomas, Fl. Gabon 16: 298. 1969.

Habit. Tree 5 m high.

Habitat. Terra firma forest. Distribution. Cameroon and Gabon to Congo (Kinshasa). Local distribution. Bai Hoku, Kongana, Lidjombo.

Phenology. Flower: March, May, December. Fruit: April, May.

Specimens. Harris 4170, 4773, 5016; Fay 8384; Fangonda 513; Carroll 1270.

Xylopia acutiflora (Dunal) A.Rich.

Ref. Le Thomas, Fl. Gabon 16: 169. 1969.

Habit. Tree 5 m high.

Habitat. Seasonally flooded sedge meadow. Distribution. Sierra Leone to Sudan, Zimbabwe and Angola. Local distribution. Ndakan (Njeke).

Phenology. Flower: May.

Specimens. Harris 607.

Xylopia aethiopica (Dunal) A.Rich.

Ref. Le Thomas, Fl. Gabon 16: 165. 1969.

Habit. Tree 15 m high.

Habitat. Terra firma forest. Distribution. Senegal to Sudan, Tanzania,

Mozambique, Zambia and Angola. Local distribution. Kongana,

Ndakan. *Phenology*. Flower: January, April, September (bud). Fruit: April, June, July.

Specimens. *Harris* 447, 479, 536, 1132, 3478, 3506, 4354, 4714, 5113.

Xylopia aurantiiodora De Wild. & T.Durand

Ref. Le Thomas, Fl. Gabon 16: 158. 1969.

Habit. Tree 5 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Fruit: May. Specimens. Harris 752.

Xylopia chrysophylla Louis ex Boutique

Ref. Boutique, F.C.B. 2: 323. 1951.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Congo (Kinshasa). Local distribution. Bai Hoku, Ndakan, Kongana. Phenology. Fruit: July. Specimens. Harris 4047, 4496, 4531, 4591, 4712, 5553; Fay 8535, 8546.

Xylopia gilbertii Boutique

Ref. Boutique, F.C.B. 2: 333. 1951.

Habit. Tree 15 m high.

Habitat. Terra firma forest. Distribution. Congo (Kinshasa). Local distribution. Kongana. Phenology. Fruit: May.

Note. This appears to be the rarest species of *Xylopia* in this area. **Specimens.** *Harris* 4406, 5535.

Xylopia hypolampra Mildbr.

Ref. Le Thomas, Fl. Gabon 16: 181. 1969.

Habit. Tree 20 m high.

Habitat. Forest and abandoned logging roads. Distribution. Cameroon to Congo (Kinshasa) and Gabon. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Fruit: February.

Specimens. Harris 222, 266, 3473, 4361, 4683; Carroll 1023, 1050.

Xylopia parviflora (A.Rich.) Benth.

Ref. Le Thomas, Fl. Gabon 16: 175. 1969.

Habit. Tree 5 m high.

Habitat. Riparian forest on the Sangha River. *Distribution.* Senegal to Sudan and South Africa. *Local distribution.* Ndakan. *Phenology.*

Flower: March, November. Fruit: May.

Specimens. Harris 757, 1535; Fay 8307.

Xylopia phloiodora Mildbr.

Ref. Le Thomas, Fl. Gabon 16: 184. 1969.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Cameroon (Kribi), Gabon to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Fruit: June. July.

Specimens. Harris 845, 1993, 2011, 3458, 3630, 4077, 5376, 5394; Fay 8457.

Apocynaceae

Alafia caudata Stapf

Ref. Pichon, 1954: 164.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Gabon to Angola, Zimbabwe and Tanzania. Local distribution. Bayanga, Kongana. Phenology. Flower: March. Fruit: March.

Specimens. *Harris* 4103, 4530, 4751, 5517.

Alafia multiflora (Stapf) Stapf

Ref. Huber, F.W.T.A. 2: 73. 1963.

Habit. Liana.

Habitat. Forest. Distribution. Ghana to Sudan, Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Flower: November. Specimens. Harris 1598.

Alstonia boonei De Wild.

Ref. De Jong, 1979: 5.

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Senegal to Ethiopia and Angola. Local distribution. Bai Hoku, Lidjombo, Ndakan. Phenology. Flower: January, February, November.

Specimens. Harris 22, 169, 803, 1522, 1555; Fay 8572; Carroll 1027, 1033, 1549.

Alstonia congensis Engl.

Ref. De Jong, 1979: 9

Habit. Tree to 25 m high.

Habitat. In streams and permanent swamps. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: May.Specimens. Harris 667.

Ancylobotrys robusta Pierre

Ref. Vonk & al., 1994: 22.

Habit. Liana.

Habitat. Riparian forest on the Sangha River. Distribution. Nigeria to Zambia. Local distribution. Ndakan. Phenology. Flower: November. Specimens. Harris 1574.

Ancylobotrys scandens (Schumach. & Thonn.) Pichon

Ref. Vonk & al., 1994: 25.

Habit. Liana.

Habitat. Riparian forest. Distribution. Guinea to Burundi and Angola.Local distribution. Ndakan. Phenology. Flower: August.Specimens. Harris 948.

Baissea axillaris (Benth.) Hua

Ref. van Dilst, 1995: 94.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Senegal to Congo (Kinshasa) and Angola. Local distribution. Salcapa. Phenology. Flower: March.Specimens. Harris 4807.

Baissea major (Stapf) Hiern

Ref. van Dilst, 1995: 128.

Habit. Liana.

Habitat. Terra firma forest. *Distribution*. Cameroon to western Kenya and Angola.

Specimens. Harris 460, 1805, 2037.

Baissea multiflora A.DC.

Ref. van Dilst, 1995: 130.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Senegal to Central African Republic, Congo (Kinshasa) and Angola. Local distribution. Kongana, Ndakan. *Phenology*. Flower: January. February.

Specimens, Harris 1747, 4481.

Baissea subrufa Stapf

Ref. van Dilst, 1995: 143.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Kongana, Bayanga to Lidjombo. Phenology. Flower: March, June, October.

Note. Not recorded from Central African Republic by van Dilst (1995). **Specimens.** *Harris* 3514, 4755, 5130.

Callichilia bequaertii De Wild.

Ref. Beentje, 1978: 12. Synonym. Callichilia macrocalyx Schellenb. ex Markgr.

Habit. Shrub.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Lidjombo. Phenology. Flower: January, March. Fruit: September.

Specimens. *Harris* 172, 340, 1253, 4785.

Clitandra cymulosa Benth.

Ref. Leeuwenberg & Berndsen, 1988: 159.

Habit. Liana.

Habitat. Terra firma forest. *Distribution*. Cameroon to Uganda and NE Tanzania. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: January, February, March, May. Fruit: February (immature), July. **Specimens.** Harris 46, 844, 3958, 4483, 4511, 4896, 5493; Carroll 1024, 1048; Remis 113-95.

Cyclocotyla congolensis Stapf

Ref. van der Ploeg. 1985: 61.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: March. Specimens. Harris 1989.

Funtumia africana (Benth.) Stapf

Ref. Zwetsloot, 1981: 16.

Habit. Tree 20 m high.

Habitat. Terra firma and riparian forest. Distribution. Senegal to Kenya, Zimbabwe and Angola. *Local distribution*. Kongana. Specimens, Harris 5003.

Funtumia elastica (Preuss) Stapf

Ref. Zwetsloot, 1981: 25.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Guinea to Sudan and Tanzania.

Local distribution. Bai Hoku, Kongana, Lidjombo, Ndakan. Phenology.

Flower: January, March, November, December. Fruit: January, February, November.

Specimens. Harris 33, 155, 204, 1585, 5343; Fay 8615; Carroll 1021, 1034, 1065, 1095, 1033A.

Hunteria ballayi Hua

Ref. Omino, 1996: 90.

Habit. Shrub.

Habitat. Terra firma and seasonally flooded forest. Distribution. Gabon,Cameroon. Local distribution. Bai Hoku, Kongana, Lidjombo, Salcapa,Ndakan. Phenology. Flower: February, March, April, May. Fruit:January, March, October.

Specimens. Harris 63, 231, 547, 639, 4855, 4978; Fay 8835; Carroll 1151, 1498, 1527, 1530.

Landolphia incerta (K.Schum.) J.G.M.Persoon

Ref. Persoon & al., 1992: 94.

Habit. Liana.

Habitat. Seasonally flooded forest. Distribution. Guinea Bissau to Congo (Kinshasa), Angola and Zambia. Local distribution. Ndakan. Phenology. Flower: November. Fruit: May (immature).

Specimens. Harris 646, 1545.

Landolphia owariensis P.Beauv.

Ref. Persoon & al., 1992: 153.

Habit. Liana.

Habitat. Gilbertiodendron dewevrei and riparian forest. Distribution. Senegal to Sudan, Malawi, Zambia and Tanzania. Local distribution.

Ndakan. Phenology. Flower: February. Fruit: October.

Specimens. Harris 1883; Fay 8662.

Landolphia pyramidata (Pierre) Pers.

Ref. Persoon & al. 1992: 167.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Gabon and Central African Republic Local distribution. Kongana. Phenology. Fruit: June.

Note. This is the first record outside Gabon. Material was identified by Dr. Leeuwenberg.

Specimens. Harris 5094, 5099.

Landolphia robustior (K.Schum.) J.G.M.Persoon

Ref. Persoon & al., 1992: 172.

Habit. Liana.

Habitat. Terra firma and riparian forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Kongana, Ndakan.

Phenology. Flower: January, February, March.

Specimens. *Harris* 1795, 4460, 4508, 5401, 5520.

Malouetia bequaertiana Woodson

Ref. van der Ploeg, 1985: 73.

Habit. Shrub 2 m high.

Habitat. Edge of Raphia swamp. Distribution. Nigeria, Gabon and Congo (Kinshasa). Local distribution. Salcapa. Phenology. Flower: March (bud).

Specimens. Harris 4847.

Motandra guineensis (Thonn.) A.DC.

Ref. de Kruif, 1983: 5.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Guinea to Sudan, Uganda and Angola. Local distribution. Kongana, Salcapa. Phenology. Flower: February, March.

Specimens. Harris 5452, 5494.

Oncinotis gracilis Stapf

Ref. de Kruif, 1985: 17.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Sierra Leone to Gabon and Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: April. Specimens. Harris 443.

Orthopichonia barteri (Stapf) H.Huber

Ref. Vonk, 1989: 31.

Habit. Liana.

Habitat. Seasonally flooded sedge meadow. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: September.

Specimens. Harris 1195.

Picralima nitida (Stapf) T.Durand & H.Durand

Ref. Omino, 1996: 128.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Gabon and Uganda. Local distribution. Kongana, Ndakan. Phenology. Flower: April, July.

Specimens. Harris 504, 1223, 1330, 3418.

Pleiocarpa pycnantha (K.Schum.) Stapf

Ref. Omino, 1996: 146.

Habit. Shrub.

Habitat. Terra firma forest.

Distribution. Senegal to Kenya and Mozambique. Local distribution.

Bayanga, Ndakan. Phenology. Flower: March, February.

Specimens. Harris 1898, 4758.

Pycnobotrya nitida Benth.

Ref. van der Ploeg, 1983: 14.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa).

Local distribution. Dzanga, Lidjombo, Salcapa, Ndakan. Phenology.

Flower: February. Fruit: June, November.

Specimens. *Harris* 221, 1573, 3328, 4058, 5454; *Fay* 8327, 8425.

Rauvolfia caffra Sond.

Ref. van Dilst & Leeuwenberg, 1991: 24.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Togo to Kenya and South Africa.

Local distribution. Salcapa. Phenology. Flower: March.

Specimens. Harris 4801.

Rauvolfia mannii Stapf

Ref. van Dilst & Leeuwenberg, 1991: 38.

Habit. Shrub to 1 m high.

Habitat. Terra firma forest in shade. Distribution. Liberia to Kenya,

Malawi. Local distribution. Ndakan, Kongana, Dzanga. Phenology.

Flower: March, May. Fruit: January, March, October.

Specimens. Harris 145, 1980, 3551, 4265, 4996.

Rauvolfia vomitoria Afzel.

Ref. van Dilst & Leeuwenberg, 1991: 60.

Habit. Tree 10 m high.

Habitat. Old fields and roadsides, occasionally in light gaps. Distribution.

Senegal to Sudan and Tanzania. *Local distribution*. Bayanga, Ndakan, Lidjombo, Salcapa. *Phenology*. Flower: March. Fruit: June, July.

Specimens. *Harris* 800, 904, 3319, 4812, 5462; *Fay* 8561.

Saba comorensis (Bojer) Pichon

Ref. Leeuwenberg & van Dilst, 1989: 190.

Habit. Liana.

Habitat. Riparian forest. Distribution. Senegal to Madagascar. Local distribution. Ndakan. Phenology. Flower: February, September, December

Specimens. Harris 1057, 1652, 1808, 1882.

Strophanthus preussii Engl. & Pax

Ref. Beentje, 1982: 125.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Guinea to Uganda, Tanzania and Angola. Local distribution. Bayanga. Phenology. Flower: March. Specimens. Harris 5461.

Strophanthus sarmentosus DC.

Ref. Beentje, 1982: 131.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Senegal to Uganda. Local distribution. Ndakan. Phenology. Flower: January.Specimens. Harris 1766, 1767.

Tabernaemontana crassa Benth.

Ref. Leeuwenberg, 1991: 21.

Habit. Tree 10 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa), Gabon and Angola.

Specimens. *Harris* 142, 342, 344.

Tabernaemontana eglandulosa Stapf

Ref. Leeuwenberg, 1991: 26.

Habit. Liana.

Habitat. Riparian forest. Distribution. Benin to Congo (Kinshasa) and Angola. Local distribution. Bayanga, Dzanga. Phenology. Flower: March, June, October.

Specimens. Harris 3317, 3585, 4756.

Tabernaemontana penduliflora K.Schum.

Ref. Leeuwenberg, 1991: 57.

Habit. Tree 10 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon.

Specimens. Harris 361.

Tabernanthe iboga Baill.

Ref. Vonk & Leeuwenberg, 1989: 8.

Habit. Shrub.

Habitat. Light gaps and old fields. Distribution. Cameroon, Gabon and Congo (Kinshasa). Local distribution. Bayanga, Dzanga, Ndakan.

Phenology, Flower: January, June, October, Fruit: June, October, **Specimens.** *Harris* 873, 3303, 3526, 4264; *Fay* 8419.

Vahadenia laurentii (De Wild.) Stapf

Ref. Haegens, 1994: 323.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa) and Angola. Local distribution. Ndakan. Phenology. Fruit: July, August, November, December,

Specimens, Harris 7, 1021, 1552; Fav 8545.

Voacanga africana Stapf

Ref. Leeuwenberg, 1985: 12.

Habit. Shrub 4 m high.

Habitat. Secondary forest, by old fields. Distribution. Sierra Leone to Sudan, Malawi and Angola. Local distribution. Bayanga, Salcapa. Phenology. Flower: March.

Specimens. Harris 4757, 4841.

Aristolochiaceae

Pararistolochia promissa (Mast.) Keay

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 79, 1954.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Ghana to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: February. Specimens. Harris 1946.

Asclepiadaceae

Batesanthus purpureus N.E.Br.

Ref. Bullock, F.W.T.A. 2: 82. 1963.

Habit. Vine 2 m high.

Habitat. Terra firma forest. Distribution. Nigeria and Cameroon. Local distribution. Kongana. Phenology. Flower: May. Specimens. Harris 4935.

Gongronema latifolium Benth.

Ref. Bullock, F.W.T.A. 2: 98. 1963.

Habit. Vine 2 m high.

Habitat. Light gaps in terra firma forest and roadside vegetation.

Distribution. Guinea to Uganda. Local distribution. Salcapa, Ndakan.

Phenology. Flower: March. Fruit: November.

Specimens. *Harris* 915, 4808; *Fay* 8798.

Gymnema sylvestre (Retz.) Schult.

Ref. Bullock, F.W.T.A. 2: 95. 1963.

Habit. Vine. Riparian forest.

Habitat. Distribution. Mauritania to South Africa and India. Local distribution. Ndakan. Phenology. Flower: December.

Specimens. Harris 1654.

Marsdenia magniflora P.T.Li

Ref. Li, 1994: 64.

Habit. Vine 5 m high.

Habitat. Roadside vegetation. Local distribution. Kongana.

Note. The specific epithet is spelt "magriflora" by Li (1994). I assume this a typographical error for "magniflora" since the previously used illegitimate homonym was *Marsdenia grandiflora*.

Specimens. Harris 4394.

Neoschumannia kamerunensis Schltr.

Ref. Meve, 1995: 235.

Habit. Liana 10 m high.

Habitat. Roadside vegetation by stream. Distribution. Côte d'Ivoire and SW Cameroon. Local distribution. Kongana. Phenology. Flower: December.

Note. This is the first specimen collected in the Central African Republic, previously the easternmost record was from Mount Kupé, Cameroon (Harris & Goyder 1997).

Specimens. Harris 4203.

Periploca nigrescens Afzel.

Ref. Bullock, F.W.T.A. 2: 82. 1963. Synonym. Parquetina nigrescens (Afzel.) Bullock Habit. Liana.

Habitat. Terra firma forest. Distribution. Senegal to Local distribution. Ndakan. Phenology.

Specimens. Harris 988.

Telosma africana (N.E.Br.) N.E.Br.

Ref. Bullock, F.W.T.A. 2: 97. 1963.

Habit. Vine 2 m high.

Habitat. Roadside vegetation. Distribution. Guinea to Burundi, Sudan, Zimbabwe and Angola. Local distribution. Dzanga road to Bayanga. Phenology. Flower: May.

Note. Citations of this name with the author Coville appear to be incorrect because the article by Coville (1905) does not contain this combination. The genus *Telosma* is treated as feminine by the author of the name (Coville 1905), so the correct epithet for this species is *africana* not *africanum*.

Specimens. Harris 2293.

Balanitaceae

Balanites wilsoniana Dawe & Sprague

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 364. 1958.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Uganda and Angola. Local distribution. Ndakan.

Specimens. Fay 8442.

Balanophoraceae

Thonningia sanguinea Vahl

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 666. 1958.

Habit. Parasitic herb.

Habitat. Terra firma forest. Distribution. Sierra Leone to Sudan, Congo (Kinshasa) and Angola. Local distribution. Ndakan. Phenology. Flower: September.

Specimens. Harris 1170.

Balsaminaceae

Impatiens irvingii Hook.f.

Ref. Grey-Wilson, Fl. Cam. 22: 13. 1981.

Habit. Herb.

Habitat. Streams and swamps. Distribution. Tropical Africa. Local distribution. Dzanga, Ndakan. Phenology. Flower: February, October, November.

Specimens. Harris 1609, 1892, 3589.

Impatiens niamniamensis Gilg

Ref. Grey-Wilson, Fl. Cam. 22: 30. 1981.

Habit. Herb.

Habitat. Streams and swamps. *Distribution*. Cameroon to Sudan, Tanzania and Angola. *Local distribution*. Dzanga, Ndakan. *Phenology*. Flower: February. August. October.

Specimens. Harris 931, 1828, 3530.

Bignoniaceae

Fernandoa adolfi-friderici (Gilg & Mildbr.) Heine

Ref. Gentry, Fl. Cam. 27: 28. 1984.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon and Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: January, February, May.

Specimens. *Harris* 56, 4556; *Fay* 8389.

Kigelia africana (Lam.) Benth. vel sp. aff.

Ref. Gentry, Fl. Cam. 27: 32. 1984.

Habit. Tree 3 m high.

Habitat. Light gaps in $terra\ firma$ forest and riparian forest. Distribution.

 $Tropical\ Africa.\ Local\ distribution.\ Kongana,\ Ndakan.\ Phenology.$

Flower: June, September.

Note. Across the range of the genus the forest specimens of *Kigelia* appear to differ from the savanna ones and they may be different species. Specimens. *Harris* 1136, 5115.

Markhamia lutea (Benth.) K.Schum.

Ref. Gentry, Fl. Cam. 27: 36. 1984.

Habit. Tree 10 m high.

Habitat. Old fields. Distribution. Ghana to Congo (Kinshasa). Local distribution. Lidjombo. Phenology. Fruit: January.

Specimens. Harris 4256.

Markhamia tomentosa (Benth.) K.Schum. ex Engl.

Ref. Gentry, Fl. Cam. 27: 38. 1984.

Habit. Tree to 20 m high.

Habitat. Old fields and terra firma forest. Distribution. Guinea to Congo (Kinshasa). Local distribution. Bayanga, Ndakan. Phenology. Flower: January, August, December. Fruit: January, February, May, March.
 Specimens. Harris 41, 201, 212, 353, 693, 713, 935, 957, 3919, 4281.

Spathodea campanulata P.Beauv.

Ref. Gentry, Fl. Cam. 27: 44. 1984.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Guinea to Congo (Kinshasa) and Angola. Local distribution. Ndakan. Phenology. Flower: December.Specimens. Harris 1648.

Bombacaceae

Bombax buonopozense P.Beauv.

Ref. Villiers, Fl. Cam. 19: 84. 1975.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa). Local distribution. Lidjombo. Phenology. Flower: January. Specimens. Harris 3369.

Ceiba pentandra (L.) Gaertn.

Ref. Villiers, Fl. Cam. 19: 76. 1975.

Habit. Tree 35 m high.

Habitat. Terra firma and seasonally flooded forest, and on cleared land.

Distribution. Pantropical. Local distribution. Lidjombo, Ndakan.

Phenology. Flower: February, March.

Specimens. *Harris* 334, 1947; *Fay* 8754.

Boraginaceae

Cordia aurantiaca Baker

Ref. Taton, F.C.R.B. (Boraginaceae): 6. 1971.

Habit. Shrub 2 m high.

Habitat. Old fields. Distribution. Nigeria to Gabon, Angola and Congo (Kinshasa). Local distribution. Bayanga. Phenology. Flower: June. Specimens. Harris 3316.

Cordia millenii Baker

Ref. Taton, F.C.R.B. (Boraginaceae): 10. 1971.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Guinea to Gabon, Sudan, Tanzania and Angola. Local distribution. Ndakan.

Specimens. Harris 1445, 1475.

Cordia platythyrsa Baker vel sp. aff.

Ref. Hutchinson & Dalziel, F.W.T.A. 2: 321. 1963.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Cameroon. Local distribution. Ndakan.

Specimens. Harris 2000.

Ehretia cymosa Thonn.

Ref. Taton, F.C.R.B. (Boraginaceae): 22. 1971.

Habit. Tree 12 m high.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Fruit: March. Specimens. Harris 2007.

Burseraceae

Dacryodes edulis (G.Don) H.J.Lam

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 696. 1958.

Habit. Tree 20 m high.

Habitat. Terra firma forest, also planted. *Distribution*. Sierra Leone to Congo (Kinshasa) and Gabon. *Local distribution*. Kongana, Ndakan.

Phenology. Flower: Mach. Fruit: June (immature).

Specimens. *Harris* 1389, 2035, 3580, 5085, 5124.

Santiria trimera (Oliv.) Aubrév.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 696. 1958.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa) and Gabon. Local distribution. Kongana, Ndakan.

Specimens. Harris 1305, 4178, 5123.

Cactaceae

Rhipsalis cassutha Gaertn.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 221. 1954.

Habit. Epiphyte.

Habitat. Riparian forest. Distribution. Pantropical. Local distribution. Ndakan.

Specimens. Harris 842.

Capparaceae

Cleome afrospina Iltis

Ref. Kers, Fl. Cam. 29: 40. 1986.

Habit. Herb.

Habitat. Open ground and sandbanks by water. *Distribution*. Nigeria to Congo (Kinshasa). *Local distribution*. Ndakan. *Phenology*. Flower: May, June.

Specimens. Harris 738, 834.

Cleome rutidosperma DC.

Ref. Kers, Fl. Cam. 29: 57. 1986. Synonym. Cleome ciliata Schumach. & Thonn. Habit. Herb.

Habitat. Weed in fields. Distribution. Senegal to Angola and Uganda. Local distribution. Ndakan. Phenology. Flower: March. Fruit: March. Specimens. Harris 308.

Euadenia alimensis Hua

Ref. Kers, Fl. Cam. 29: 74. 1986.

Habit. Shrub.

Habitat. Riparian forest on the Sangha River. Distribution. Cameroon to Uganda. Local distribution. Ndakan. Phenology. Flower: November. Fruit: November.

Specimens. Harris 514, 999, 1517.

Pentadiplandra brazzeana Baill.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 651. 1958.

Habit. Liana 3 m high.

Habitat. Secondary forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Kongana, Lidjombo. Phenology. Flower: February. Fruit: February, June.

Specimens. Harris 3370, 4524.

Ritchiea aprevaliana (De Wild. & T.Durand) Wilczek

Ref. Kers, Fl. Cam. 29: 96. 1986.

Habit. Shrub 2 m high.

Habitat. Gilbertiodendron dewevrei and mixed species terra firma forest. Distribution. Cameroon to Uganda. Local distribution. Bai Hoku, Kongana, Lidjombo, Ndakan. Phenology. Flower: January, February, March, August. Fruit: February, March, April, May.

Specimens. Harris 656, 1029, 1733, 1879, 1975, 4439, 4453, 4857, 4984, 875A; Fay 8768; Carroll 1031, 1525.

Ritchiea capparoides (Andrews) Britten

Ref. Kers, Fl. Cam. 29: 113. 1986.

Habit. Shrub.

Habitat. Light gaps in *terra firma* forest and riparian forest. *Distribution*. Sierra Leone to Tanzania. Local distribution. Ndakan. Phenology.

Flower: February, September.

Specimens, Harris 1049, 1920.

Celastraceae

Apodostigma pallens (Planch. ex Oliv.) Wilczek var. dummeri N.Hallé Ref. Hallé, Fl. Cam. 32: 158. 1990.

Habit, Liana.

Habitat. Terra firma forest. Distribution. Cameroon to Uganda. Local distribution. Lidjombo to Salcapa. Phenology. Flower: March. Specimens. Harris 4802.

Campylostemon angolense Welw. ex Oliv.

Ref. Hallé, Fl. Cam. 32: 226. 1990.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Liberia to Uganda. Local distribution. Kongana. Phenology. Flower: June. Specimens. Harris 5092.

Campylostemon bequaertii De Wild.

Ref. Hallé, Fl. Cam. 32: 228. 1990.

Habit. Liana.

Habitat. Riparian forest. Distribution. Gabon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: April.

Note. The validity of this species has been questioned by Hallé (Fl. Cam. 32. 1990) which he suggests might be better treated as a synonym of C. warneckeanum, however more collections are necessary to resolve this auestion.

Specimens, Harris 565.

Campylostemon laurentii De Wild. vel sp. aff.

Ref. Hallé, Fl. Cam. 32: 230. 1990.

Habit. Liana.

Habitat. Riparian forest. Distribution. Liberia to Tanzania. Local distribution. Ndakan. Phenology. Flower: November.

Specimens. Harris 1504.

Cuervea isangiensis (De Wild.) N.Hallé

Ref. Hallé, Fl. Cam. 32: 182. 1990.

Habit. Liana.

Habitat. Riparian forest. Distribution. Cameroon, Gabon to Congo(Kinshasa). Local distribution. Ndakan. Phenology. Flower: September.Specimens, Harris 1051.

Cuervea macrophylla (Vahl) Wilczek ex N.Hallé

Ref. Hallé, Fl. Cam. 32: 184. 1990.

Habit. Liana.

Habitat. Riparian forest. Distribution. Guinea to Congo (Kinshasa) and Angola. Local distribution. Ndakan. Phenology. Flower: April. Specimens. Harris 557.

Elachyptera holtzii (Loes. ex Harms) Wilczek ex N.Hallé

Ref. Hallé, Fl. Cam. 32: 144. 1990.

Habit. Liana.

Habitat. Riparian forest. Distribution. Cameroon to Angola and Tanzania.Local distribution. Ndakan. Phenology. Flower: April, May. Fruit: November.

Specimens. Harris 462, 810, 1515.

Helictonema velutinum (Afzel.) Pierre ex N.Hallé

Ref. Hallé, Fl. Cam. 32: 138. 1990.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Guinea to Sudan and Uganda. Local distribution. Kongana, Ndakan. Phenology. Flower: March, June, August.

Specimens. Harris 276, 1013, 3324, 4056.

Hippocratea myriantha Oliv.

Ref. Hallé, Fl. Cam. 32: 216. 1990.

Habit. Liana.

Habitat. Riparian forest. Distribution. Guinea to Congo (Kinshasa) and Angola. Local distribution. Kongana. Phenology. Flower: June.Specimens. Harris 5066.

Loeseneriella apiculata (Welw. ex Oliv.) N.Hallé ex Wilczek

Ref. Hallé, Fl. Cam. 32: 194. 1990.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa), Gabon and Angola. Local distribution. Kongana, Ndakan. Phenology. Flower: January, March, May, June, December.

Specimens. Harris 712, 3392, 4011, 4353, 5131, 5363; Fangonda 501.

Loeseneriella clematoides (Loes.) Wilczek ex N.Hallé

Ref. Hallé, Fl. Cam. 32: 196. 1990.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Guinea to Angola, Gabon, Uganda and Malawi. Local distribution. Ndakan. Phenology. Flower:

February.

Specimens. Harris 1857, 1945.

Loeseneriella crenata (Klotzsch) Wilczek ex N.Hallé

Ref. Hallé, Fl. Cam. 32: 193, 1990.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Cameroon to Angola, Ethiopia and Madagascar. Local distribution. Kongana. Phenology. Flower: June. Specimens. Harris 3377, 5105.

Pristimera graciflora (Welw. ex Oliv.) N.Hallé

Ref. Hallé, Fl. Cam. 32: 173. 1990.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Cameroon to Tanzania and Angola. Local distribution. Kongana.

Specimens. Harris 4435.

Pristimera preussii (Loes.) N.Hallé

Ref. Hallé, Fl. Cam. 32: 174. 1990.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Kongana. Phenology. Flower: May.

Specimens. Harris 4962.

Reissantia indica (Willd.) N.Hallé

Ref. Hallé, Fl. Cam. 32: 152, 1990.

Habit. Liana.

Habitat. Old fields and riparian forest. Distribution. Pantropical. Local distribution. Ndakan. Phenology. Flower: May, September. Fruit: September.

Specimens, Harris 600, 1052.

Salacia cerasifera Welw. ex Oliv.

Ref. Hallé, Fl. Cam. 32: 85. 1990.

Habit. Liana.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Guinea to Sudan, Angola, Zambia and Tanzania. Local distribution. Ndakan. Phenology. Flower: October.

Specimens, Harris 1499.

Salacia erecta (G.Don) Walp. vel sp. aff.

Ref. Hallé, Fl. Cam. 32: 86. 1990.

Habit. Liana.

Habitat. Riparian forest. Distribution. Guinea to Gabon, Zambia, Angola and Tanzania. Local distribution. Ndakan. Phenology. Flower: July. Specimens. Harris 856.

Salacia laurentii De Wild. vel sp. aff.

Ref. Hallé, Fl. Cam. 32: 132. 1990.

Habit. Liana.

Habitat. Riparian forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: April, May. Fruit: April. May.

Specimens. Harris 463, 733.

Salacia letestui Pellegr.

Ref. Hallé, Fl. Cam. 32: 184. 1990.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Guinea to Congo (Kinshasa). Local distribution. Kongana. Phenology. Flower: May. Specimens. Harris 4910, 5012.

Salacia staudtiana Loes. var. cerasiocarpa (Wilczek) N.Hallé

Ref. Hallé, Fl. Cam. 32: 46. 1990.

Habit. Shrub.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: October. Specimens. Harris 3915, 3921.

Salacia sp. A.

Habit, Liana.

Habitat. Riparian forest. *Local distribution*. Ndakan. *Phenology*. Flower: February.

Specimens. Harris 1839.

Salacia sp. B.

Habit. Liana.

Habitat. Terra firma forest. Local distribution. Kongana. Phenology. Flower: May.

Specimens. Harris 4944.

Salacighia letestuana (Pellegr.) Blakelock

Ref. Hallé, Fl. Cam. 32: 10. 1990.

Habit. Liana.

Habitat. Seasonally flooded and riparian forest. *Distribution*. Côte d'Ivoire to Uganda and Gabon. *Local distribution*. Ndakan. *Phenology*. Flower: June. Fruit: September.

Specimens. Harris 1062; Fay 8430.

Chrysobalanaceae

Dactyladenia dewevrei (De Wild. & T.Durand) Prance & F.White *Ref.* Prance & White, 1979: 484.

Habit. Liana or small tree.

Habitat. Riparian forest. Distribution. Cameroon to Congo (Kinshasa).Local distribution. Ndakan. Phenology. Flower: February, August, September.

Specimens. *Harris* 950A, 1046, 1833.

Licania elaeosperma (Mildbr.) Prance & F.White

Ref. Letouzey & White, Fl. Cam. 20: 68. 1978.

Habit. Tree 25 m high.

Habitat. Riparian forest. Distribution. Sierra Leone to Gabon & Congo (Kinshasa). Local distribution. Bai Hoku, Dzanga. Phenology. Fruit: July (immature), October.

Specimens. Harris 2406, 3538.

Maranthes glabra (Oliv.) Prance

Ref. Letouzey & White, Fl. Cam. 20: 108. 1978.

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa), Gabon and Angola. Local distribution. Kongana, Ndakan. Phenology. Flower: May, August.

Specimens. Harris 2411, 3928, 4162, 4949.

Parinari excelsa Sabine

Ref. Letouzey & White, Fl. Cam. 20: 130. 1978.

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Senegal to Congo (Kinshasa), Angola and Mozambique. Local distribution. Bayanga, Kongana, Ndakan. Phenology. Fruit: January.

Specimens. Harris 171, 1327, 1402, 1992, 3326, 3938, 5285.

Combretaceae

Combretum auriculatum Engl. & Diels

Ref. Jongkind, Fl. Gabon 35: 14. 1999.

Habit. Liana.

Habitat. Riparian forest. *Distribution*. Cameroon, Gabon to Angola and Congo (Kinshasa). *Local distribution*. Ndakan. *Phenology*. Flower: February.

Specimens. Harris 1923.

Combretum cinereopetalum Engl. & Diels

Ref. Jongkind, Fl. Gabon 35: 21, 1999.

Habit. Liana.

Habitat. Secondary *terra firma* forest. *Distribution*. Cameroon to Angola and Uganda. *Local distribution*. Ndakan. *Phenology*. Flower: March. Specimens. *Harris* 271.

Combretum conchipetalum Engl. & Diels

Ref. Jongkind, Fl. Gabon 35: 29. 1999.

Habit. Liana.

Habitat. Riparian forest. *Distribution*. Guinea Bissau to Congo (Kinshasa) and Gabon. *Local distribution*. Ndakan. *Phenology*. Flower: November. Specimens. *Harris* 1546, 1569.

Combretum demeusii De Wild.

Ref. Jongkind, Fl. Gabon 35: 33. 1999.

Habit. Liana.

Habitat. Riparian forest. Distribution. Cameroon to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Flower: November. Specimens. Harris 1549.

Combretum latialatum Engl. ex Engl. & Diels

Ref. Jongkind, Fl. Gabon 35: 53. 1999.

Habit. Liana.

Habitat. Marshy clearing in forest. Distribution. Ghana to Congo (Kinshasa) and Angola. Local distribution. Ndakan. Phenology. Flower: September. Fruit: September.(immature).

Specimens. Harris 1162.

Combretum marginatum Engl. & Diels

Ref. Jongkind, Fl. Gabon 35: 58, 1999.

Habit. Liana.

Habitat. Riparian forest. Distribution. Liberia to Gabon and Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: November. Fruit: September.

Specimens. Harris 1045, 1544.

Combretum mortehanii De Wild. & Exell

Ref. Jongkind, Fl. Gabon 35: 60. 1999.

Habit. Liana.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Cameroon to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Specimens. Harris 137.

Combretum mucronatum Thonn, ex Schumach.

Ref. Jongkind, Fl. Gabon 35: 62. 1999.

Habit. Liana.

Habitat. Seasonally flooded forest. *Distribution*. Gambia to Sudan and Gabon. *Local distribution*. Ndakan. *Phenology*. Flower: February, December. Fruit: February.

Specimens. *Harris* 262, 812, 1719, 1787; *Fangonda* 260, 280.

Combretum paniculatum Vent.

Ref. Jongkind, Fl. Gabon 35: 70. 1999.

Habit. Liana.

Habitat. Seasonally flooded forest. Distribution. Gambia to Ethiopia and South Africa. Local distribution. Ndakan. Phenology. Flower: February, August. Fruit: March.

Specimens. Harris 933, 1809, 1990; Fangonda 286A.

Combretum paradoxum Welw. ex M.A.Lawson

Ref. Jongkind, Fl. Gabon 35: 72. 1999.

Habit. Liana.

Habitat. Riparian forest. Distribution. Ghana to Congo (Kinshasa) toAngola. Local distribution. Ndakan. Phenology. Flower: March, June.Specimens. Harris 824, 2026.

Combretum platypterum (Welw.) Hutch. & Dalziel

Ref. Jongkind, Fl. Gabon 35: 75. 1999.

Habit. Liana.

Habitat. Secondary terra firma forest. Distribution. Guinea to Sudan, Congo (Kinshasa) and Angola. Local distribution. Ndakan. Phenology. Flower: August.

Specimens. Harris 1014.

Combretum racemosum P.Beauv.

Ref. Jongkind, Fl. Gabon 35: 80. 1999.

Habit. Liana.

Habitat. Riparian forest. Distribution. Gambia to Sudan, Uganda and Angola. Local distribution. Ndakan. Phenology. Flower February, December.

Specimens. Harris 1713, 1806.

Pteleopsis hylodendron Mildbr.

Ref. Jongkind, Fl. Gabon 35: 94. 1999.

Habit. Tree.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Gabon and Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: February.

Fruit: February.

Specimens. Harris 152, 191, 217, 249, 1782, 1862.

Terminalia superba Engl. & Diels

Ref. Jongkind, Fl. Gabon 35: 108. 1999.

Habit. Tree.

Habitat. Terra firma and seasonally flooded forest. Distribution. Guinea to Congo (Kinshasa) and Angola. Local distribution. Ndakan.

Specimens. Harris 205, 781; Fay 8564; Carroll 1070.

Compositae

Chromolaena odorata (L.) R.M.King & H.Rob.

Ref. King & Robinson, 1970: 204. Synonym. Eupatorium odoratum L.

Habit. Herb 2 m high.

Habitat. Cleared land. *Distribution*. Native to Asia. Now a widespread weed in tropical Africa. *Local distribution*. Ndakan. *Phenology*. Flower: January.

Specimens. Harris 189.

Eclipta prostrata (L.) L.

Ref. Adams, F.W.T.A. 2: 241. 1963.

Habit. Herb.

Habitat. Riparian forest. *Distribution*. Tropics. *Local distribution*. Ndakan. *Phenology*. Flower: April.

Specimens. Harris 518.

Ethulia conyzoides L.f.

Ref. Adams, F.W.T.A. 2: 284. 1963.

Habit. Herb.

Habitat. Riparian forest. Distribution. Tropical Africa. Local distribution. Ndakan. Phenology. Flower: May.

Specimens. Harris 739.

Mikania chenopodiifolia Willd.

Ref. Homes, 1982: 221.

Habit. Liana.

Habitat. Old fields. Distribution. Senegal to Ethiopia and Madagascar. Local distribution. Ndakan. Phenology. Flower: August.

Specimens. Harris 1017.

Mikania microptera DC.

Ref. Homes, 1982: 237.

Habit. Liana.

Habitat. Riparian forest. *Distribution*. Sierra Leone to western Tanzania and Angola. Also in South America. *Local distribution*. Ndakan.

Phenology. Flower: August.

Specimens. Harris 974.

Vernonia stellulifera (Benth.) C.Jeffrey

Ref. Kalanda & Lisowski, 1995: 641.

Habit. Herb.

Habitat. Seasonally flooded sedge meadow. *Distribution*. Guinea to Angola and Zambia. *Local distribution*. Ndakan. *Phenology*. Flower: April. Specimens. *Harris* 522.

Vernonia titanophylla Brenan

Ref. Moutsamboté, 1990: 275.

Habit. Tree.

Habitat. Light gaps in terra firma forest. Distribution. Guinea Bissau to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: January.

Specimens. Harris 1748.

Connaraceae

Agelaea paradoxa Gilg var. microcarpa Jongkind

Ref. Jongkind, 1989a: 142.

Habit. Shrub or liana 25 m high.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest. Distribution. Guinea to Congo (Kinshasa) and Gabon. Local

distribution. Dzanga, Bai Hoku, Kongana, Bayanga. *Phenology*. Flower: January, October. Fruit: January, February, March.

Note. Jongkind (1989a) separates two varieties of this species on fruit characters and states that there are "almost no intermediates"; in addition he mentions some small differences in the texture of the leaflets.

Specimens. Harris 77, 3555, 4113, 4359, 4494, 4532, 4548, 4566, 4722, 5512; Carroll 1520, 1557; Gentry 62687.

Agelaea pentagyna (Lam.) Baill.

Ref. Jongkind, 1989a: 144.

Habit. Liana 25 m high.

Habitat. Terra firma forest. Distribution. Senegal to Zimbabwe and Madagascar. Local distribution. Kongana, Salcapa, Ndakan. Phenology. Flower: March, May, August, November. Fruit: November.

Specimens. *Harris* 300, 894, 1547, 2008, 4823, 4898; *Fay* 8525; *Gentry* 62620, 62763.

Agelaea poggeana Gilg

Ref. Jongkind, 1989a: 156.

Habit. Liana 20 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa) and Angola. Local distribution. Kongana. Phenology. Flower: January. Note. Much rarer than the other species of Agelea in this area.

Specimens. Harris 4151, 4381.

Cnestis corniculata Lam.

Ref. Lemmens, 1989: 181.

Habit. Liana 8 m high.

Habitat. Secondary forest, old fields and seasonally flooded forest.

Distribution. Gambia to Sudan, Congo (Kinshasa) and Angola. *Local distribution*. Bayanga, Kongana, Ndakan. *Phenology*. Flower: February. Fruit: January, February, April.

Specimens. Harris 216, 1749, 1951, 4039, 4061, 4678; Gentry 62591.

Cnestis ferruginea Vahl ex DC.

Ref. Lemmens, 1989: 196.

Habit. Small tree to liana 8 m high.

Habitat. Secondary forest and old fields. Distribution. Senegal to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: February, June, December. Fruit: February, July, September.

Note. Several species from Hutchinson & Dalziel (F.W.T.A. 1. 1958.) are lumped into this species by Lemmens (1989a) who lists 37 synonyms. **Specimens.** *Harris* 26, 1064, 1863, 4409, 5116; *Fay* 8585.

Connarus griffonianus Baill.

Ref. Lemmens, 1989b: 252.

Habit. Liana 20 m high.

Habitat. Terra firma and riparian forest. Distribution. Nigeria to Congo (Kinshasa) and Angola. Local distribution. Kongana, Ndakan.

Phenology. Flower: January, February, May, October. Fruit: January, September, October.

Specimens. *Harris* 117, 1078, 1341, 1838, 4945.

Hemandradenia mannii Stapf

Ref. Eimunjeze, 1989: 279.

Habit. Tree 10 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Dzanga. Phenology. Flower: December.

Note. A widespread species from Côte d'Ivoire to Congo (Kinshasa) but apparently rare with no more than 50 herbarium specimens ever collected.

Specimens. Harris 3602, 3890.

Manotes griffoniana Baill.

Ref. Jongkind, 1989b: 302.

Habit. Liana 15 m high.

Habitat. Terra firma forest and riparian forest on the Sangha River.

Distribution. Nigeria to Congo (Kinshasa). *Local distribution*. Kongana, Lidjombo, Ndakan. *Phenology*. Flower: January, May, July. Fruit: September.

Specimens, Harris 1056, 3435, 4307, 4902, 4956; Fay 8720,

Rourea coccinea (Thonn. ex Schumach.) Benth. subsp. **coccinea** var. **viridis** (Gilg) Jongkind

Ref. Jongkind, 1989c: 328.

Habit. Liana 20 m or shrub.

Habitat. Terra firma forest and seasonally flooded sedge meadow. Distribution. Nigeria to Congo (Kinshasa) and Angola. Local distribution. Njeke, Salcapa, Kongana. Phenology. Flower: January, February, May. Fruit: February, March, May, June, September.

Note. After a superficial examination of the specimens at Kew and the illustrations in Jongkind (1989) I would have treated the two varieties of this subspecies as distinct species. Jongkind (1989), however, clearly stated that "the number of intermediates is far too large to justify maintenance of the taxa involved [referring to the two subspecies and two varieties] on species level". I therefore follow his treatment.

Specimens. *Harris* 116, 610, 1079, 1798, 1799, 3374, 4816.

Rourea minor (Gaertn.) Alston

Ref. Jongkind, 1989c: 347.

Habit. Liana or shrub.

Habitat. Riparian forest on the Sangha River. Distribution. Senegal to Sudan, Mozambique and Madgagascar. Local distribution. Ndakan, Bayanga. Phenology. Fruit: January(immature), September.

Specimens. Harris 1071, 4291.

Rourea myriantha Baill.

Ref. Jongkind, 1989c: 342.

Habit. Liana 25 m high.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest. Distribution. Nigeria to Congo (Kinshasa) and Angola (Cabinda). Local distribution. Kongana.

Specimens. Harris 4509, 4638.

Rourea obliquifoliolata Gilg

Ref. Jongkind, 1989c: 345.

Habit. Liana to 20 m, often lower.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest, and old fields. Distribution. Nigeria to eastern Congo (Kinshasa) and Angola. Local distribution. Dzanga, Bayanga, Bai Hoku, Kongana, Ndakan. Phenology. Flower: January, February, May, November, December. Fruit: January, February, November, December.

Specimens. Harris 1554, 1764, 1903, 3884, 4033, 4242, 4396, 4622, 4632, 4955, 5349; Carroll 1577.

Rourea solanderi Baker

Ref. Jongkind, 1989c: 355.

Habit. Liana.

Habitat. Riparian forest on the Sangha River. Distribution. Sierra Leone to Angola (Cabinda). Local distribution. Ndakan. Phenology. Flower: September.

Specimens. Harris 1100.

Rourea thomsonii (Baker) Jongkind

Ref. Jongkind, 1989c: 359.

Habit. Liana.

Habitat. Terra firma and riparian forest. Distribution. Senegal to Sudan, Zambia and Tanzania. Local distribution. Ndakan, Kongana. Phenology. Flower: August, November. Fruit: June.

Note. Jongkind (1989c) lists 37 synonyms for this very variable species. Two different leaflet shapes are present in this area. Plants with leaflet

"shape C" of Jongkind (1989c) occur in riparian forest and those with leaflet "shape B" occur in *terra firma* forest.

Specimens. *Harris* 896, 1568, 5097.

Convolvulaceae

Aniseia martinicensis (Jacq.) Choisy

Ref. Heine, F.W.T.A. 2: 343. 1963.

Habit. Herbaceous vine.

Habitat. Marshy clearing in forest. Distribution. Pantropical. Local distribution. Ndakan. Phenology. Flower: September. Fruit: September. Specimens. Harris 1164.

Calycobolus sp. A.

Habit. Liana.

Habitat. Riparian forest. *Local distribution*. Ndakan. *Phenology*. Flower: February. Fruit: September.

Specimens. Harris 1055, 1837.

Dipteropeltis sp. A.

Habit. Liana.

Habitat. Terra firma forest. Local distribution. Kongana. Phenology.

Flower: May. **Specimens.** *Harris* 4954.

Ipomoea alba L.

Ref. Heine, F.W.T.A. 2: 346. 1963.

Habit. Vine.

Habitat. Riparian forest. Distribution. Pantropical (originally from tropical America). Local distribution. Ndakan. Phenology. Flower: November (bud).

Specimens. Harris 1531.

Ipomoea involucrata P.Beauv.

Ref. Heine, F.W.T.A. 2: 347. 1963.

Habit. Herbaceous vine.

Habitat. Riparian forest, roadsides and cleared ground. Distribution.

Senegal to Angola. Local distribution. Kongana, Ndakan. Phenology.

Flower: February, September, November.

Specimens. *Harris* 1081, 4560, 5334.

Ipomoea mauritiana Jacq. vel sp. aff.

Ref. Heine, F.W.T.A. 2: 351. 1963.

Habit. Vine.

Habitat. Riparian forest. Distribution. Pantropical. Local distribution.

Ndakan. Phenology. Flower: November.

Specimens. Harris 1543.

Cucurbitaceae

Coccinia barteri (Hook.f.) Keay

Ref. Keraudren, Fl. Cam. 6: 128. 1967.

Habit. Vine 2 m high.

Habitat. Seasonally flooded sedge meadow. Distribution. Senegal to Tanzania and Zambia. Local distribution. Ndakan. Phenology. Flower: September.

Specimens. Harris 1192.

Momordica cabraei (Cogn.) C.Jeffrey

Ref. Keraudren, Fl. Cam. 6: 160. 1967. Synonym. Dimorphochlamys mannii Hook.f.

Habit. Vine.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Fruit: February. Specimens. Harris 241.

Momordica cissoides Planch. ex Benth.

Ref. Keraudren, Fl. Cam. 6: 160. 1967.

Habit. Vine 2 m high.

Habitat. Light gaps in terra firma forest and roadsides. Distribution.

Tropical Africa. Local distribution. Lidjombo, Ndakan. Phenology.

Flower: February. Fruit: January, February.

Specimens. *Harris* 242, 984, 4259.

Momordica foetida Schumach. & Thonn.

Ref. Keraudren, Fl. Cam. 6: 180. 1967.

Habit. Vine.

Habitat. Seasonally flooded clearing in forest. Distribution. Tropical Africa. Local distribution. Mambele bai. Phenology. Flower: October. Fruit October.

Specimens. Harris 1443.

Raphidiocystis jeffreyana R.Fernández & A.Fernández vel sp. aff. Ref. Keraudren, Fl. Cam. 6: 105. 1967.

Habit. Vine.

Habitat. Terra firma forest. Local distribution. Ndakan. Phenology.

Flower: November. Fruit: November.

Specimens. Fay 8700.

Telfairia batesii Keraudren

Ref. Keraudren, Fl. Cam. 6: 32. 1967.

Habit. Vine.

Habitat. Terra firma forest. Local distribution. Ndakan.

Specimens. Harris 608; Fay 8537.

Zehneria capillacea (Schumach. & Thonn.) C.Jeffrey

Ref. Keraudren, Fl. Cam. 6: 140. 1967. Synonym. Melothria capillacea (Schumach. & Thonn.) C.Jeffrey

Habit. Vine.

Habitat. Riparian forest on the Sangha River. Distribution. Sierra Leone to Uganda. Local distribution. Ndakan. Phenology. Flower: February,

April. Fruit: February, April.

Specimens. Harris 519, 1810.

Dichapetalaceae

Note. The key to the African species of Dichapetalum is by Breteler (1986).

Dichapetalum glomeratum Engl.

Ref. Breteler, Fl. Gabon 32: 98. 1991.

Habit. Liana 4 m high.

Habitat. Roadside vegetation. Distribution. Cameroon, Gabon and Congo (Kinshasa). Local distribution. Salcapa. Phenology. Flower (buds): March.

Specimens. Harris 5466.

Dichapetalum heudelotii (Planch. ex Oliv.) Baill. var. heudelotii

Ref. Breteler, Fl. Gabon, 32: 101. 1991.

Habit. Shrub.

Habitat. Old fields and riparian forest.

Distribution. Guinea-Bissau to Sudan, Zambia, Angola. Local distribution. Bayanga, Ndakan. Phenology. Flower: March, December. Fruit: December.

Note. Described as a liana elsewhere by Breteler (1979).

Specimens. Harris 2020, 3926.

Dichapetalum madagascariense Poir.

Ref. Breteler, Fl. Gabon, 32: 122. 1991.

Habit. Shrub.

Habitat. Terra firma forest. Distribution. Guinea Bissau to Sudan,

Mozambique, Angola and Madagascar. Local distribution. Kongana.

Phenology. Flower: January, February, May. Fruit: January, July.

Note. Described as a liana elsewhere by Breteler (1981).

Specimens. Harris 3380, 4304, 4382, 4519, 4936.

Dichapetalum mombuttense Engl.

Ref. Breteler, Fl. Gabon, 32: 130. 1991.

Habit. Shrub.

Habitat. Old fields. *Distribution*. Cameroon, Gabon. *Local distribution*. Bayanga. *Phenology*. Fruit: June.

Note. Described as a liana elsewhere, Breteler (1981).

Specimens. Harris 3312.

Dilleniaceae

Tetracera alnifolia Willd.

Ref. Kubitzki, 1970: 56.

Habit, Liana.

Habitat. Riparian forest on the Sangha River. Distribution. Senegal to Zambia and Angola. Local distribution. Ndakan. Phenology. Flower: March. Fruit: September. August.

Specimens. Harris 275, 566, 897, 1095.

Tetracera rosiflora Gilg

Ref. Kubitzki, 1970: 87.

Habit. Liana.

Habitat. Terra firma and riparian forest. Distribution. Cameroon to Congo (Kinshasa) and Angola. Local distribution. Kongana, Ndakan.

Phenology. Flower: June.

Specimens. Harris 627, 4142, 4237, 5060; Gentry 62725, 62758.

Tetracera stuhlmanniana Gilg

Ref. Kubitzki, 1970: 83.

Habit. Liana.

Habitat. Riparian forest on the Sangha River. Distribution. Côte d'Ivoire to Uganda and Tanzania. Local distribution. Ndakan. Phenology. Flower: September.

Note. According to Kubitzki (1970) specimens of this species are included under *T. potatoria* by Hutchinson & Dalziel (F.W.T.A. 1, 1954). Specimens. *Harris* 1048.

Ebenaceae

Diospyros bipindensis Gürke

Ref. Letouzey & White, Fl. Cam. 11: 30. 1970.

Habit. Tree 10 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Uganda and Angola.Local distribution. Kongana, Lidjombo, Ndakan. Phenology. Flower:May.

Specimens. Harris 1222, 1260, 1670, 4887; Fay 8739; Gentry 62694, 62705, 62752.

Diospyros canaliculata De Wild.

Ref. Letouzey & White, Fl. Cam. 11: 43. 1970.

Habit. Tree 10 m high.

Habitat. Terra firma forest, often in light gaps. Distribution. Liberia to Angola and Congo (Kinshasa). Local distribution. Ndakan, Bai Hoku, Kongana. Phenology. Flower: September. Fruit: January, February, March, June.

Specimens. *Harris* 147, 326, 362, 717, 1135, 1183, 1681, 4617; *Fay* 8477, 8553; *Carroll* 1013, 1030.

Diospyros crassiflora Hiern

Ref. Letouzey & White, Fl. Cam. 11: 57. 1970.

Habit. Tree 20 m high.

Habitat. Terra firma forest.

Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: March, April.

Specimens. *Harris* 539; *Fay* 8473, 8734B; *Carroll* 1090, 1096; *Goldsmith* 212.

Diospyros dendo Welw. ex Hiern

Ref. Letouzey & White, Fl. Cam. 11: 63. 1970.

Habit. Tree 10 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Angola and Congo (Kinshasa). Local distribution. Ndakan. Phenology. Fruit: May, November.

Specimens. Harris 705, 1221, 1231, 1594; Gentry 62577, 62636, 62762; Thomas 7201.

Diospyros ferrea (Willd.) Bakh.

Ref. Letouzey & White, Fl. Cam. 11: 69. 1970.

Habit. Tree 5 m high.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Africa to Asia and Australia. Local distribution. Salcapa, Ndakan. Phenology. Flower: February, March.

Note. This species is so variable that it was used as an example of an "ochlospecies" when the term was first used by White (1962). More recent discussion on the variation of this species is presented by White (1978) who describes it as an "ecological and chorological transgressor". In this area it is strictly restricted to *Gilbertiodendron dewevrei* forest.

Specimens. Harris 1091, 1823, 1876, 1918, 2032, 4854.

Diospyros gilletii De Wild.

Ref. Letouzey & White, Fl. Cam. 11: 82. 1970.

Habit. Tree 20 m high.

Habitat. Riparian forest. Distribution. Cameroon to Congo (Kinshasa) and Gabon. Local distribution. Dzanga, Ndakan. Phenology. Flower: January, February(bud), March. Fruit: January, February, April (immature), August, September, October.

Specimens. Harris 66, 119, 567, 884, 1082, 1770, 1959, 2023, 3516.

Diospyros iturensis (Gürke) Letouzey & F.White

Ref. Letouzey & White, Fl. Cam. 11: 93. 1970.

Habit. Tree 15 m high.

Habitat. Terra firma and seasonally flooded forest. Distribution. Nigeria to Congo (Kinshasa) and Angola. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: February, April, May. Fruit: July, September, October, November.

Specimens. Harris 546, 561, 735, 798, 977, 1089, 1101, 1155, 1298, 1513, 1635, 3920, 4141, Fay 8593; Carroll 1069, 1536; Gentry 62563, 62704, 62746, 62782.

Diospyros mannii Hiern

Ref. Letouzey & White, Fl. Cam. 11: 104. 1970.

Habit. Tree to 20 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa) and Gabon. Local distribution. Bai Hoku, Dzanga, Bayanga, Ndakan. Specimens. Harris 3579, 4099, 4249, 4456, 4856, 5557; Gentry 62785; Goldsmith 206.

Diospyros pseudomespilus Mildbr.

Ref. Letouzey & White, Fl. Cam. 11: 140. 1970.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa), Angola and Zambia. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Fruit: January, February.

Specimens. Harris 162, 1218, 1285, 4440; Carroll 1061.

Euphorbiaceae

Acalypha neptunica Müll.Arg.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 410. 1958.

Habit. Shrub 1 m high.

Habitat. Roadsides and old fields. Distribution. Ghana to Tanzania. Local distribution. Salcapa, Ndakan. Phenology. Flower: March, May.Specimens. Harris 710, 1983, 4840, 5469.

Alchornea cordifolia (Schumach. & Thonn.) Müll.Arg.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 403. 1958.

Habit. Shrub 4 m high.

Habitat. Riparian forest on the Sangha River, roadsides and light gaps in terra firma forest. Distribution. Tropical Africa. Local distribution.Lidjombo, Ndakan. Phenology. Flower: April. Fruit: July.

Specimens. Harris 471; Fay 8575.

Alchornea floribunda Müll.Arg.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 403. 1958.

Habit. Shrub 2 m high.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest. Distribution. Liberia to Sudan, Gabon and Uganda. Local distribution.

Dzanga, Kongana, Bayanga, Lidjombo, Ndakan. *Phenology*. Flower:

February, March, June, October.

Specimens. Harris 1024, 1943, 2551, 3616, 5049, 5509, 5525.

Antidesma laciniatum Müll.Arg.

Ref. Léonard, Fl. Afr. Cent. (Euphorbiaceae, 2): 22. 1995.

Habit. Tree to 15 m.

Habitat. Terra firma forest. Distribution. Guinea to Uganda. Local distribution. Bai Hoku, Kongana, Salcapa, Ndakan. Phenology. Flower: March, May. Fruit: March.

Specimens. *Harris* 1228, 1242, 4009, 4806, 4912, 5476, 5543.

Antidesma rufescens Tul.

Ref. Léonard, Fl. Afr. Cent. (Euphorbiaceae, 2): 78. 1995.

Habit. Tree 5 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Gambia to Tanzania and Namibia. Local distribution. Ndakan. Phenology. Fruit: May.

Specimens. Harris 811.

Antidesma vogelianum Müll.Arg.

Ref. Léonard, Fl. Afr. Cent. (Euphorbiaceae, 2): 26. 1995.

Habit. Tree 5 m high.

Habitat. Seasonally flooded and riparian forest, occasionally in terra firma forest. Distribution. Nigeria to Sudan, Gabon, Congo (Kinshasa) and Angola. Local distribution. Kongana, Ndakan. Phenology. Flower: January, February, May. Fruit: January, May, December.

Specimens. Harris 122, 630, 665, 1794, 1961, 4044, 5409; Gentry 62615.

Bridelia atroviridis Müll.Arg.

Ref. Léonard, F.C.R.B. 8,1: 35. 1962.

Habit. Tree 10 m high.

Habitat. Light gaps, old fields and roadsides. Distribution. Sierra Leone to Sudan, Tanzania and Angola. Local distribution. Bayanga, Kongana, Lidjombo, Ndakan. Phenology. Flower: May, June. Fruit: September, August, November, December.

Specimens. Harris 937, 1107, 1334, 3315, 4090, 4468, 4961, 5342, 5539; Fay 8563.

Bridelia ferruginea Benth.

Ref. Léonard, F.C.R.B. 8,1: 38. 1962.

Habit. Tree 5 m high.

Habitat. Savanna. Distribution. Guinea to Zimbabwe and Angola. Local distribution. Yobe. Phenology. Fruit: June.

Specimens. Harris 3337.

Bridelia ripicola J.Léonard

Ref. Léonard, F.C.R.B. 8,1: 45. 1962.

Habit. Tree 5 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: April, May. Fruit: June.

Specimens. Harris 464, 737, 851.

Cleistanthus mildbraedii Jabl.

Ref. Léonard, 1960: 425.

Habit. Tree 15 m high.

Habitat. Seasonally flooded and *terra firma* forest. *Distribution*. Cameroon to Congo (Kinshasa). *Local distribution*. Bai Hoku, Ndakan. *Phenology*. Flower: February, March.

Note. Often associated with *Lophira alata* at the edge of seasonally flooded forest.

Specimens. Harris 1220, 1360, 1899, 1915, 1962, 2016; Fay 8744; Carroll 111, 1003, 1131.

Cleistanthus ripicola J.Léonard

Ref. Léonard, 1960: 438.

Habit. Shrub.

Habitat. Riparian forest. *Distribution*. Côte d'Ivoire to Congo (Kinshasa). *Local distribution*. Bayanga, Ndakan. *Phenology*. Flower: April, June. Fruit: June (immature), July, October (immature).

Note. Keay (1989) does not accept all the species of *Cleistanthus* as delimited by Léonard (1960) and treats *Cleistanthus ripicola* as a synonym of *Cleistanthus polystachyus*.

Specimens. *Harris* 523, 825, 852, 1430, 3314.

Croton haumanianus J.Léonard

Ref. Leonard, F.C.R.B. 8,1: 60. 1962.

Habit. Tree 15 m high.

Habitat. Seasonally flooded clearing in forest. Distribution. Central African Republic to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: June, October. Fruit: June.

Note. This record extends the range of this species which was previously known only from Congo (Kinshasa).

Specimens. Harris 837, 1442.

Croton mayumbensis J.Léonard vel sp. aff.

Ref. Léonard, 1956: 390.

Habit. Tree to 20 m high.

Habitat. Terra firma forest, especially on abandoned roads and old fields.Distribution. Gabon, Cameroon. Local distribution. Bai Hoku,Kongana. Phenology. Flower: January, February.

Note. If this species is confirmed as *Croton mayumbensis* it will represent a considerable range extension from the distribution given by Léonard (1956). I have examined the Kew isotype of the closely related *Croton oligandrus* (*Klaine* 556) which occurs in Gabon, Cameroon and Equatorial Guinea according to Léonard (1956, 1963). I cannot yet, however, tell the two species apart sterile and I am not completely certain of my determination. Fruit and flowers are required.

Specimens. Harris 3485, 4349, 4390; Carroll 1007, 1141.

Croton sylvaticus Hochst. ex Krauss

Ref. Léonard, F.C.R.B. 8,1: 72. 1962.

Habit. Tree 15 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Guinea to Sudan and South Africa. Local distribution. Ndakan. Phenology. Flower: April.

Specimens. Harris 553.

Crotonogyne poggei Pax

Ref. Léonard, F.C.R.B. 8,1: 178. 1962.

Habit. Shrub.

Habitat. Gilbertiodendron dewevrei forest and riparian forest. Distribution.

Congo (Kinshasa). Local distribution. Dzanga, Kongana. Phenology.

Flower: February, May, July, October.

Note. This appears to be the westernmost record of this species.

Specimens. *Harris* 3438, 3564, 3618, 3881, 4455, 4527, 4633, 4660, 4930, 5510.

Dalechampia ipomoeifolia Benth.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 412. 1958.

Habit. Low climber.

Habitat. Seasonally flooded forest, permanent swamp, old fields and roadsides. *Distribution*. Sierra Leone to Tanzania and Gabon. *Local distribution*. Kongana, Ndakan. *Phenology*. Flower: May. Fruit: January, May (immature).

Specimens. Harris 670, 2337, 4357.

Dichostemma glaucescens Pierre

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 416. 1958.

Habit. Tree 15 m high.

Habitat. Light gaps in terra firma forest, riparian forest and permanent swamps. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Flower: March.

Note. The suggestion by Hutchinson & Dalziel (F.W.T.A. 1, 1958) that this species can be a climber does not apply in this area and may be a mistake. **Specimens**. *Harris* 1315, 2022; *Fay* 8514; *Gentry* 62737.

Discoglypremna caloneura (Pax) Prain

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 403. 1958.

Habit. Tree 20 m high.

Habitat. Light gaps and roadside. Distribution. Guinea to Congo(Kinshasa) and Uganda. Local distribution. Kongana, Lidjombo,Ndakan. Phenology. Flower: June.

Specimens. Harris 1234, 1356, 1358, 1469, 4370; Fay 8445, 8820, 8878.

Drypetes angustifolia Pax & K.Hoffm. vel sp. aff.

Ref. Pax & Hoffmann, 1922: 261.

Habit. Tree 8 m high.

Habitat. Terra firma and seasonally flooded forest. *Local distribution*. Kongana, Ndakan. *Phenology*. Fruit: July (immature), November.

Specimens. *Harris* 1509, 3428, 3452, 3949, 3953, 3974, 3975, 3993, 3996, 4101, 4116, 4137, 4138; *Thomas* 7214.

Drypetes capillipes (Pax) Pax & K.Hoffm.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 382. 1958.

Habit. Tree 3 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa).

Local distribution. Kongana. Phenology. Flower: April, May. Fruit: December.

Specimens. Harris 3995, 4013, 4048, 4124, 4136, 4148, 4150, 4884, 4953.

Drypetes cinnabarina Pax & K.Hoffm.

Ref. Pax & Hoffmann, 1922: 263.

Habit. Tree 5 m high.

Habitat. Gilbertiodendron dewevrei and mixed species terra firma forest.

Distribution. Cameroon to Congo (Kinshasa). Local distribution.

Dzanga, Bai Hoku, Kongana, Ndakan. *Phenology*. Flower: May. Fruit: July (immature), October, November.

Specimens. Harris 1351, 1937, 2239, 2366, 2408, 3399, 3539, 4115, 4120, 4123, 4184, 4344, 4506, 4982; Gentry 62740A.

Drypetes diopa (Hiern) Brenan

Ref. Brenan, 1953: 92.

Habit. Tree 4 m high.

Habitat. Terra firma forest. Distribution. Cameroon and Gabon to Angola (Cabinda). Local distribution. Bai Hoku, Kongana. Phenology. Fruit: January, July, September. Flower: February(bud), April.

Specimens. *Harris* 3482, 4303, 4517; *Remis* 91-002.

Drypetes fallax Pax & K.Hoffm.

Ref. Pax & Hoffmann, 1922: 242.

Habit. Tree 4 m high.

Habitat. Terra firma forest. Distribution. Cameroon. Local distribution.

Kongana. Phenology. May: flower.

Specimens. Harris 4892, 4941.

Drypetes gossweileri S.Moore

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 382. 1958.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa).

Local distribution. Bai Hoku, Ndakan. Phenology. Flower: January, April. Fruit: May.

Specimens. *Harris* 39, 160, 537, 788; *Fay* 8202; *Carroll* 1015.

Drypetes ituriensis Pax & K.Hoffm. vel sp. aff.

Ref. Pax & Hoffmann, 1922: 277.

Habit. Tree 15 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Bai Hoku, Kongana, Bayanga, Ndakan. Phenology. Flower: February, April.

Specimens. Harris 1226, 1955, 3959, 4095, 4321, 4582, 5560; Carroll 1531; Gentry 62683, 62743, 62747, 62765.

Drypetes laciniata (Pax) Hutch.

Ref. Pax & Hoffmann, 1922: 256.

Habit. Tree 10 m high.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Cameroon to Gabon. Local distribution. Kongana, Lidjombo, Ndakan.

Note. This is the easternmost record of this species.

Specimens. Harris 1276, 3461, 4079, 4094, 4195, 4541; Fay 8849; Gentry 62740.

Drypetes occidentalis (Müll.Arg.) Hutch.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 382. 1958.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Bioko, Congo (Kinshasa) and Rwanda. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: May. Fruit: April, July.

Specimens. *Harris* 2321, 4091, 4118, 4727, 5345, 5547; *Goldsmith* 211.

Drypetes paxii Hutch.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 381. 1958.

Habit. Tree 18 m high.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Kongana.

Specimens. Harris 3493; Gentry 62609.

Drypetes polyantha Pax & K.Hoffm.

Ref. Pax & Hoffmann, 1922: 259.

Habit. Tree 8 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Kongana, Lidjombo, Ndakan. Phenology. Flower: March, April, May. Fruit: May (immature), June.

Note. I have not seen any of the original material, but the description (Pax & Hoffmann 1922) fits this material well.

Specimens. *Harris* 415, 677, 828, 1214, 1254, 1273, 1284, 1362, 1973, 2030, 2310, 4057, 4093, 4725, 4844, 4853, 5038; *Fay* 8839, 8846; *Gentry* 62639.

Drypetes principum (Müll.Arg.) Hutch. vel sp. aff.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 381. 1958.

Habit. Tree 5 m high.

Habitat. Terra firma and riparian forest. Distribution. Guinea to Cameroon. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: February, March.

Specimens. Harris 1872, 4143, 5011; Carroll 1106.

Drypetes urophylla Pax & K.Hoffm. vel sp. aff.

Ref. Pax & Hoffmann, 1922: 254.

Habit. Tree 15 m high.

Habitat. Terra firma forest. Distribution. Cameroon. Local distribution. Kongana.

Specimens. Harris 4096, 4180, 4434, 4580.

Drypetes sp. A.

Habit. Tree 4 m high.

Habitat. Terra firma forest. Local distribution. Bai Hoku, Bayanga, Kongana, Salcapa, Ndakan.

Specimens. Harris 4126, 4127, 4238, 5477, 5561; Gentry 62780; Remis 105-95.

Drypetes sp. B.

Habit. Tree 3 m high.

Habitat. Terra firma forest. *Local distribution*. Bai Hoku, Bayanga, Kongana. *Phenology*. Flower: March. Fruit: May, June.

Specimens. Harris 2369, 3427, 3994, 4105, 4109, 4145, 4147, 4585, 4603, 5107, 5559; Carroll 1125, 1130.

Drypetes sp. C.

Habit. Tree 10 m high.

Habitat. Terra firma forest. Local distribution. Kongana.

Specimens. Harris 4179, 4719.

Elaeophorbia grandifolia (Haw.) Croizat

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 423.

Habit. Tree 12 m high.

Habitat. Edge of seasonally flooded clearing. Distribution. Guinea to Central African Republic. Local distribution. Mambele.

Specimens, Harris 839.

Erythrococca atrovirens (Pax) Prain

Ref. Radcliffe-Smith, F.T.E.A. (Euphorbiaceae): 277. 1987.

Habit. Spindly shrub 2 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Sudan and Zambia, Kenya and Tanzania. Local distribution. Kongana, Ndakan. Phenology. Flower: December. Fruit: March.

Specimens. Harris 285, 4155.

Erythrococca sp. A.

Habit. Scandent shrub.

Habitat. Riparian forest on the Sangha River. *Local distribution*. Ndakan. *Phenology*. Flower: December.

Specimens. Harris 1656.

Grossera macrantha Pax

Ref. Léonard, 1955: 319.

Habit. Tree 15 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa).

Local distribution. Dzanga, Bai Hoku, Kongana, Lidjombo, Ndakan.

Phenology. Flower: April, May, June. Fruit: October, November.

Specimens. Harris 554, 575, 1514, 1675, 3331, 3625, 3935, 4149, 4418, 4540, 4970, 3624A; Fay 8588; Fangonda 531; Carroll 1538; Gentry 62561.

Hura crepitans L.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 368. 1958.

Habit. Tree 5 m high.

Habitat. Old village site. Distribution. Tropical America. Local distribution. Bolongodi.

Note. Introduced from South America.

Specimens. Harris 1649.

Keayodendron bridelioides Leandri

Ref. Breteler, 1993: 188.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Cameroon and Gabon. Local distribution. Ndakan. Phenology. Flower: January, June. Fruit: May, June (immature), October.

Note. This is the easternmost record of this species. The author of this name, correctly given by Breteler (1993), is Léandri.

Specimens. *Harris* 84, 161, 572, 1456; *Fay* 8416, 8460.

Macaranga angolensis (Müll.Arg.) Müll.Arg.

Ref. Radcliffe-Smith, F.T.E.A. (Euphorbiaceae): 242. 1987.

Habit. Liana 6 m high.

Habitat. Light gaps and roadsides. *Distribution*. Cameroon to Uganda and Angola. *Local distribution*. Kongana, Ndakan. *Phenology*. Flower: January, February, June. Fruit: August.

Specimens. Harris 914, 941, 1856, 2430, 4692, 5406; Fay 8461.

Macaranga barteri Müll.Arg.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 407. 1958.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa). Local distribution. Bai Hoku, Kongana. Phenology. Flower: May, June.

Specimens. Harris 3479, 4037, 4376, 4431, 4465, 4469, 4679, 4687, 4689, 4710, 4711, 5125, 5542; Carroll 1035.

Macaranga monandra Müll.Arg.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 407. 1958.

Habit. Tree 20 m high.

Habitat. Old fields, roadsides and seasonally flooded forest. Distribution.
 Nigeria to Uganda, Tanzania and Angola. Local distribution. Kongana,
 Lidjombo, Ndakan. Phenology. Fruit: January, August, September.
 Specimens. Harris 832, 1109, 2445, 3934, 4365; Fay 8853; Fangonda 279.

Macaranga saccifera Pax

Ref. Prain, F.T.A. 6,1: 934. 1912.

Habit. Liana, 4 m high.

Habitat. Permanently flooded forest and streams. Distribution. Gabon,

Cameroon to Congo (Kinshasa). Local distribution. Ndakan. Phenology.

Flower: March. Specimens. *Harris* 1940, 2017.

Macaranga spinosa Müll.Arg.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 408. 1958.

Habit. Tree 15 m high.

Habitat. Old fields and roadsides. Distribution. Liberia to Uganda,

Tanzania and Angola. *Local distribution*. Kongana, Ndakan. *Phenology*. Flower: May, June, August. Fruit: July, August.

Specimens. Harris 865, 2449, 3373, 3494, 4363, 4364, 4377, 4424, 4467, 4656, 4691, 4693, 4715, 5538.

Maesobotrya longipes Hutch.

Ref. Léonard, 1994: 26.

Habit. Tree 5 m high.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: April, May. Fruit: April, August.

Specimens. *Harris* 771, 1006, 1257.

Mallotus oppositifolius (Geiseler) Müll.Arg.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 402, 1958.

Habit. Shrub.

Habitat. Terra firma forest in light gaps. Distribution. Tropical Africa and Madagascar. Local distribution. Salcapa, Ndakan. Phenology. Flower: February, March. Fruit: March, May.

Specimens. *Harris* 243, 4810, 5468; *Thomas* 8194.

Mallotus subulatus Müll.Arg.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 402. 1958.

Habit. Shrub 3 m high.

Habitat. Riparian forest on the Sangha River. *Distribution*. Sierra Leone to Congo (Kinshasa). *Local distribution*. Ndakan. *Phenology*. Flower: February, September.

Specimens. Harris 1123, 1888.

Manniophyton fulvum Müll.Arg.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 400. 1958.

Habit. Liana.

Habitat. Terra firma forest, light gaps, roadsides, riparian forest.

Distribution. Sierra Leone to Congo (Kinshasa), Sudan and Angola.

Local distribution. Lidjombo, Ndakan. Phenology. Flower: January, August. Fruit: September.

Specimens. *Harris* 13, 53, 947, 1054; *Fay* 8562.

Maprounea membranacea Pax & K.Hoffm.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 416. 1958.

Habit. Tree 15 m high.

Habitat. Seasonally flooded sedge meadow. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Njeke at Ndakan. Phenology. Flower: April, May. Fruit: April, May.

Specimens. Harris 425, 426, 684.

Mareya brevipes Pax

Ref. Léonard, Fl. Afr. Cent. (Euphorbiaceae, 3): 21. 1996.

Habit. Shrub 1.5 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Gabon and Uganda. Local distribution. Kongana. Phenology. Flower: May, June.

Specimens. Harris 4895, 5045.

Margaritaria discoidea (Baill.) Webster

Ref. Radcliffe-Smith, 1981: 219.

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Tropical Africa. Local distribution. Lidjombo, Ndakan.

Note. According to Radcliffe-Smith (1981) this species is "very plastic with several forms".

Specimens. Harris 1446, 1477; Fay 8560.

Martretia quadricornis Beille

Ref. Léonard, 1989: 326.

Habit. Tree.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Flower: December (bud).

Specimens. Harris 1696.

Necepsia afzelii Prain subsp. zenkeri Bouchat & J.Léonard

Ref. Bouchat & Léonard, 1986: 186.

Habit. Tree 3-4 m high.

Habitat. Terra firma forest. Distribution. Cameroon and Gabon. Local distribution. Ndakan.

Note. This is the easternmost record for this species.

Specimens. Harris 673, 1416.

Phyllanthus amarus Schumach. & Thonn.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 387. 1958.

Habit. Herb.

Habitat. Cleared ground near fields. Distribution. Tropics. Local distribution. Bayanga. Phenology. Fruit: March.

Specimens. Wraber LJU 49542.

Phyllanthus muellerianus (Kuntze) Exell

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 385. 1958.

Habit. Low liana.

Habitat. Light gaps and roadsides. Distribution. Tropical Africa. Local distribution. Kongana, Ndakan. Phenology. Flower: January, February, December. Fruit: January.

Specimens. Harris 132, 3944, 4026, 5396, 5449; Fangonda 273, 283.

Phyllanthus polyanthus Pax

Ref. Hutchinson F.T.A. 6, 1: 703. 1912.

Habit. Tree 35 m high.

Habitat. Seasonally flooded and *terra firma* forest. *Distribution*. Cameroon to Congo (Kinshasa). *Local distribution*. Dzanga, Kongana, Ndakan.

Phenology. Flower: February. Fruit: February.

Specimens. *Harris* 1473, 1783, 3626, 4677.

Phyllanthus reticulatus Poir.

Ref. Radcliffe-Smith, F.T.E.A. (Euphorbiaceae): 34. 1987.

Habit. Scandent shrub.

Habitat. Riparian forest on the Sangha River. Distribution. Tropical Africa and Asia. Local distribution. Ndakan. Phenology. Flower: July. Specimens. Harris 859.

Pycnocoma chevalieri Beille

Ref. Prain, F.T.A. 6,1: 960. 1912.

Habit. Shrub to 1 m high.

Habitat. Terra firma forest. Distribution. Gabon to Cameroon and Congo (Kinshasa). Local distribution. Bai Hoku, Ndakan. Phenology. Flower: March, September, August, December.

Specimens. *Harris* 6, 109, 958, 1201.

Ricinodendron heudelotii (Baill.) Pierre ex Heckel subsp. africanum

(Müll. Arg.) J.Léonard

Ref. Léonard, 1961: 398.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Guinea Bissau to Tanzania and Angola. Local distribution. Lidjombo, Salcapa, Ndakan. Phenology.

Flower: March. Fruit: November.

Specimens. Harris 317, 4797; Fay 8682, 8794.

Sapium ellipticum (Hochst.) Pax

Ref. Léonard, 1959: 141. Synonym. Shirakia elliptica (Hochst.) Kruijt

Habit. Tree 25 m high.

Habitat. Terra firma and seasonally flooded forest. Distribution. Guinea to South Africa. Local distribution. Lidjombo, Ndakan. Phenology. Flower: February. Fruit: May.

Note. All African members of the genus Sapium were transferred to other genera by Kruijt (1996). However the genus Shirakia, to which this species was moved, was only provisionally revised in that publication, so I prefer to keep the well-known name Sapium ellipticum until the relationships of these groups are more fully examined. Note also that in the protologue of the basionym (Krauss 1845) Hochstetter is clearly identified as the author of the name and as author of the Latin description. In the same article other authors have contributed names and descriptions and are similarly cited. Manuscript names which have been taken up in the article are clearly labelled as such and there is no indication that this was the case in the names provided by Hochstetter.

Specimens. *Harris* 1908; *Fay* 8703; *Gentry* 62645.

Sclerocroton cornutus (Pax) Kruijt & Roebers

Ref. Kruijt & Roebers, 1996: 20. Synonym. Sapium cornutum Pax

Habit. Tree 5 m high.

Habitat. Abandoned logging roads. *Distribution*. Côte d'Ivoire to Zimbabwe and Angola. *Local distribution*. Bai Hoku, Kongana.

Phenology. Fruit: February, October.

Specimens. *Harris* 4366, 4473, 4668, 4697; *Carroll* 1508.

Tetrorchidium didymostemon (Baill.) Pax & K.Hoffm.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 414. 1958.

Habit. Tree 8 m high.

Habitat. Light gaps and roadsides. Distribution. Guinea to Gabon and Uganda. Local distribution. Dzanga, Bai Hoku, Kongana, Lidjombo, Ndakan. Phenology. Flower: May, June, October. Fruit: May, June, July.

Specimens. Harris 174, 1247, 2296, 3378, 4315; Fay 8386, 8568; Carroll 1502, 1576.

Uapaca corbisieri De Wild.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 392. 1958.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa). Local distribution. Kongana, Lidjombo, Ndakan.

Note. I agree with the suggestion by Hutchinson & Dalziel (F.W.T.A. 1. 1958) that *Uapaca esculenta* should be treated as a synonym of this species.

Specimens. *Harris* 1483, 5358; *Fay* 8746.

Uapaca guineensis Müll.Arg.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 390. 1958.

Habit. Tree 25 m high.

Habitat. Seasonally flooded forest. Distribution. Sierra Leone to Gabon and Congo (Kinshasa), Malawi, Zimbabwe, Zambia and Tanzania. Local distribution. Lidjombo, Ndakan. Phenology. Flower: January, February, March.

Specimens. Harris 1728, 1817, 4745.

Uapaca heudelotii Baill.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 390. 1958.

Habit. Tree 20 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Senegal to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology.

Flower: February, August, September.

Specimens. Harris 550, 881, 1115, 1769, 1816, 1926, 1927, 1928, 1929, 1930.

Flacourtiaceae

Buchnerodendron speciosum Gürke

Ref. Sleumer 1974a: 291.

Habit. Tree 8 m high.

Habitat. Light gaps in terra firma forest. Distribution. Cameroon to Congo (Kinshasa) and Angola. Local distribution. Ndakan. Phenology. Flower: March, November. Fruit: May.

Specimens. Harris 270, 601, 1562, 1997.

Casearia barteri Mast.

Ref. Sleumer 1971: 406.

Habit. Tree 20 m high.

Habitat. Terra firma forest.

Habitat.Distribution. Sierra Leone to Congo (Kinshasa). Local distribution. Ndakan.

Specimens. Harris 1281, 1326.

Casearia congensis Gilg

Ref. Sleumer 1971: 402.

Habit. Tree 15 m high.

Habitat. Riparian and seasonally flooded forest. *Distribution.* Cameroon to Congo (Kinshasa). *Local distribution.* Ndakan. *Phenology.* Flower:

February, July. Fruit: August.

Specimens. Harris 850, 960, 1037, 1812; Thomas 7205.

Casearia stipitata Mast.

Ref. Sleumer 1971: 400.

Habit. Tree 8 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Fruit: August.

Specimens. Harris 945.

Dasylepis seretii De Wild.

Ref. Sleumer, 1972a: 558.

Habit. Tree 10 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Kongana, Lidjombo. Phenology. Flower: February, March. Fruit: June (immature), July (immature).

Specimens. Harris 3383, 3960, 4639, 5109, 5503; Fay 8602.

Dovyalis zenkeri Gilg

Ref. Sleumer, 1972b: 72.

Habit. Shrub 4 m high.

Habitat. Roadside and abandoned fields. *Distribution.* Guinea-Bissau to Uganda. *Local distribution.* Dzanga, Ndakan. *Phenology.* Flower: June.

Fruit: October.

Specimens. Harris 833, 1400, 3609.

Homalium abdessammadii Asch. & Schweinf.

Ref. Sleumer, Fl. Afr. Cent. (Flacourtiaceae, 2): 21. 1976.

Habit. Tree 3 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Cameroon to Sudan, Mozambique, Angola and Zimbabwe. Local distribution. Ndakan. Phenology. Flower: February, July.

Specimens. Harris 188; Thomas 7267.

Homalium africanum (Hook.f.) Benth.

Ref. Sleumer, Fl. Afr. Cent. (Flacourtiaceae, 2): 16. 1976.

Habit. Tree 10 m.

Habitat. Riparian forest especially in well lit situations. Distribution.
 Guinea to Mozambique and Angola. Local distribution. Dzanga, Bai
 Hoku, Kongana, Ndakan. Phenology. Flower: January, May, October,
 November. Fruit: October.

Specimens. *Harris* 1570, 3591, 4298, 4882; *Carroll* 1511.

Homalium letestui Pellegr.

Ref. Sleumer, Fl. Afr. Cent. (Flacourtiaceae, 2): 20. 1976.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Senegal to Congo (Kinshasa) and Angola. Local distribution. Ndakan. Phenology. Flower: February, March.

Specimens, Harris 1458, 1859, 1967, 4673.

Homalium longistylum Mast.

Ref. Sleumer 1973: 270.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Guinea to Gabon to Tanzania, Mozambique and Zambia Local distribution. Ndakan. Phenology. Flower: February.

Specimens. Harris 1909.

Homalium stipulaceum Welw. ex Mast.

Ref. Sleumer, Fl. Afr. Cent. (Flacourtiaceae, 2): 14. 1976.

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Liberia to Congo (Kinshasa) and Angola. Local distribution. Bai Hoku, Ndakan. Phenology. Flower: December.

Specimens. Harris 1704, 1705, 2004, 5578.

Oncoba crepiniana De Wild. & T.Durand

Ref. De Wildeman & Durand, 1899: 7. Synonym. Caloncoba crepiniana (De Wild. & T.Durand) Gilg

Habit. Tree 8 m high.

Habitat. Swampy clearings in forest and roadsides. Distribution. Central African Republic, Sudan and Congo (Kinshasa). Local distribution. Kongana, Lidjombo, Ndakan. Phenology. Flower: February, March. Fruit: April (immature).

Note. This appears to be the westernmost record of a wild specimen, although it is recorded (Sleumer 1974b) as being cultivated in eastern Cameroon where I suspect it occurs naturally.

Specimens. Harris 253, 528, 899, 1877, 3933, 4659, 5474; Fay 8684.

Oncoba dentata Oliv.

Ref. Hul, Fl. Gabon 34: 34. 1995. Synonym. Lindackeria dentata (Oliv.) Gilg Habit. Tree 4 m high.

Habitat. Light gaps. Distribution. Guinea to Congo (Kinshasa), Angola and Gabon. Local distribution. Dzanga, Kongana, Salcapa, Ndakan.Phenology. Flower: March (bud), April, May. Fruit: June, August, November.

Specimens. Harris 444, 864, 3329, 4805, 4904, 5040, 5475, 5508; Fay 8825.

Oncoba mannii Oliv.

Ref. Hul, Fl. Gabon 34: 56. 1995. Synonym. Camptostylus mannii (Oliv.) Gilg Habit. Tree 15 m high.

Habitat. Mixed species terra firma forest. Distribution. Nigeria (Calabar) to Gabon, Congo (Kinshasa) and Angola. Local distribution. Bai Hoku, Lidjombo, Ndakan. Phenology. Flower: January, February, April. Fruit: April.

Note. The species was revised (in the genus *Camptostylus*) by Sleumer (1974c).

Specimens. Harris 130, 419, 446, 791, 1682, 1773, 1910; Fay 8610; Carroll 1135, 1521, 1593.

Oncoba poggei Gürke

Ref. Gürke 1893: 163. *Synonym. Lindackeria poggei* (Gürke) Gilg *Habit.* Shrub 1.5 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Central African Republic, Congo (Brazzaville), Angola and Congo (Kinshasa). Local distribution. Salcapa, Ndakan. Phenology. Flower: March, May. Fruit: August.

Specimens. Harris 753, 1001, 4860.

Oncoba welwitschii Oliv.

Ref. Hul, Fl. Gabon 34: 46. 1995. *Synonym. Caloncoba welwitschii* (Oliv.) Gilg *Habit*. Tree 10 m high.

Habitat. Light gaps and abandoned logging roads. Distribution. Nigeria to Tanzania, Angola, Mozambique and Malawi. Local distribution. Bai Hoku, Ndakan. Phenology. Flower: February. Fruit: July.

Note. The species was revised in the genus *Caloncoba* by Sleumer (1974b). **Specimens.** *Harris* 218; *Fay* 8550; *Carroll* 1014.

Scottellia klaineana Pierre

Ref. Sleumer, 1972c: 279.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Gabon, Angola and Congo (Kinshasa). Local distribution. Kongana, Lidjombo, Ndakan. *Phenology*. Flower: June. Fruit: February.

Specimens. Harris 1303, 1323, 4006, 4076, 4564, 4578, 4594, 4790, 5103, 5356; Fay 8884; Carroll 1552.

Scottellia orientalis Gilg

Ref. Sleumer, 1972c: 277.

Habit. Tree 10 m high.

Habitat. Riparian forest and seasonally flooded sedge meadows.

Distribution. Nigeria to Congo (Kinshasa). Local distribution. Dzanga, Kongana, Ndakan. Phenology. Flower: April, October, December. Fruit: November.

Note. The specimens mistakenly cited by Hutchinson & Dalziel (F.W.T.A.

1. 1954) as *Scottellia mimfiensis* appear to belong to this species. This was pointed out by Sleumer (1972c) but apparently not noted by Keay (1989).

Specimens. Harris 1630, 3568, 4087; Fangonda 518.

Guttiferae

Allanblackia floribunda Oliv.

Ref. Bamps, F.C.R.B. (Guttiferae): 44. 1970. Habit. Tree 20 m high. Habitat. Terra firma forest. Distribution. Benin to Congo (Kinshasa) and Angola. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: February, March, October, December. Fruit: December.
 Specimens. Harris 11, 207, 3973; Carroll 1147, 1495.

Endodesmia calophylloides Benth.

Ref. Bamps, F.C.R.B. (Guttiferae): 40. 1970.

Habit. Tree small.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Kongana.

Specimens. Harris 5114.

Garcinia afzelii Engl. vel sp. aff.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 295. 1954.

Habit. Tree.

Habitat. Terra firma forest. Local distribution. Ndakan. Phenology. Fruit: May.

Specimens. Harris 682.

Garcinia chromocarpa Engl.

Ref. Bamps, F.C.B.R. (Guttiferae): 56. 1970.

Habit. Shrub.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa) and Gabon. Local distribution. Kongana. Phenology. Flower: February (immature buds).

Specimens. Harris 4112, 4667.

Garcinia kola Heckel

Ref. Bamps, F.C.R.B. (Guttiferae): 58. 1970.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa) and Angola. Local distribution. Bai Hoku, Lidjombo, Ndakan.

Phenology. Flower: January, December. Fruit: May.

Specimens. *Harris* 19, 793, 1750; *Fay* 8616; *Carroll* 1587.

Garcinia ovalifolia Oliv.

Ref. Bamps, F.C.R.B. (Guttiferae): 61. 1970.

Habit. Tree 10 m high.

Habitat. Seasonally flooded and riparian forest. *Distribution*. Guinea to Ethiopia, Uganda and Angola. *Local distribution*. Ndakan, Simasima. *Phenology*. Flower: January, February. Fruit: May.

Specimens. *Harris* 115, 688, 1793, 1841; *Fangonda* 284.

Garcinia punctata Oliv.

Ref. Bamps, F.C.R.B. (Guttiferae): 36. 1970.

Habit. Tree 8 m high.

Habitat. Terra firma forest. Distribution. Niger to Congo (Kinshasa), Angola and Zambia. Local distribution. Bai Hoku, Kongana, Lidjombo, Ndakan. Phenology. Flower: February, March.

Specimens. Harris 1307, 1629, 3965, 4181, 4640; Fay 8735A; Carroll 1089.

Garcinia smeathmannii (Planch. & Triana) Oliv.

Ref. Bamps, F.C.R.B. (Guttiferae): 60. 1970.

Habit. Tree 10 m high.

Habitat. Riparian and terra firma forest. Distribution. Guinea to Tanzania,
 Zambia and Angola. Local distribution. Bai Hoku, Bayanga, Kongana,
 Lidjombo, Ndakan. Phenology. Flower: January, February March.
 Specimens. Harris 1282, 3411, 3444, 3952, 4239, 4338, 4415, 4764; Fay 8770; Carroll 1109.

Harungana madagascariensis Lam. ex Poir.

Ref. Bamps, F.C.R.B. (Guttiferae): 14. 1970.

Habit. Tree 15 m high.

Habitat. Old fields and cleared land, abandoned logging roads.

Distribution. Tropical Africa to Madagascar. *Local distribution*. Lidjombo.

Specimens. Fay 8757.

Mammea africana Sabine

Ref. Bamps, F.C.R.B. (Guttiferae): 50. 1970.

Habit. Tree.

Habitat. Seasonally flooded and terra firma forest. Distribution. W. Africa to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Fruit: November.

Note. Although the fruit of this species are considered edible by some, they are not much eaten by people in this area. When eaten by humans they can cause vomiting (pers. observ.). It is possible that more than one taxa are included under this name.

Specimens. Harris 1642.

Psorospermum febrifugum Spach

Ref. Bamps, 1966: 447.

Habit. Shrub.

Habitat. Savanna. Distribution. Tropical Africa. Local distribution. Yobé. *Phenology*. Fruit: July.

Specimens. Harris 3341.

Hernandiaceae

Illigera pentaphylla Welw.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 59. 1954.

Habit. Liana 5 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Kenya and Angola. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: June.

Specimens. Harris 920, 5100; Carroll 1566.

Huaceae

Afrostyrax lepidophyllus Mildbr.

Ref. Hepper, F.W.T.A. 2: 34. 1963.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Ghana, Cameroon to Congo (Kinshasa). Local distribution. Bai Hoku, Lidjombo. Phenology.

Flower: February, March.

Specimens. Fay 8555; Carroll 110, 1019; Remis 8-92.

Icacinaceae

Alsodeiopsis poggei Engl. var. robynsii Boutique

Ref. Villiers, Fl. Cam. 15: 31. 1973.

Habit. Shrub 2 m high.

Habitat. Seasonally flooded forest. *Distribution*. Cameroon to Congo (Kinshasa). *Local distribution*. Ndakan. *Phenology*. Flower: July (bud). Specimens. *Gentry* 62595; *Thomas* 7213.

Alsodeiopsis sp. A.

Habit. Tree 12 m high.

Habitat. Gilbertiodendron dewevrei forest. *Local Distribution.* Kongana. Specimens. *Harris* 3416, 4345, 4583.

Chlamydocarya thomsoniana Baill.

Ref. Villiers, Fl. Cam. 15: 95. 1973.

Habit. Liana 5 m high.

Habitat. Seasonally flooded forest. *Distribution*. Sierra Leone to Gabon and Congo (Kinshasa). *Local distribution*. Ndakan. *Phenology*. Flower: February.

Specimens. Harris 1912.

Leptaulus zenkeri Engl.

Ref. Villiers, Fl. Cam. 15: 60. 1973.

Habit. Shrub 1 m high.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Nigeria to Zambia and Angola. Local distribution. Bai Hoku, Kongana, Lidjombo, Ndakan.

Phenology. Flower: February, March, April. Fruit: May.

Specimens. *Harris* 509, 1875, 4852, 5581; *Fangonda* 517.

Pyrenacantha acuminata Engl.

Ref. Villiers, Fl. Cam. 15: 78. 1973.

Habit. Liana 5 m high.

Habitat. Roadside vegetation. Distribution. Sierra Leone to Congo (Kinshasa). Local distribution. Salcapa, Ndakan. Phenology. Flower: March, May.

Specimens. Harris 640, 4837.

Pyrenacantha vogeliana Baill. vel sp. aff.

Ref. Villiers, Fl. Cam. 15: 76. 1973.

Habit. Liana 5 m high.

Habitat. Roadside vegetation. Local distribution. Salcapa. Phenology.

Flower: March (bud).

Specimens. Harris 4809.

Rhaphiostylis beninensis (Hook.f. ex Planch.) Planch. ex Benth.

Ref. Villiers, Fl. Cam. 15: 32. 1973.

Habit. Scandent shrub 2 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Senegal to Tanzania and Angola. Local distribution. Bayanga. Phenology. Flower: January.

Specimens. Harris 4285.

Irvingiaceae

Irvingia excelsa Mildbr.

Ref. Harris, 1996: 167.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa) and Gabon. Local distribution. Bayanga, Bai Hoku, Ndakan.

Note. This species has been widely referred to as *Irvingia gabonensis* in Congo (Kinshasa) although the fruit of the two species are very different.

Specimens. Harris 655, 674, 768, 1599, 2329, 2364, 2375, 2441, 2553, 2645, 2957, 2958.

Irvingia grandifolia (Engl.) Engl.

Ref. Harris, 1996: 177.

Habit. Tree 35 m high.

Habitat. Terra firma and seasonally flooded forest. Distribution. Nigeria to Gabon and Congo (Kinshasa). Local distribution. Ndakan.

Specimens. *Harris* 281, 863, 1130, 1345, 1900.

Irvingia robur Mildbr.

Ref. Harris, 1996: 182.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa) and Gabon. Local distribution. Bayanga, Ndakan.

Specimens. *Harris* 38, 108, 159, 2319, 2374, 2580.

Irvingia smithii Hook.f.

Ref. Harris, 1996: 185.

Habit. Tree 25 m high.

Habitat. Seasonally flooded and riparian forest. Distribution. Nigeria to Sudan, Congo (Kinshasa) and Angola. Local distribution. Bayanga, Ndakan.

Note. This species is co-dominant with *Trichilia retusa* and *Uapaca heudelotii* along the banks of the Sangha River.

Specimens. *Harris* 1537, 1567, 2438, 2572, 2633, 2729, 2748.

Irvingia wombolu Vermoesen

Ref. Harris, 1996: 191.

Habit. Tree 25 m high.

Habitat. Seasonally flooded and riparian forest, occasionally in terra firma forest. Distribution. Senegal to Sudan, Uganda and Angola. Local distribution. Bayanga, Ndakan.

Note. This species is very similar to *Irvingia gabonensis* and has been treated as a variety of that species by Okafor (1975). The mesocarp of the fruit is edible in *Irvingia gabonensis* and inedible in *I. wombolu*.

Specimens. Harris 549, 635, 1342, 2371, 2639, 2880; Fangonda 299.

Klainedoxa gabonensis Pierre ex Engl.

Ref. Harris, 1996: 153.

Habit. Tree 40 m high.

Habitat. Terra firma forest, occasionally in riparian forest. Distribution. Guinea Bissau to Sudan, Tanzania and Angola. Local distribution. Bayanga, Ndakan.

Note. This very variable species appears to have two forms in parts of Cameroon and Gabon, one form with small leaves and fruit and the

other with larger leaves and fruit. In this area, however, the range of variation is less and there is no consistent separtation of individuals on fruit and leaf size. There is a second species in this genus, *Klainedoxa trillesii* which occurs just to the west of the Sangha River in Cameroon. It has not yet been recorded in the Central African Republic.

Specimens. Harris 350, 508, 2289, 2299, 2311, 2320, 2536, 2646, 2728.

Ixonanthaceae

Phyllocosmus africanus (Hook.f.) Klotzsch

Ref. Oliver, F.T.A. 1: 273. 1868. Synonym. Ochthocosmus africanus Hook.f.

Habit. Tree to 35 m high.

Habitat. Terra firma, seasonally flooded and riparian forest. Distribution. Guinea to Gabon and Congo (Kinshasa). Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Fruit: February, September.

Note. Flowers when 2 m high.

Specimens. Harris 1066, 1208, 1802, 4191, 5574; Gentry 62597.

Labiatae

Hoslundia opposita Vahl

Ref. Hutchinson & Dalziel, F.W.T.A. 2: 456. 1963.

Habit. Vine.

Habitat. Light gaps. Distribution. Tropical Africa and Madagascar. Local distribution. Ndakan. Phenology. Flower: November.

Specimens. Harris 1565.

Hyptis lanceolata Poir.

Ref. Hutchinson & Dalziel, F.W.T.A. 2: 466. 1963.

Habit. Herb.

Habitat. By streams. Distribution. Tropical Africa and South America. Local distribution. Ndakan. Phenology. Flower: May.

Specimens. Harris 711.

Ocimum gratissimum L.

Ref. Hutchinson & Dalziel, F.W.T.A. 2: 452. 1963.

Habit. Herb.

Habitat. Old fields. Distribution. Tropical Africa and Asia. Local distribution. Ndakan. Phenology. Fruit: September.

Specimens. Harris 1108.

Platostoma africanum P.Beauv.

Ref. Hutchinson & Dalziel, F.W.T.A. 2: 453. 1963.

Habit. Herb.

Habitat. By streams. Distribution. Tropical Africa and India. Local distribution. Kongana. Phenology. Flower: February.

Specimens. Harris 5414.

Plectranthus decurrens (Gürke) J.K.Morton

Ref. Hutchinson & Dalziel, F.W.T.A. 2: 460. 1963.

Habit. Herb.

Habitat. By streams. Distribution. Nigeria to Gabon and Uganda. Local distribution. Kongana. Phenology. Flower: May, June.

Specimens. Harris 4903, 5032.

Solenostemon monostachyus (P.Beauv.) Briq.

Ref. Hutchinson & Dalziel, F.W.T.A. 2: 464. 1963.

Habit. Herb.

Habitat. Cleared ground. Distribution. Tropical Africa. Local distribution. Ndakan. Phenology. Fruit: March.

Specimens. Harris 304.

Lauraceae

Beilschmiedia congolana Robyns & R.Wilczek

Ref. Fouilloy, Fl. Cam. 18: 22. 1974.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Cameroon and Gabon to Congo (Kinshasa). Local distribution. Kongana, Lidjombo, Ndakan.

Specimens. Harris 660, 4786, 4788; Gentry 62764.

Beilschmiedia sp. A.

Habit. Tree 8 m high.

Habitat. Riparian forest. *Local distribution*. Kongana. *Phenology*. Flower: May.

Specimens. Harris 4897.

Beilschmiedia sp. B.

Habit. Tree 5 m high.

Habitat. Riparian forest. Local distribution. Kongana. Phenology. Flower: January.

Specimens. Harris 4352.

Lecythidaceae

Petersianthus macrocarpus (P.Beauv.) Liben

Ref. Liben, Fl. Afr. Cent. (Lecythidaceae): 2. 1971. Synonym. Combretodendron macrocarpum (P.Beauv.) Keay

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Guinea to Congo (Kinshasa) and Angola. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology.

Flower: April, May. Fruit: May (immature), July.

Specimens. Harris 325, 506, 649, 789, 4491, 4799, 4973; Carroll 1535; Gentry 62681.

Leeaceae

Leea guineensis G.Don

Ref. Descoings, Fl. Cam. 13: 134. 1972.

Habit. Tree 5 m high.

Habitat. Terra firma forest. Distribution. Tropical Africa and Madagascar.Local distribution. Ndakan. Phenology. Flower: July. Fruit: July.Specimens. Fay 8518.

Leguminosae

subfamily Caesalpinioideae

Afzelia bipindensis Harms

Ref. Aubréville, Fl. Cam. 9: 116. 1970.

Habit. Tree 25 m high.

Habitat. Terra firma and riparian forest. Distribution. Nigeria to Uganda and Angola, also in Gabon. Local distribution. Kongana, Lidjombo, Ndakan. Phenology. Flower: March, April, May. Fruit: September, November.

Specimens. Harris 551, 1069, 1306, 1313, 4069, 4988, 5491; Fay 8717.

Anthonotha macrophylla P.Beauv.

Ref. Aubréville, Fl. Cam. 9: 196. 1970.

Habit. Tree 15 m high.

Habitat. Terra firma forest, riparian forest and old fields. Distribution.
Guinea to Congo (Kinshasa) and Angola. Local distribution. Kongana,
Lidjombo, Ndakan. Phenology. Flower: April, May. Fruit: July,
November.

Specimens. Harris 563, 1227, 1309, 3445, 4426, 4913; Fay 8718; Gentry 62614; Thomas 8201.

Berlinia craibiana Baker f.

Ref. Aubréville, Fl. Cam. 9: 254. 1970.

Habit. Tree to 20 m high.

Habitat. Seasonally flooded forest and very occasionally terra firma forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local

distribution. Ndakan, Kongana. Phenology. Flower: January, February, April, July.

Specimens. Harris 260, 3498, 4348; Fangonda 514.

Berlinia grandiflora (Vahl) Hutch. & Dalziel

Ref. Aubréville, Fl. Cam. 9: 248. 1970.

Habit. Tree 20 m high.

Habitat. Riparian forest. Distribution. Guinea to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: December.

Note. Neither the description nor the specimens cited by Hauman (F.C.B. 3: 1952) under *B. grandiflora* appear to correspond to this species Specimens. *Harris* 1651, 1834.

Brachystegia cynometroides Harms vel sp. aff.

Ref. Aubréville, Fl. Cam. 9: 260. 1970.

Habit. Tree 40 m high.

Habitat. Terra firma forest. *Distribution*. Cameroon. *Local distribution*. Kongana.

Specimens. Harris 5009.

Cassia mannii Oliv.

Ref. Aubréville, Fl. Cam. 9: 53. 1970.

Habit. Tree to 20 m.

Habitat. Wet places in forest. Distribution. Nigeria to Sudan, Uganda and Congo (Kinshasa). Local distribution. Dzanga, Ndakan. Phenology.

Flower: January, February. Fruit: October.

Specimens. Harris 1784, 3569; Fangonda 271.

Copaifera mildbraedii Harms

Ref. Aubréville, Fl. Cam. 9: 132. 1970.

Habit. Tree to 35 m high.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Kongana, Lidjombo, Ndakan. Phenology. Fruit: January (immature), February, April, October.

Specimens. Harris 107, 510, 1347, 1348, 1478, 1824, 3414, 4538, 4779.

Cynometra sanagaensis Aubrév.

Ref. Aubréville, Fl. Cam. 9: 79. 1970.

Habit. Tree to 25 m.

Habitat. Riparian forest on the Sangha River. Distribution. Cameroon. Local distribution. Ndakan. Phenology. Flower: February, September. November. Fruit: September. (immature).

Note. This species was identified as *Cynometra congensis* using the key by Léonard (1951), however no specimens of that species were available at Kew and the material was a good match with the isotype of *C. sanagaensis*.

Specimens. Harris 1065, 1505, 1536, 1847; Gentry 62610.

Daniellia pynaertii De Wild.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 463. 1958.

Habit. Tree to 35 m.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Flower: January, October. Fruit: May, July, August.

Specimens. *Harris* 98, 784, 938, 1364, 1528; *Fay* 8491.

Detarium macrocarpum Harms

Ref. Aubréville, Fl. Cam. 9: 138. 1970.

Habit. Tree to 40 m.

Habitat. Terra firma and riparian forest. Distribution. Nigeria to Central African Republic. Local distribution. Bai Hoku, Lidjombo, Ndakan.

Note. This area is apparently close to the eastern edge of the range of this species, it was not recorded from Congo (Kinshasa) by Léonard (F.C.B. 3. 1952.).

Specimens. Harris 1383, 1384; Fay 8747; Carroll 1042.

Dialium bipindense Harms

Ref. Aubréville, Fl. Cam. 9: 39. 1970.

Habit. Tree to 15 m.

Habitat. Seasonally flooded forest, abandonded roads and fields. Local distribution. Bayanga, Kongana, Ndakan. Phenology. Fruit: June.

Note. This species may prove to be conspecific with either *D. excelsum*, *D. reygaertii*, or both. The pellucid gland dots described by Aubréville (Fl. Cam. 9. 1970) from *D. bipindensis* are only just visible on the type specimens at Kew as 2–3 dots per leaf.

Specimens. Harris 1243, 1311, 4698; Gentry 62582.

Dialium dinklagei Harms

Ref. Aubréville, Fl. Cam. 9: 40. 1970.

Habit. Tree 15 m high.

Habitat. Old fields. Distribution. Guinea to Congo (Kinshasa). Local distribution. Bayanga. Phenology. Fruit: June.

Specimens. Harris 3322.

Dialium guineense Willd. vel sp. aff.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 449. 1958.

Habit. Tree 3 m high.

Habitat. Riparian forest. *Local distribution*. Ndakan. *Phenology*. Flower: August. Fruit: September.

Specimens. Harris 961, 1040.

Dialium pachyphyllum Harms

Ref. Harms, 1915: 468.

Habit. Tree to 30 m.

Habitat. Terra firma forest. Distribution. Cameroon and Gabon to Congo (Brazzaville). Local distribution. Dzanga, Ndakan.

Note. I have examined the Kew duplicates of Zenker 2360 and 2388 which Aubréville (Fl. Cam. 8, 1968) lists as syntypes. In addition I have seen *Tessmann* 436 (K) cited by Harms. I disagree with Aubréville who considered *D. polyanthum* to be a synonym of *D. pachyphyllum*: their fruit are very different. I also disagree with Breteler (1993, unpublished manuscript "Le genre Dialium au Gabon") who considers *D. pachyphyllum* to be a synonym of *D. angolense*.

Specimens. *Harris* 1204, 1995, 3536, 3537; *Gentry* 62677, 62716.

Dialium polyanthum Harms

Ref. Harms, 1915: 469.

Habit. Tree to 30 m.

Habitat. Mixed species terra firma forest. Distribution. Cameroon and Gabon to Congo (Brazzaville). Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: April, May. Fruit: October, September.

Note. This species was sunk into *D. pachyphyllum* by Aubréville (Fl. Cam. 9, 1970). Although the leaves of the two species are rather similar the fruit are very different. I have examined Kew duplicates of all the original material cited by Harms (1915) with the exception of *Mildbraed* 6108.

Specimens. Harris 223, 3463, 3983, 4078, 4082, 4335, 4967; Carroll 1128, 1512, 1522; Remis 4-92, 16-92, 107-95.

Dialium tessmannii Harms

Ref. Aubréville, Fl. Cam. 9: 35. 1970.

Habit. Tree.

Habitat. Abandoned logging road. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Kongana.

Specimens. Harris 4545.

Dialium zenkeri Harms

Ref. Aubréville, Fl. Cam. 9: 42. 1970.

Habit. Tree to 25 m.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Dzanga, Bai Hoku, Kongana, Ndakan. Phenology. Fruit: September, November.

Note. This is considered by Breteler (1993, unpublished manuscript "Le genre *Dialium* au Gabon") to be a synonym of *D. guineense*. I do not fully understand the variation in *D. guineense* in west Africa but it does appear different and in the absence of a revision across their whole range I prefer to keep them separate.

Specimens. Harris 1205, 1308, 3629, 5573, 5577; Carroll 1558; Remis 111.

Erythrophleum ivorense A.Chev.

Ref. Aubréville, Fl. Cam. 9: 317. 1970.

Habit. Tree to 35 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa). Local distribution. Bai Hoku, Kongana, Lidjombo, Ndakan. Phenology. Flower: February, March.

Note. Most of the characters used to separate *E. ivorense* and *E. suaveolens* by Aubréville (Fl. Cam. 9. 1970) and Hutchinson & Dalziel (F.W.T.A. 1. 1958 - treating *E. suaveolens* as *E. guineense*), break down when enough specimens are examined. Leaflet shape and pedicel length appear to be the most consistent characters. There are specimens from Congo (Kinshasa) which are very similar to the material from this area although the species is not recorded from Congo (Kinshasa) by Wilczek (F.C.B. 3. 1952).

Specimens. Harris 322, 1988, 4744, 4787, 5534; Carroll 1058, 1076, 1081, 1085.

Gilbertiodendron dewevrei (De Wild.) J.Léonard

Ref. Aubréville, Fl. Cam. 9: 211. 1970.

Habit. Tree to 40 m high.

Habitat. Forms closed-canopy monodominant stands which can be up to 2 km wide. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Bai Hoku, Lidjombo, Ndakan. Phenology. Flower: April, March.

Specimens. Harris 570, 1939, 1971; Fay 8779; Gentry 62711; Goldsmith 214.

Guibourtia demeusei (Harms) J.Léonard

Ref. Aubréville, Fl. Cam. 9: 124. 1970.

Habit. Tree to 25 m.

Habitat. Seasonally flooded forest. Distribution. Cameroon, to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Fruit: November

Specimens. Harris 1534.

Oxystigma buchholzii Harms

Ref. Aubréville, Fl. Cam. 9: 130. 1970.

Habit. Tree to 30 m high.

Habitat. Riparian forest on the Sangha River and smaller streams.

Distribution. Cameroon to Congo (Kinshasa). Local distribution.

Dzanga, Ndakan. *Phenology*. Flower: February, October. Fruit: April. Specimens. *Harris* 559, 1921, 3592.

Oxystigma oxyphyllum (Harms) J.Léonard

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 466. 1958.

Habit. Tree to 35 m.

Habitat. Forest. Distribution. Nigeria to Gabon and Congo (Kinshasa).

Local distribution. Bai Hoku, Ndakan. Phenology. Fruit: October.

Note. Aubréville, (Fl. Cam. 9. 1970) keeps this separate from the other species of *Oxystigma* as *Pterygopodium oxyphyllum*. The conclusions of Léonard (1950b) who studied all the species seems preferable.

Specimens. Harris 1209; Carroll 1494.

Pachyelasma tessmannii (Harms) Harms

Ref. Aubréville, Fl. Cam. 9: 321. 1970.

Habit. Tree to 40 m.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa).

Local distribution. Kongana, Ndakan.

Specimens. Harris 1969, 3972, 5374; Remis 9-92.

Stemonocoleus micranthus Harms

Ref. Aubréville, Fl. Cam. 9: 174. 1970.

Habit. Tree to 25 m high.

Habitat. Terra firma forest and riparian forest on the Sangha River.

Distribution. Côte d'Ivoire to Central African Republic. Local distribution. Kongana, Ndakan, Bayanga. Phenology. Flower: May, September. Fruit: March.

Note. This is probably the easternmost record of this species, it is not recorded in from Congo (Kinshasa) by Léonard (F.C.B. 3. 1952.). **Specimens.** *Harris* 1067; *Fangonda* 535; *Wraber* LJU 49552.

Tessmannia africana Harms

Ref. Aubréville, Fl. Cam. 9: 158. 1970.

Habit. Tree to 35 m.

 ${\it Habitat.~Gilbertiodendron~dewevrei}~{\rm and~mixed~species~\it terra~\it firma~forest.}$

Distribution. Gabon, Cameroon, Congo (Kinshasa). Local distribution.

Bai Hoku, Kongana, Ndakan. Phenology. Flower: May.

Specimens. Harris 1203, 1244, 1324, 1439, 3407, 3502, 4646, 4889, 5546.

Tessmannia anomala (Micheli) Harms

Ref. Aubréville, Fl. Cam. 9: 156, 1970.

Habit. Tree to 35 m.

Habitat. Terra firma forest. Distribution. Gabon, Congo (Kinshasa),

Cameroon. *Local distribution*. Bai Hoku, Kongana, Lidjombo. Specimens. *Harris* 3405, 4199, 4768, 4769, 4914, 5571.

Specimens 1107/15 5 100, 1155, 1700, 1705, 151 1,00711

Tessmannia lescrauwaetii (De Wild.) Harms vel sp. aff.

Ref. Léonard, 1950a: 46.

Habit. Tree to 30 m.

Habitat. Gilbertiodendron dewevrei and mixed species terra firma forest. Distribution. Cameroon, Gabon, Congo (Kinshasa). Local distribution.

Kongana, Lidjombo, Mondika.

Specimens. *Harris* 4160, 4331, 4516, 4636, 4766, 4767, 4768B, 4770A, 4780B.

subfamily Mimosoideae

Acacia kamerunensis Gand.

Ref. Villiers, Fl. Gabon 31: 123. 1989.

Habit. Liana to 25 m.

Habitat. Terra firma forest. Distribution. Sierra Leone to Uganda. Local distribution. Bai Hoku, Kongana. Phenology. Fruit: June (immature).

Note. This species with several others, including *A. pentagona* were previously called *Acacia pennata* but Brenan & Exell (1957) showed that *A. pennata* is an Asian species which does not occur in Africa. Specimens. *Harris* 3376, 4065, 4446; *Carroll* 1100.

Acacia pentagona (Schumach. & Thonn.) Hook.f.

Ref. Villiers, Fl. Gabon 31: 128. 1989.

Habit. Liana to 20 m.

Habitat. Light gaps in *terra firma* forest. *Distribution*. Guinea to Sudan, Tanzania, Mozambique, Zimbabwe and Angola. *Local distribution*. Konganan, Ndakan. *Phenology*. Flower: March.

Note. See note under *Acacia kamerunensis*. Specimens. *Harris* 301, 4445.

Adenopodia sclerata (A.Chev.) Brenan

Ref. Villiers, Fl. Gabon 31: 83. 1989.

Habit. Liana 15 m high.

Habitat. Terra firma forest, roadsides and abandoned fields. Distribution. Liberia to Congo (Kinshasa), Angola and Gabon. Local distribution.

Kongana, Ndakan. *Phenology*. Flower: June, August, September.

Specimens. *Harris* 1007, 1105, 1673, 4066, 5121.

Albizia adianthifolia (Schumach.) W.Wight

Ref. Brenan, 1952: 520.

Habit. Tree 25 m.

Habitat. Terra firma forest. Distribution. Senegal to Tanzania and South Africa. Local distribution. Bai Hoku, Ndakan. Phenology. Flower: March. Fruit: January.

Specimens. Harris 91; Carroll 1091.

Albizia ferruginea (Guill. & Perr.) Benth.

Ref. Villiers, Fl. Gabon 31: 148. 1989.

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Senegal to Uganda and Angola. Local distribution. Bai Hoku, Kongana, Lidjombo, Ndakan. Phenology. Flower: April. Fruit: February, March, October.

Specimens. Harris 229, 1246, 1328, 1465, 1495, 4183, 5364, 5579; Fay 8707; Fangonda 505; Carroll 1012, 1088, 1150.

Albizia glaberrima (Schumach. & Thonn.) Benth. var. *glaberrima Ref.* Villiers, Fl. Gabon 31: 142. 1989.

Habit. Tree to 20 m.

Habitat. Terra firma forest. *Distribution*. Ghana to Uganda and Angola. Not yet collected from Gabon. *Local distribution*. Lidjombo, Ndakan. Specimens. *Fay* 8456, 8721.

Albizia gummifera (J.F.Gmel.) C.A.Sm. var. *ealaensis* (De Wild.) Brenan *Ref.* Hutchinson & Dalziel, F.W.T.A. 1: 503. 1958.

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Bai Hoku, Kongana, Lidjombo, Ndakan. Phenology. Flower: March, May. Fruit: January March.

Note. This well defined taxon was made a variety of *Albizia gummifera* by Brenan (1952) when he described it as "an extremely distinct variety

from typical *A. gummifera*". Villiers (1981, Fl. Gabon 31) has since transferred the variety, on the grounds of similar pubescence, to *Albizia adianthifolia* and added what Brenan (1952) considered to be a separate species, *Albizia intermedia*, for which he made the combination *Albizia adianthifolia* var. *intermedia*. I make no attempt to adjucate on this complicated situation as both authors appear to have made careful studies. However, since the fruit of our taxon is closer to that of the type variety of *Albizia gummifera* than to that of the type variety of *A. adanthifolia* I prefer to follow Brenan but I draw attention to a point he makes in his discussion: "it might be possible to make a case for maintaining *ealaensis* as a species" (Brenan, 1952: 536).

Specimens. Harris 367, 1236, 1335, 3570, 4205, 4206, 4685, 5404, 5487, 5552, 5569; Fay 8567; Wraber LJU 49470.

Albizia laurentii De Wild.

Ref. Villiers, Fl. Gabon 31: 135. 1989.

Habit. Tree 15 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Cameroon, Gabon and Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: May, June.

Specimens. Harris 817; Fay 8543.

Cathormion altissimum (Hook.f.) Hutch. & Dandy

Ref. Villiers, Fl. Gabon 31: 164. 1989. Synonym. Arthrosamanea altissima (Hook.f.) G.C.C.Gilbert & Boutique

Habit. Tree 25 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Senegal to Zambia and Gabon. Local distribution. Ndakan. Phenology. Flower: November. Fruit: July.

Specimens. Harris 854, 1577.

Dichrostachys cinerea (L.) Wight & Arn. subsp. *platycarpa* (Welw. ex Bull) Brenan & Brummitt

Ref. Villiers, Fl. Gabon 31: 116. 1989. *Synonym. Dichrostachys glomerata* (Forssk.)Chiov. *Habit* Tree 10 m high.

Habitat. Poorly drained clearings in forest, old roads and abandoned fields.Distribution. West and Central Africa. Local distribution. Ndakan.Phenology. Flower: June, July.

Note. The specimens collected in this area key out in Brenan & Brummitt (1965) as the *D. cinerea* subsp. *platycarpa* var. *platycarpa*. Villiers (Fl. Gabon, 31. 1987), however, has lumped the two forest varieties of subsp. *platycarpa* along with the widespread savanna subsp. *africanum*.

The taxon is treated as *Dichrostachys glomerata* by Hutchinson and Dalziel (F.W.T.A. 1. 1958).

Specimens. Harris 838; Fay 8584.

Entada gigas (L.) Fawc. & Rendle

Ref. Villiers, Fl. Gabon 31: 74. 1989.

Habit. Liana 20 m high.

Habitat. Riparian forest. Distribution. Central America to Congo (Kinshasa). Local distribution. Kongana, Lidjombo, Ndakan.

Phenology. Flower: February, May. Fruit: November.

Specimens. *Harris* 1541, 1865; *Fay* 8623; *Fangonda* 534.

Fillaeopsis discophora Harms

Ref. Villiers, Fl. Gabon 31: 38. 1989.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa).

Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: December. Fruit: March.

Specimens. Harris 1224, 4088, 4111, 5550; Carroll 1094, 1136.

Mimosa pigra L.

Ref. Villiers, Fl. Gabon 31: 87. 1989.

Habit. Shrub.

Habitat. Banks of the Sangha River. Distribution. South America, Africa and Madagascar. Local distribution. Ndakan. Phenology. Fruit: March. Specimens. Harris 2925.

Parkia filicoidea Welw. ex Oliv.

Ref. Villiers, Fl. Gabon 31: 31. 1989.

Habit. Tree 30 m.

Habitat. Terra firma forest and riparian forest on the Sangha River.

Distribution. Côte d'Ivoire to Tanzania and Zambia. Local distribution. Bai Hoku, Ndakan. Phenology. Flower: February, March.

Note. This species shows a remarkable range in its ecology which was documented by Hopkins & White (1984).

Specimens. Harris 316, 1352, 1836, 5572.

Pentaclethra macrophylla Benth.

Ref. Villiers, Fl. Gabon 31: 19. 1989.

Habit. Tree 30 m high.

Habitat. Terra firma forest, roadsides and old fields. Distribution. Senegal to Angola and Congo (Kinshasa). Local distribution. Bai Hoku, Lidjombo, Ndakan. Phenology. Flower: March, April.

Specimens. Harris 93, 153, 412, 5556; Fay 8629; Carroll 1086; Gentry 62707.

Piptadeniastrum africanum (Hook.f.) Brenan

Ref. Villiers, Fl. Gabon 31: 57. 1989.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Distribution. Senegal to Sudan and Angola.

Local distribution. Kongana, Lidjombo, Ndakan. Phenology. Flower:

September. Fruit: January, December.

Specimens. *Harris* 14, 193, 1128, 4319; *Fay* 8689.

Tetrapleura tetraptera (Schumach. & Thonn.) Taub.

Ref. Villiers, Fl. Gabon 31: 64. 1989.

Habit. Tree 25 m high.

Habitat. Terra firma forest, roadsides, old fields and riparian forest.

Distribution. Senegal to Tanzania and Angola. *Local distribution*. Bai Hoku, Lidjombo, Ndakan. *Phenology*. Flower: March, April. August. Fruit: January, September (immature).

Specimens. Harris 346, 560, 1015, 1070; Fay 8583; Goldsmith 202.

subfamily Papilionoideae

Aeschynomene cristata Vatke

Ref. Léonard, F.C.B. 5: 266. 1954.

Habit. Shrub.

Habitat. In standing water in marshy clearing. Distribution. Benin to Sudan, Tanzania and Madagascar. Local distribution. Ndakan.

Phenology. Flower: September.

Specimens. Harris 1160.

Aeschynomene sensitiva Sw.

Ref. Léonard, F.C.B. 5: 258. 1954.

Habit. Herb, subwoody below.

Habitat. Wet clearing in forest. Distribution. Central and South America, Senegal to Uganda and Madagascar. Local distribution. Dzanga,

Ndakan. *Phenology*. Flower: August, December. Fruit: August, December.

Specimens. Harris 978, 3900.

Aganope lucida (Baker) Polhill

Ref. Pohill. 1971: 270.

Habit. Liana 20 m high.

Habitat. Terra firma forest and seasonally flooded forest. Distribution. Cameroon, Gabon, Congo, Congo (Kinshasa) and Angola. Local

distribution. Kongana, Ndakan. *Phenology*. Flower: May, June, July. Fruit: July. September.

Specimens. Harris 858, 913, 1047, 1663, 3936, 4425, 4470, 4637, 4682, 5068, 5589; Fay 8417; Gentry 62667, 62720; Thomas 7222.

Airyantha schweinfurthii (Taub.) Brummitt

Ref. Brummitt, 1968: 378.

Habit. Liana 5 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Bayanga, Ndakan. Phenology. Flower: March, July, August. Fruit: May.

Note. The name *Baphiastrum spathaceum* was used by Toussaint (F.C.B. 4. 1953) for this species but that name is incorrect, see Brummitt (1968) for explanation.

Specimens. Harris 731, 963, 2028; Gentry 62580.

Amphimas pterocarpoides Harms

Ref. Aubréville, Fl. Cam. 9: 32. 1970.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Distribution. Guinea to Sudan and Congo (Kinshasa). Local distribution. Lidjombo, Ndakan. Phenology. Fruit: January.

Specimens. *Harris* 158, 244, 657; *Fay* 8474, 8581, 8842.

Angylocalyx pynaertii De Wild.

Ref. Yakovlev & al. 1968: 324. Synonym. Angylocalyx zenkeri Harms

Habit. Tree 25 m high.

Habitat. Terra firma and riparian forest. Distribution. Nigeria to Congo (Kinshasa) and Angola. Local distribution. Kongana, Ndakan, Bai Hoku. Phenology. Flower: March, April. Fruit: May.

Specimens. Harris 336, 409, 3587, 5501; Fay 8434; Fangonda 502; Carroll 1579; Goldsmith 224.

Baphia lepidobotrys Harms subsp. silvatica (Harms) Soladoye

Ref. Soladoye, 1985: 346.

Habit. Shrub.

Habitat. Terra firma forest. Distribution. Cameroon and Gabon. Local distribution. Bai Hoku. Phenology. Flower: October (bud).

Note. Letouzey (1979) maintained *Baphia silvatica* as distinct from *Baphia lepidobotrys* on habit as well as geographical and ecological grounds. Specimens. *Carroll* 1503.

Baphia pubescens Hook.f.

Ref. Soladove, 1985: 362.

Habit. Liana 10 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Liberia to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Flower: September.

Specimens. Harris 1068.

Calopogonium mucunoides Desv.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 563.

Habit. Herbaceous vine.

Habitat. Roadsides and old fields. *Distribution*. Tropical America, escaped and widespread in tropical Africa. *Local distribution*. Bayanga.

Phenology. Flower: April. Fruit: April.

Specimens. Harris 4870.

Centrosema pubescens Benth.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 560. 1958.

Habit. Herbaceous vine.

Habitat. Old fields. Distribution. Introduced from tropical America. Local distribution. Bayanga.

Specimens. Harris 4262, 4864.

Crotalaria ochroleuca G.Don

Ref. Polhill, 1982: 188.

Habit. Shrub 1.8 m high.

Habitat. Fields. Distribution. Senegal to Angola and Mozambique. Local distribution. Bayanga. Phenology. Flower: April. Fruit: April.

Note. Immigrants from the savanna regions of Central African Republic cultivate this species as a spinach and it may have escaped from their fields.

Specimens. Harris 4871.

Crotalaria pallida Aiton var. pallida

Ref. Polhill, 1982: 186.

Habit. Herb.

Habitat. Old fields. Distribution. Pantropical. Local distribution. Bayanga. *Phenology*. Flower: April. Fruit: April.

Specimens. Harris 4868.

Crotalaria retusa L.

Ref. Polhill, 1982: 272.

Habit. Herb.

Habitat. Old fields. Distribution. Pantropical probably Asian origin. Local distribution. Bayanga. Phenology. Flower: April. Fruit: April.

Note. Introduced to this area in improved fallow trials.

Specimens. Harris 4869.

Crotalaria spectabilis Roth

Ref. Polhill, 1982: 373.

Habit. Shrub 1.8 m high.

Habitat. Old fields. Distribution. Introduced from Asia. Local distribution. Bayanga. Phenology. Flower: April. Fruit: April.

Note. This species was brought to Bayanga by the conservation and rural development project there. Polhill (1982) states that this species was introduced as a fodder and green manure in Africa but is "notably poisonous and now not recommended".

Specimens. Harris 4872.

Dalbergia afzeliana G.Don

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 516. 1958.

Habit. Liana 10 m high.

Habitat. Old fields. Distribution. Guinea Bissau to Gabon, Congo(Kinshasa) and Angola. Local distribution. Ndakan. Phenology. Flower: August.

Specimens. *Harris* 1012, 1576, 1924, 1941, 2015, 3309, 3323.

Dalbergia ealaensis De Wild.

Ref. Cronquist, F.C.B. 6: 60. 1954.

Habit. Liana 35 m high.

 $Habitat. \ Riparian \ and \ Gilbertio dendron \ dewevrei \ forest. \ Distribution.$

Gabon, Cameroon, Congo (Kinshasa). *Local distribution*. Dzanga, Kongana. *Phenology*. Flower: December.

Specimens. *Harris* 3918, 4161, 4735.

Dalbergia laxiflora Micheli

Ref. Cronquist, F.C.B. 6: 58. 1954.

Habit. Liana.

Habitat. Riparian forest on the Sangha River. Distribution. Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: November. Fruit: February.

Note. Apparently the first record outside Congo (Kinshasa). Specimens. *Harris* 1503, 1835.

Dalbergia louisii Cronquist

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 515. 1958.

Habit. Scandent shrub forming thickets.

Habitat. Seasonally flooded sedge meadow. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Njeke. Phenology. Fruit: February.Specimens. Harris 1797.

Dalbergiella welwitschii (Baker) Baker f.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 517. 1958.

Habit. Liana 10 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Guinea to Gabon, Angola and Congo (Kinshasa). Local distribution. Bayanga, Ndakan. Phenology. Flower: March. Fruit: February.
 Specimens. Harris 279, 1840.

Dalhousiea africana S.Moore

Ref. Breteler, 1994: 36.

Habit. Shrub or liana to 30 m high.

Habitat. Terra firma forest, old fields, abandoned roads. Distribution. Cameroon to Congo (Kinshasa) and Angola. Local distribution. Bai Hoku, Kongana, Bayanga, Ndakan. Phenology. Flower: January, February, March, May, June, July.

Specimens. Harris 57, 831, 1575, 1678, 3302, 3395, 4432, 4939; Fay 8822; Carroll 1080; Gentry 62699.

Desmodium adscendens (Sw.) DC.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 585. 1958.

Habit. Herb.

Habitat. Forest track. Distribution. Tropical Africa and Tropical America.Local distribution. Kongana. Phenology. Flower: February.Specimens. Harris 4575.

Dewevrea bilabiata Micheli

Ref. Hauman, F.C.B. 5: 61. 1954.

Habit. Liana 20 m high.

Habitat. Forest and riparian forest on the Sangha River. Distribution.Cameroon to Congo (Kinshasa). Apparently not in Gabon. Local distribution. Kongana, Ndakan, Lidjombo. Phenology. Flower: February, June, October. Fruit: February.

Specimens. Harris 1432, 1818, 3394, 3951, 4704, 5063; Fay 8624; Carroll 1550; Gentry 62601.

Dioclea reflexa Hook.f.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 574. 1958.

Habit. Liana 15 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Pantropical. Local distribution. Ndakan. Phenology. Flower: September. Fruit: November.

Specimens. Harris 1043, 1548.

Eriosema glomeratum (Guill. & Perr.) Hook.f.

Ref. Jacques-Felix, 1971: 152.

Habit. Shrub 1 m high.

Habitat. Seasonally flooded clearing. Distribution. Tropical Africa. Local distribution. Bayanga. Phenology. Fruit: January.

Specimens. Harris 4292.

Eriosema parviflorum E.Mey.

Ref. Verdcourt, 1971a: 124.

Habit. Herbaceous vine.

Habitat. Seasonally flooded sedge meadow. Distribution. Sierra Leone to Zambia. Local distribution. Njeke. Phenology. Flower: May. Fruit: September, May.

Note. Although several infraspecific taxa have been described (Verdcourt 1971a, Jacques-Felix 1971) nobody has examined the variation across the whole range of the species and it is not clear to which of these infraspecific taxa the material from this area belongs.

Specimens. Harris 606, 1076.

Erythrina droogmansiana De Wild. & T.Durand

Ref. Krukoff & Barneby, 1974: 422.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Cameroon, Congo (Kinshasa) and Gabon. Local distribution. Ndakan.

Specimens. Harris 1314.

Indigofera macrophylla Schumach.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 541. 1958.

Habit. Scandent shrub 1.5 m high.

Habitat. Old fields. Distribution. Senegal to Nigeria. Local distribution. Lidiombo, Ndakan. Phenology. Flower: August, October.

Note. This is apparently the easternmost record of this species. **Specimens.** *Harris* 1019, 1376; *Fay* 8710.

Leptoderris brachyptera (Benth.) Dunn

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 521. 1958.

Habit. Liana 15 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Senegal to Angola. Local distribution. Ndakan. Phenology. Flower: July.

Note. In the absence of fruit I first identified this as Leptoderris laurentii from central Congo (Kinshasa), however, I now consider it to be closer to L. brachyptera which is widespread in west Africa. The material does key out to this species in Baker (1929).

Specimens. Thomas 7244.

Leptoderris congolensis (De Wild.) Dunn

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 521, 1958.

Habit. Liana 15 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Nigeria to Gabon, Angola and Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: July. Fruit: September.

Specimens. Harris 1060; Thomas 7279.

Leptoderris sp. aff. nobilis (Welw. ex Baker) Dunn

Ref. Hauman, F.C.B. 6: 39. 1954.

Habit. Liana 15 m high.

Habitat. Abandoned logging road. Local distribution. Kongana.

Specimens. Harris 4427.

Leucomphalos brachycarpus (Harms) Breteler

Ref. Breteler, 1994: 13.

Habit. Liana 10 m high.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon, to Congo (Kinshasa). Local distribution. Kongana. Phenology. Fruit: April, October.

Specimens. Harris 3393, 3524; Fangonda 512; Carroll 1075.

Leucomphalos mildbraedii (Harms) Breteler

Ref. Breteler, 1994: 31. Synonym. Bowringia mildbraedii Harms

Habit. Liana 5 m high.

Habitat. Terra firma forest, especially in light gaps and roadside vegetation. Distribution. Nigeria to Congo (Kinshasa) and Madagascar. Local distribution. Bayanga, Bai Hoku, Kongana, Lidjombo, Salcapa, Ndakan. Phenology. Flower: February, March, June. Fruit: February, March, June.

Specimens. Harris 876, 4525, 4824, 5058, 5127, 5479; Carroll 1062; Wraber LJU 49524.

Millettia barteri (Benth.) Dunn

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 526. 1958.

Habit. Liana to 25 m high.

Habitat. Seasonally flooded forest and terra firma forest. Distribution.Senegal to Sudan and Gabon. Local distribution. Dzanga, Bayanga,Kongana, Ndakan. Phenology. Flower: March, May, June. Fruit: May,July.

Specimens. *Harris* 732, 736, 750, 860, 888, 3330, 3346, 5132, 5464; *Fay* 8429.

Millettia drastica Welw. ex Baker

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 527. 1958.

Habit. Tree to 15 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Sudan, Congo (Kinshasa) and Angola. Local distribution. Ndakan. Phenology. Flower: June. Fruit: October.

Specimens. Harris 691, 815, 1211, 1459, 1996, 2013.

Millettia griffoniana Baill.

Ref. Polhill, 1971: 260.

Habit. Tree 10 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Côte d'Ivoire to Congo (Kinshasa) and Angola. Local distribution. Ndakan. Phenology. Fruit: July.

Specimens. Thomas 7250.

Millettia lucens (Scott-Elliot) Dunn

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 525. 1958.

Habit. Liana 20 m high.

Habitat. Terra firma forest and riparian forest on the Sangha River. Distribution. Sierra Leone and Liberia. Local distribution. Kongana, Bayanga, Ndakan. Phenology. Flower: September. Fruit: January, February.

Note. This record appears to represent a range extension of 2 500 km. The material was compared against the closely related *Millettia lacus-albertii* from eastern Congo (Kinshasa) and Uganda but the presence of stipels and the pubescent style listed by Gillett (1961) clearly identify the material from Dzanga-Sangha as *M. lucens*. The fruits, which Gillett (1961) records as unknown, are 4–5 seeded, 9 cm long, 2.2 cm wide, covered in short brown appressed hairs and have a 3 mm beak.

Specimens. Harris 1085, 1153, 4293, 4486, 4528, 5450; Gentry 62487, 62590.

Millettia sanagana Harms

Ref. Harms, 1899: 288.

Habit. Tree 6 m high.

Habitat. Light gaps and seasonally flooded forest. Distribution. Cameroon.Local distribution. Bai Hoku, Ndakan. Phenology. Flower: July,November. Fruit: January, August, November.

Note. The original description of Harms (1889) in which he refers to leaflets as glabrous is slightly misleading. The type and all other material I have examined have appressed hairs on the main nerves on the underside of the leaflets, in addition to those on the midrib described by Harms. The type at Kew also has very short hairs on the lamina which can be seen with a X 10 lens. Other material from Cameroon has longer hairs on the lamina. The specimens cited by Hutchinson and Dalziel (F.W.T.A. 1: 526. 1958) are not this species.

Specimens. Harris 110, 1025, 1511, 1744, 3527; Fay 8326, 8336, 8524; Carroll 1539, 1585; Gentry 62560

Millettia vermoesenii De Wild.

Ref. De Wildeman, 1925: 356.

Habit. Liana to 20 m high.

Habitat. Forest, light gaps and old fields. Distribution. Congo (Kinshasa) and Cameroon. Local distribution. Lidjombo, Ndakan. Phenology. Flower: February (bud), March, October. Fruit: March.

Note. Hauman (F.C.B. 5. 1954) reduced this species to a variety of *Millettia comosa*. It appears to me, however, that most of the specimens of *Millettia comosa* var. *comosa* cited by Hauman (F.C.B. 5. 1954) are not conspecific with the isotype *of Millettia vermoesenii* at Kew and I therefore prefer to keep the species separate. I have not seen the type of *Millettia comosa*.

Specimens. Harris 315, 1390, 1466, 1474, 1911; Fay 8574; Gentry 62727, 62748.

Mucuna flagellipes Vogel ex Hook.f.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 561.

Habit. Liana.

Habitat. Streamsides and seasonally flooded forest. Distribution. Sierra
 Leone to Uganda and Angola. Local distribution. Dzanga, Ndakan.
 Phenology. Flower: August. Fruit: January, December.
 Specimens. Harris 198, 959, 3894.

Ormocarpum sennoides (Willd.) DC. subsp. hispidum (Willd.) Brenan & J.Léonard

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 576. 1958.

Habit. Shrub.

Habitat. Seasonally flooded forest. Distribution. Senegal to Angola and Sri Lanka. Local distribution. Ndakan. Phenology. Flower: March. Specimens. Harris 284.

Pericopsis elata (Harms) Meeuwen

Ref. Knapp-van Meeuwen, 1962: 216. Synonym: Afrormosia elata Harms

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Ndakan.

Specimens. Harris 1408.

Platysepalum chevalieri Harms

Ref. Gillett, 1960: 466.

Habit. Tree 5 m high.

Habitat. Old fields. Distribution. Central African Republic, Congo(Kinshasa). Local distribution. Lidjombo. Phenology. Flower: January.Specimens. Harris 4258; Fay 8604.

Psophocarpus scandens (Endl.) Verdc.

Ref. Verdcourt & Halliday, 1978: 205.

Habit. Herbaceous vine.

Habitat. Riparian forest on the Sangha River. *Distribution*. Nigeria to Madagascar. *Local distribution*. Ndakan. *Phenology*. Flower: March.

Note. Some specimens of this species are cited in F.W.T.A. (Hutchinson & Dalziel, 1958: 572) as *Psophocarpus palustris*.

Specimens. Harris 306

Pterocarpus soyauxii Taub.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 517.

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Bai Hoku, Lidjombo, Ndakan. Phenology. Flower: January. Fruit: July, October.

Specimens. Harris 88; Fay 8630; Carroll 1063, 1497, 1545; Goldsmith 222.

Pueraria phaseoloides (Roxb.) Benth.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 573. 1958.

Habit. Herbaceous vine.

Habitat. Old fields and roadsides. Distribution. Introduced Local distribution. Bayanga. Phenology. Flower: April.

Specimens. Harris 4865.

Rhynchosia densiflora (Roth) DC. subsp. debilis (G.Don) Verdc.

Ref. Verdcourt, F.T.E.A. (Leguminosae): 724. 1971.

Habit. Herbaceous vine.

Habitat. Seasonally flooded sedge meadow. *Distribution*. W. Africa to Zambia, Malawi and Angola.

Specimens. Harris 1643.

Rhynchosia mannii Baker

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 554. 1958.

Habit, Liana.

Habitat. Forest and old fields. Distribution. Nigeria to Uganda and Angola.

Local distribution. Bayanga, Ndakan. Phenology. Flower: October.

Fruit: December. **Specimens.** *Harris* 1286, 3925.

Stylosanthes guianensis (Aubl.) Sw.

Ref. Verdcourt, F.T.E.A. (Leguminosae): 438. 1971.

Habit. Herbaceous vine.

Habitat. Planted in improved fallow trial. Distribution. Tropical America. Local distribution. Bayanga. Phenology. Flower: April.

Note. Introduced.

Specimens. Harris 4867.

Swartzia fistuloides Harms

Ref. Aubréville, Fl. Cam. 9: 300. 1970.

Habit. Tree 25 m high.

Habitat. Terra firma forest and seasonally flooded forest. Distribution.

Côte d'Ivoire to Congo (Kinshasa). Local distribution. Kongana,

Ndakan. *Phenology*. Fruit: September.

Specimens. *Harris* 1206, 4544; *Gentry* 62578.

Vigna multiflora Hook.f.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 569. 1958.

Habit. Vine.

Habitat. Seasonally flooded sedge meadow. *Distribution*. Sierra Leone to Congo (Kinshasa). *Local distribution*. Njeke. *Phenology*. Flower:

January, May. Fruit: January, May.

Specimens. Harris 121, 615.

Vigna unguiculata (L.) Walp. subsp. letouzeyi Pasquet

Ref. Pasquet, 1993: 159.

Habit. Herbaceous vine, 3 m high.

Habitat. Seasonally flooded sedge meadow and forest clearings by water.

Distribution. Cameroon, Gabon and Congo (Kinshasa). Local

distribution. Ndakan. Phenology. Flower: January. Fruit: January.

Specimens. Harris 1743, 1756.

Lepidobotryaceae

Lepidobotrys staudtii Engl.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 357. 1958.

Habit. Tree 10 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Kongana, Lidjombo, Ndakan. Phenology.

Flower: October. Fruit: June.

Specimens. Harris 1240, 4014, 5134; Fay 8599, 8661, 8837; Gentry 62784.

Linaceae

Hugonia micans Engl.

Ref. Badré, Fl. Cam. 14: 32. 1972.

Habit. Liana.

Habitat. Swamp. Distribution. Cameroon and Gabon. Local distribution. Dzanga. Phenology. Fruit: October.

Specimens. Harris 3617.

Hugonia planchonii Hook.f.

Ref. Badré, Fl. Cam. 14: 32. 1972.

Habit. Liana.

Habitat. Roadside vegetation. Distribution. Senegal to Congo (Kinshasa). Local distribution. Kongana. Phenology. Fruit: July.

Specimens. Harris 3476.

Hugonia spicata Oliv. var. glabrescens Keay

Ref. Badré, Fl. Cam. 14: 37. 1972.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Nigeria, Gabon and Congo (Kinshasa). Local distribution. Dzanga, Ndakan. Phenology. Flower: October. December.

Specimens. Harris 1702, 3518.

Loganiaceae

Anthocleista liebrechtsiana De Wild. & T.Durand

Ref. Leeuwenberg, Fl. Gabon 19: 8. 1972.

Habit. Tree 12 m high.

Habitat. Riparian forest on the Sangha River. *Distribution*. Ghana to Zambia and Angola. *Local distribution*. Ndakan. *Phenology*. Flower: April, October (buds).

Specimens. Harris 472, 1418.

Anthocleista schweinfurthii Gilg

Ref. Leeuwenberg, Fl. Gabon 19: 12. 1972.

Habit. Tree 20 m high.

Habitat. Seasonally flooded forest. Distribution. Nigeria to Sudan,

Tanzania and Angola. Local distribution. Ndakan. Phenology. Flower:

May. Fruit: May.

Specimens. Harris 801.

Anthocleista vogelii Planch.

Ref. Leeuwenberg, Fl. Gabon 19: 14. 1972.

Habit. Tree 10 m high.

Habitat. Old fields and roadside vegetation. *Distribution*. Sierra Leone to Tanzania and Angola. *Local distribution*. Bayanga. *Phenology*. Flower:

June. Fruit: June.

Specimens. Harris 3321; Fay 8573.

Mostuea brunonis Didr. var. brunonis

Ref. Leeuwenberg, Fl. Gabon 19: 28. 1972.

Habit. Shrub 1 m high.

Habitat. Terra firma forest. Local distribution. Kongana, Ndakan.

Phenology. Flower: February. Fruit: February.

Specimens. *Harris* 251, 4384, 5428.

Mostuea hirsuta (Benth. & Hook.f.) Baill. ex Baker

Ref. Leeuwenberg, Fl. Gabon 19: 31. 1972.

Habit. Shrub to 1 m high.

Habitat. Terra firma forest. Local distribution. Bai Hoku, Kongana,

Ndakan. *Phenology*. Flower: January(bud), February, December. Fruit: February, March, June.

Specimens. *Harris* 27, 272, 3320, 4386, 5438; *Fangonda* 265.

Strychnos aculeata Soler.

Ref. Leeuwenberg, Fl. Gabon 19: 55. 1972.

Habit. Large liana.

Habitat. Terra firma forest. Distribution. West and central Africa. Local distribution. Kongana, Ndakan. Phenology. Fruit: January.

Specimens, Harris 109, 1440.

Strychnos boonei De Wild.

Ref. Leeuwenberg, Fl. Gabon 19: 62. 1972.

Habit. Liana.

Habitat. Old fields, roadside vegetation and Gilbertiodendron dewevrei forest. Distribution. Nigeria to Uganda and Gabon. Local distribution.

Dzanga, Lidjombo, Kongana. *Phenology*. Flower: May. Fruit: October. Specimens. *Harris* 3371, 3550, 4038, 4720, 4972.

Strychnos camptoneura Gilg & Busse

Ref. Leeuwenberg, Fl. Gabon 19: 66. 1972.

Habit. Tall liana.

Habitat. Mixed species and Gilbertiodendron dewevrei forest. Distribution. Côte d'Ivoire to Gabon and Congo (Kinshasa). Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Fruit: July.

Specimens. Harris 1186, 4177; Carroll 1555.

Strychnos chromatoxylon Leeuwenb.

Ref. Leeuwenberg, Fl. Gabon 19: 69. 1972.

Habit. Large liana.

Habitat. Terra firma forest. Distribution. Cameroon (east) to Central African Republic and Congo (Brazzaville). Local distribution. Kongana. Specimens. Harris 5091.

Strychnos dolichothyrsa Gilg ex Onochie & Hepper

Ref. Leeuwenberg, Fl. Gabon 19: 77. 1972.

Habit. Large liana.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Cameroon to Central African Republic. Local distribution. Ndakan. Phenology. Fruit: September.

Specimens, Harris 1182.

Strychnos icaja Baill.

Ref. Leeuwenberg, Fl. Gabon 19: 86. 1972.

Habit. Liana.

Habitat. Gilbertiodendron dewevrei forest. Local distribution. Ndakan. Specimens. Harris 1451.

Strychnos sp. aff. longicaudata Gilg

Ref. Leeuwenberg, Fl. Gabon 19: 92. 1972.

Habit. Liana.

Habitat. Light gaps. Local distribution. Kongana. Phenology. Fruit: June, July.

Specimens. Harris 3433, 5098.

Strychnos longicaudata Gilg

Ref. Leeuwenberg, Fl. Gabon 19: 92. 1972.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Kongana.

Specimens. Harris 967, 4121, 4421.

Strychnos phaeotricha Gilg

Ref. Leeuwenberg, Fl. Gabon 19: 105. 1972.

Habit. Liana.

Habitat. Riparian forest. *Distribution*. Ghana to Congo (Kinshasa) and Gabon. *Local distribution*. Ndakan. *Phenology*. Flower: March. Specimens. *Harris* 2019.

Strychnos scheffleri Gilg

Ref. Leeuwenberg, Fl. Gabon 19: 109. 1972.

Habit. Liana.

Habitat. Riparian forest. Distribution. Cameroon to Kenya. Local distribution. Kongana, Ndakan. Phenology. Flower: January, November. Fruit: September, November.

Specimens. *Harris* 1061, 1571, 4350.

Strychnos talbotiae S.Moore

Ref. Leeuwenberg, Fl. Gabon 19: 115. 1972.

Habit. Tall liana.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Fruit: September. (immature), October.

Specimens. Harris 1184; Fay 8671.

Strychnos sp. A.

Habit. Tall liana.

Habitat. Terra firma forest. Local distribution. Kongana.

Specimens. Harris 4536.

Loranthaceae

Agelanthus brunneus (Engl.) Balle & N.Hallé

Ref. Polhill & Wiens, 1998: 156.

Habit. Semi-parasite.

Habitat. Terra firma forest. Distribution. Senegal to Uganda and Angola. Local distribution. Ndakan. Phenology. Flower: March.

Specimens. Harris 2025.

Agelanthus dichrous (Danser) Polhill & Wiens

Ref. Polhill & Wiens, 1998: 182.

Habit. Semi-parasite.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest.

Distribution. Cameroon to Central African Republic. Local distribution.

Ndakan. *Phenology*. Flower: March, September. Fruit: November. Specimens. *Harris* 311, 1126, 1624.

Globimetula braunii (Engl.) Danser

Ref. Polhill & Wiens, 1998: 211.

Habit. Semi-parasite.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Sudan and Kenya. Local distribution. Kongana, Ndakan. Phenology. Flower: February. Fruit: September, November.

Specimens. *Harris* 1127, 1625, 4615.

Helixanthera mannii (Oliv.) Danser

Ref. Polhill & Wiens, 1998: 81.

Habit. Semi-parasite.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Cameroon to Uganda and Angola. Local distribution. Ndakan. Phenology. Flower: November.

Specimens. Harris 1622.

Helixanthera subalata (De Wild.) Wiens & Polhill

Ref. Polhill & Wiens, 1998: 80.

Habit. Semi-parasite.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Congo (Brazzaville), Congo (Kinshasa) and Angola. Local distribution. Lidjombo, Ndakan. Phenology. Flower: January, March, November, December. Fruit: March, September, October.

Note. This is the westernmost record of this species. At this site it occurs only on *Gilbertiodendron dewevrei* trees.

Specimens. Harris 12, 43, 312, 1112, 1498, 1623, 1970, 1987, 2021, 4846.

Phragmanthera batangae (Engl.) Balle

Ref. Polhill & Wiens, 1998: 253.

Habit. Semi-parasite.

Habitat. Terra firma forest. Distribution. Cameroon to Gabon and Congo (Kinshasa). Local distribution. Kongana. Phenology. Flower: May. Specimens. Harris 4950.

Phragmanthera capitata (Spreng.) Balle

Ref. Polhill & Wiens, 1998: 252.

Habit. Semi-parasite.

Habitat. Terra firma forest. Distribution. Guinea to Congo (Kinshasa) and Angola. Local distribution. Dzanga. Phenology. Flower: October. Specimens. Harris 3567.

Phragmanthera polycrypta (Didr.) Balle

Ref. Polhill & Wiens, 1998: 264.

Habit. Semi-parasite.

Habitat. Riparian and secondary forest. Distribution. Cameroon to Uganda and Zambia. Local distribution. Kongana, Ndakan. Phenology. Flower: February, March. Fruit: November.

Specimens. Harris 1801, 2024, 5344.

Tapinanthus ogowensis (Engl.) Danser

Ref. Polhill & Wiens, 1998: 187.

Habit. Semi-parasite.

Habitat. Secondary mixed species terra firma and Gilbertiodendron dewevrei and riparian forest. Distribution. Cameroon to Gabon and Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: February, April, September. Fruit: October.

Specimens. *Harris* 469, 1106, 1497, 1896.

Malpighiaceae

Acridocarpus macrocalyx Engl.

Ref. Badré, Fl. Cam. 14: 6. 1972.

Habit. Liana.

Habitat. Riparian forest. Distribution. Guinea to Congo (Kinshasa). Local distribution. Kongana. Phenology. Flower: May.

Specimens. Harris 4923.

Acridocarpus smeathmannii (DC.) Guill. & Perr.

Ref. Badré, Fl. Cam. 14: 10. 1972.

Habit. Liana.

Habitat. Riparian forest. Distribution. Guinea to Tanzania. Local distribution. Ndakan. Phenology. Flower: February, April, November.Specimens. Harris 562, 1572, 1913.

Flabellaria paniculata Cav.

Ref. Badré, Fl. Cam. 14: 6. 1972.

Habit. Liana.

Habitat. Logging road. Distribution. Guinea to Sudan, Tanzania and Angola. Local distribution. Kongana. Phenology. Fruit: May. Specimens. Harris 4989.

Malvaceae

Hibiscus surattensis L.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 346. 1958.

Habit. Scrambler.

Habitat. Riparian forest. Distribution. Africa and Asia. Local distribution. Ndakan. Phenology. Flower: September.

Specimens. Harris 1165.

Hibiscus sp. A.

Habit. Herb.

Habitat. Seasonally flooded sedge meadow. *Local distribution.* Njeke. *Phenology.* Flower: November.

Specimens. Harris 1588.

Sida cordifolia L.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 339, 1958.

Habit. Herb.

Habitat. Cleared ground. Distribution. Tropics. Local distribution.

Kongana. Phenology. Flower: December.

Specimens, Harris 5309.

Sida rhombifolia L. vel sp. aff.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 339. 1958.

Habit. Herb 50 cm high.

Habitat. Roadside vegetation. Local distribution. Dzanga, Kongana.

Phenology. Flower: January, December.

Specimens. Harris 4280, 5370, 5371.

Urena lobata L.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 341. 1958.

Habit. Herb 1.5 m high.

Habitat. Seasonally flooded sedge meadow and cleared land. Distribution.

Tropics. Local distribution. Kongana, Ndakan. Phenology. Flower:

September, November.

Specimens. Harris 1080, 5337.

Medusandraceae

Soyauxia sp. A.

Habit. Tree 10 m high.

Habitat. Terra firma forest. Local distribution. Kongana. Phenology.

Flower: May. **Specimens.** *Harris* 4948.

Melastomataceae

Calvoa orientalis Taub.

Ref. Jacques-Félix, Fl. Cam. 24: 84. 1983.

Habit. Herb.

Habitat. Riparian forest. Distribution. Cameroon to Tanzania. Local distribution. Kongana. Phenology. Flower: February.

Specimens. Harris 4661.

Dinophora spenneroides Benth.

Ref. Jacques-Félix, Fl. Cam. 24: 116. 1983.

Habit. Herb 1.5 m high.

Habitat. Light gaps and roadside vegetation. Distribution. Sierra Leone to Congo (Kinshasa) and Angola. Local distribution. Kongana. Phenology.

Fruit: January, November.

Specimens. Harris 4306, 5340.

Dissotis decumbens (P.Beauv.) Triana

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 257. 1954.

Habit. Creeping herb.

Habitat. Sedge meadows and roadsides. Distribution. Nigeria to Tanzania.

Local distribution. Kongana, Salcapa, Njeke. Phenology. Flower:

February, May, September. Fruit: March.

Specimens. *Harris* 603, 1083, 4577, 4838.

Dissotis hensii Cogn.

Ref. Jacques-Félix, Fl. Cam. 24: 19. 1983.

Habit. Herb 1.2 m high.

Habitat. Swamp and roadside vegetation. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Dzanga, Kongana. Phenology. Flower:

January, February, December. Fruit: January, December.

Specimens. Harris 3902, 3903, 4279, 4375, 4635.

Guyonia ciliata Hook.f.

Ref. Jacques-Félix, Fl. Cam. 24: 8. 1983.

Habit. Creeping herb.

Habitat. In soft mud beside streams. *Distribution*. Sierra Leone to Tanzania. *Local distribution*. Dzanga, Kongana. *Phenology*. Flower: February, June. Fruit: February, June, December.

Note. Jacques-Félix (Fl. Cam. 24. 1983) suggests that *G. ciliata* and *Guyonia tenella* might be the same species. Material from Dzanga-Sangha when compared to the descriptions appears to be intermediate. No named material of *G. tenella* was seen at Kew. *G. tenella* is the older name.

Specimens. Harris 3898, 4630, 5070.

Melastomastrum segregatum (Benth.) A.Fern. & R.Fern.

Ref. Jacques-Félix, Fl. Cam. 24: 52. 1983.

Habit. Shrub 1 m high.

Habitat. Seasonally flooded sedge meadow. *Distribution*. Benin to Tanzania. *Local distribution*. Njeke at Ndakan. *Phenology*. Flower: April.

Specimens. Harris 427.

Memecylon laurentii De Wild.

Ref. Jacques-Félix, Fl. Cam. 24: 3. 1983.

Habit. Tree 3 m high.

Habitat. Terra firma, seasonally flooded, and riparian forest. Distribution.
Cameroon to Congo (Kinshasa). Local distribution. Bayanga, Kongana,
Ndakan. Phenology. Flower: February, May. Fruit: January, October.
Note. The material was named from the description by Jacques-Félix (Fl.
Cam. 24. 1983) in the absence of good reference material at Kew.
Specimens. Harris 1409, 3408, 4234, 5013.

Ochthocharis dicellandroides (Gilg) C.Hansen & Wickens

Ref. Jacques-Félix, Fl. Cam. 24: 118. 1983.

Habit. Shrub 1.5 m high.

Habitat. Riparian forest. Distribution. Angola, Sudan. Local distribution.Kongana, Ndakan. Phenology. Flower: February, June. Fruit: May.Specimens. Harris 577, 4663, 5081.

Tristemma demeusei De Wild.

Ref. Jacques-Félix, Fl. Cam. 24: 72. 1983.

Habit. Creeping herb.

Habitat. Streamside and roadside vegetation. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: February, June, August. Fruit: February, June, August.
 Specimens. Harris 939, 4407, 4477, 4576, 5080.

Tristemma mauritianum J.F.Gmel.

Ref. Jacques-Félix, Fl. Cam. 24: 64. 1983.

Habit. Herb.

Habitat. Swamp forest. Distribution. Senegal to Mauritius. Local distribution. Lidjombo, Salcapa, Ndakan. Phenology. Flower: March, April, May.

Specimens. Harris 476, 576, 4781, 4859.

Warneckea jasminoides (Gilg) Jacq.-Fél.

Ref. Jacques-Félix, Fl. Cam. 24: 164. 1983.

Habit. Tree 3 m high.

Habitat. Terra firma and seasonally flooded forest. Distribution. Guinea to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: March, November. Fruit: March, April, May (immature), October.

Specimens. *Harris* 313, 631, 1508, 4647, 5521; *Fay* 8675.

Meliaceae

Carapa procera DC.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 702. 1958.

Habit. Tree 15 m high.

Habitat. Terra firma forest. Distribution. Senegal to Tanzania and Angola. Local distribution. Bai Hoku, Lidjombo, Salcapa, Ndakan. Phenology. Flower: February, March.

Specimens. Harris 1953, 5472; Fay 8558, 8569; Fangonda 536; Carroll 1049, 1103; Gentry 62731.

Entandrophragma angolense (Welw.) C.DC.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 700. 1958.

Habit. Tree 40 m high.

Habitat. Terra firma forest. Distribution. Guinea to Uganda. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: January.

Note. Having examined the specimens at Kew, I agree with the decision by Liben & Dechamps (1966) to sepatate Entandrophragma congoense which was treated as a synonym of E. angolense by Staner (1941). Liben & Dechamps (1966), however, in their table distinguishing E.

congoense from *E. angolense*, describe the bole of *E. angolense* as being up to 12 m high. In this area the first branch of mature trees of that species is considerably higher. See Liben (1970) for more data on distribution of *E. congoense*.

Specimens. Harris 1398, 1762, 4110, 5568; Fay 8789; Carroll 1073.

Entandrophragma candollei Harms

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 700. 1958.

Habit. Tree 40 m high.

Habitat. Terra firma forest. Distribution. Guinea to Congo (Kinshasa). Local distribution. Bai Hoku, Kongana, Bayanga, Ndakan.

Specimens. *Harris* 1434, 3483, 4246, 4518, 4542, 5566; *Fay* 8493.

Entandrophragma cylindricum (Sprague) Sprague

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 701. 1958.

Habit. Tree 40 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Uganda. Local distribution. Bai Hoku, Ndakan. Phenology. Flower: February, March. Specimens. Harris 349, 940, 1880, 5554; Fay 8492, 8557, 8824; Carroll 1060.

Entandrophragma utile (Dawe & Sprague) Sprague

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 700. 1958.

Habit. Tree 40 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Uganda and Angola. Local distribution. Bai Hoku, Ndakan. Phenology. Flower: November. Fruit: February, October.

Specimens. Harris 1433, 1596; Carroll 1052.

Guarea cedrata (A.Chev.) Pellegr.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 706. 1958.

Habit. Tree to 25 m.

Habitat. Terra firma forest. Distribution. Sierra Leone to Uganda. Local distribution. Kongana, Ndakan.

Specimens. *Harris* 1280, 1336, 4075.

Guarea thompsonii Sprague & Hutch. vel sp. aff.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 707. 1958.

Habit. Tree to 25 m high.

Habitat. Terra firma forest. *Local distribution*. Dzanga, Kongana, Ndakan. *Phenology*. Fruit: October(immature), December.

Note. In the absence of ripe fruit or flowers I am unable to separate *G. thompsonii* from *Guarea laurentii*. Pellegrin (1939) referring to *G. laurentii* says: "cette espèce est très voisine de *G. thompsonii*.

Lorsqu'on aura plus de matériaux on sera sans doute amené à les confondre". I could not use the petiole characters in the key in Staner & Gilbert (F.C.B. 7, 1958) to separate the two species.

Specimens. Harris 1210, 1266, 1272, 1277, 1676, 3460, 3557, 3988, 4035, 4068; Gentry 62632.

Khaya grandifoliola C.DC.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 699. 1958.

Habit. Tree to 40 m high.

Habitat. Terra firma forest. Distribution. Guinea to Sudan and Uganda. Local distribution. Ndakan. Phenology. Flower: May. Fruit: October(immature).

Note. Styles & White (F.T.E.A. (Meliaceae). 1991.) suggest that *Khaya* anthotheca and *K. grandifoliola* may not be specifically distinct, in which case the accepted name would be *K. anthotheca*. In the absence, however, of a taxonomic treatment across the whole range of the genus I prefer to keep them separate.

Specimens, Harris 782, 1435.

Lovoa trichilioides Harms

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 702, 1958.

Habit. Tree to 35 m.

Habitat. Terra firma forest. Distribution. Sierra Leone to Uganda. Local distribution. Kongana, Ndakan.

Note. Lebrun & Stork (1992) list four species of *Lovoa* in Africa, although two of these names, *L. mildbraedii* and *L. angulata*, were treated as synonyms of *L. klaineana* by Pellegrin (1940) which Staner (1941) considered a synonym of *L. trichilioides*. Pellegrin (1940) and Staner (1941) describe *L. trichilioides* as being very variable with the extremes looking like different species; both authors, however, emphasize the continuity of the variation. I suspect that there is only one species.

Specimens. Harris 1263, 1691, 3623, 3981.

Trichilia monadelpha (Thonn.) J.J.de Wilde

Ref. de Wilde, 1968: 108. Synonym. Trichilia heudelotii Planch. ex Oliv.

Habit. Tree to 4 m.

Habitat. Riparian forest on the Sangha River. *Distribution*. Guinea Bissau to Congo (Kinshasa). *Local distribution*. Ndakan. *Phenology*. Flower: April, November. Fruit: September.

Specimens. *Harris* 466, 1038, 1539; *Thomas* 7225.

Trichilia prieuriana A.Juss. subsp. *vermoesenii* J.J.de Wilde *Ref.* de Wilde, 1968: 130.

Habit. Tree to 15 m.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Uganda and Gabon. Local distribution. Ndakan, Kongana. Phenology. Flower: February. Fruit: March (immature), May.

Note. Since this plant is named after Le Prieur the original spelling of the species epithet "*prieureana*" should be corrected to *prieuriana* (Greuter & al. 2000, Article 60.11).

Specimens. Harris 250, 314, 327, 706, 1255, 1403, 1760, 3459, 3984, 4010; Fay 8596; Carroll 1040; Gentry 62622, 62674, 62783.

Trichilia retusa Oliv.

Ref. de Wilde, 1968: 154.

Habit. Tree to 15 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Nigeria to Sudan and Congo (Kinshasa). Local distribution. Ndakan.

Note. This species is co-dominant with *Irvingia smithii* in riparian forest. It is interesting to note that although both of them are present in the basins of the Congo, Nile and Niger Rivers, neither of them appear to occur in Gabon.

Specimens. Thomas 7224.

Trichilia rubescens Oliv.

Ref. de Wilde, 1968: 161.

Habit. Tree to 8 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Tanzania, and Gabon.Local distribution. Dzanga to Bayanga, Ndakan, Kongana, Bai Hoku.Phenology. Fruit: June (immature). May. Flower: February, March, April.

Specimens. Harris 268, 707, 772, 2012, 3325, 3987, 4043, 5108; Fangonda 532; Carroll 1047; Gentry 62755.

Trichilia tessmannii Harms

Ref. de Wilde, 1968: 171. Synonym. Trichilia lanata A.Chev.

Habit. Tree to 15 m.

Habitat. Terra firma forest. Distribution. Guinea to Congo (Kinshasa). Local distribution. Bai Hoku, Ndakan, Kongana.

Specimens. Harris 1353, 4046, 5533.

Trichilia welwitschii C.DC.

Ref. de Wilde, 1968: 181.

Habit. Tree to 15 m.

Habitat. Terra firma forest. Distribution. Nigeria, Cameroon, Gabon, Angola. Local distribution. Kongana, Ndakan. Phenology. Fruit: May. Specimens. Harris 1665, 3986, 4100, 4128, 4979.

Turraea vogelii Hook.f. ex Benth.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 708. 1958.

Habit. Low liana.

Habitat. Light gaps and roadsides terra firma forest. Distribution. Ghana to Sudan and Uganda. Local distribution. Ndakan. Phenology. Flower:

May. Fruit: August.

Specimens. Harris 675, 869.

Turraeanthus africanus (Welw. ex C.DC.) Pellegr.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 707. 1958.

Habit. Tree 25 m.

Habitat. Terra firma forest. Distribution. Sierra Leone to Uganda and Angola. Local distribution. Kongana, Ndakan. Phenology. Flower: March. December. Fruit: June.

Specimens. Harris 1318, 1972, 1981, 4107, 5035.

Melianthaceae

Bersama palustris L.Touss.

Ref. Toussaint, F.C.B.R. 9: 394. 1960.

Habit. Tree 4 m high.

Habitat. Seasonally flooded forest. *Local distribution*. Ndakan. *Phenology*. Flower: January, February, May. Fruit: October.

Note. Verdcourt (1950) drew attention to some of the problems in the taxonomy of this genus. These include unusually high levels of reticulate variation and a plethora of names at specific and infraspecific levels. From the little material available at Kew it appears to me that this taxon clearly described by Toussaint (1959) is more distinct and less variable than the taxa treated by Verdcourt (F.T.E.A. (Melianthaceae). 1958). The strongly winged fruit and the habitat both appear to be consistent in the material treated as this species from Congo (Kinshasa) and Cameroon.

Specimens. Harris 756, 1427, 1919, 1922; Fangonda 268.

Menispermaceae

Cissampelos owariensis P.Beauv. ex DC.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 75. 1954.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: August. Specimens. Harris 1031.

Dioscoreophyllum cumminsii (Stapf) Diels

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 74. 1954.

Habit. Liana.

Habitat. Light gaps in terra firma forest. Distribution. Guinea to Congo (Kinshasa) and Sudan. Local distribution. Ndakan. Phenology. Flower: August. Fruit: February.

Specimens. *Harris* 254, 866, 992, 1033.

Jateorhiza macrantha (Hook.f.) Exell & Mendonça

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 74. 1954.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: May. Fruit: December.

Specimens, Harris 1712, 4968.

Kolobopetalum auriculatum Engl.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 72. 1954.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Ghana to Cameroon. Local distribution. Ndakan. Phenology. Flower: January, May. Specimens. Harris 83, 719.

Kolobopetalum chevalieri (Hutch. & Dalziel) Troupin

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 72. 1954.

Habit. Liana.

Habitat. Seasonally flooded forest, fields and roadsides. Distribution.

Liberia to Congo (Kinshasa). *Local distribution*. Lidjombo, Ndakan. *Phenology*. Flower: March, April, May.

Specimens. *Harris* 468, 700, 802, 4794.

Penianthus longifolius Miers

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 76. 1954.

Habit. Subshrub 1 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: February, December (buds). Fruit: April.

Specimens. *Harris* 527, 1703, 1904; *Fangonda* 287.

Stephania laetificata (Miers) Benth.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 75. 1954.

Habit. Liana.

Habitat. Light gaps, roadsides. *Distribution*. Nigeria to Congo (Kinshasa) and Angola *Local distribution*. Kongana, Ndakan. *Phenology*. Flower: January, May, August, September.

Specimens. Harris 909, 966, 1139, 4380, 4964.

Tiliacora chrysobotrya Welw. ex Ficalho vel sp. aff.

Ref. Exell & Mendonça, Consp. Fl. Ang. 1: 35. 1937.

Habit. Liana.

Habitat. Forest. Local distribution. Ndakan. Phenology. Flower: January.

Fruit: February, May.

Specimens. *Harris* 70, 139, 617, 1832, 4713.

Tiliacora laurentii De Wild. vel sp. aff.

Ref. Troupin, F.C.B. 2: 209. 1951.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: February, July (buds). Fruit: November.

Specimens. Harris 1602, 4092, 4520, 4521; Fay 8522; Gentry 62759.

Tiliacora sp. A.

Habit. Liana.

Habitat. Forest. *Local distribution*. Ndakan. *Phenology*. Flower: February. Specimens. *Harris* 1957.

Tiliacora sp. B.

Habit, Liana.

Habitat. Forest. Local distribution. Salcapa, Ndakan. Phenology. Flower: March. Fruit: 790.

Specimens. *Harris* 790, 4820.

Triclisia dictyophylla Diels

Ref. Keay, F.W.T.A. 2, 1958: 757.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Fruit: May, November.

Specimens. Harris 777, 1601, 3465, 4008, 4106, 5022.

Moraceae

Antiaris toxicaria Lesch. subsp. welwitschii (Engl.) C.C.Berg var. welwitschii

Ref. Berg & al., Fl. Cam. 28: 106. 1985. Synonym. Antiaris welwitschii Engl. Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Uganda and Angola. Local distribution. Lidjombo, Ndakan. Phenology. Flower: February, March.

Note. The species Antiaris toxicaria extends as far as Tonga in the Pacific. All material from Africa is now considered to be subsp. welwitschii, the variety found in this area is welwitschii which has a smooth upper surface to the leaf.

Specimens. Harris 1788, 4777; Fay 8731.

Dorstenia kameruniana Engl.

Ref. Berg & al., Fl. Cam. 28: 32. 1985.

Habit. Treelet to 1.5 m high.

Habitat. Terra firma forest. Distribution. Guinea to Tanzania. Local distribution. Ndakan, Kongana. Phenology. Flower: January, February, May.

Specimens. *Harris* 213, 696, 1868, 4341, 5410.

Ficus asperifolia Miq.

Ref. Berg & Wiebes, 1992: 68.

Habit. Semi-scandent shrub 3 m high.

Habitat. Riparian forest at edge of the Sangha River, occasionally in old fields. Distribution. Senegal to Sudan and Zambia. Local distribution.Ndakan. Phenology. Ripe figs: January, August, September, December.

Specimens. Harris 893, 1110, 1716, 1736.

Ficus barteri Sprague

Ref. Berg & Wiebes, 1992: 147.

Habit. Strangler.

Habitat. Seasonally flooded and *terra firma* forest. *Distribution*. Sierra Leone to Zambia. *Local distribution*. Ndakan, Kongana. *Phenology*. Ripe figs: May.

Specimens. Harris 1848, 5133.

Ficus calyptrata Vahl

Ref. Berg & Wiebes, 1992: 116. *Synonym. Ficus mallotoides* Mildbr. & Hutch. *Habit.* Strangler.

Habitat. Roadside vegetation. *Distribution*. Guinea to Congo (Kinshasa) and Gabon. *Local distribution*. Salcapa.

Specimens. Harris 4861.

Ficus conraui Warb.

Ref. Berg & Wiebes, 1992: 139.

Habit. Strangler 5 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Uganda, Tanzania and Angola. Local distribution. Kongana. Phenology. Ripe figs: February.

Specimens. Harris 4738.

Ficus cyathistipula Warb. subsp. cyathistipula

Ref. Berg & Wiebes, 1992: 143.

Habit. Shrub.

Habitat. Riparian forest on the Sangha River. *Distribution*. Côte d'Ivoire to Kenya and Angola. *Local distribution*. Ndakan. *Phenology*. Ripe figs: September.

Specimens. Harris 1151.

Ficus dryepondtiana De Wild.

Ref. Berg & Wiebes, 1992: 163.

Habit. Strangler 5 m high.

Habitat. Riparian forest on the Sangha River. *Distribution*. Cameroon to Congo (Kinshasa). *Local distribution*. Ndakan.

Note. Close to *F. sansibarica*, the juvenile leaves of which are very similar to *F. dryepondtiana* (Berg & Wiebes 1992).

Specimens. Harris 1297.

Ficus elasticoides De Wild.

Ref. Berg & Wiebes, 1992: 133.

Habit. Strangler.

Habitat. Terra firma forest. Distribution. Guinea-Bissau to Congo (Kinshasa). Local distribution. Kongana, Lidjombo.

Note. This is one of the few forest species of *Ficus* in Africa which is first a strangler and then after the death of the host, can become a self-supporting tree. Among the savanna species this is much more common (Berg & Wiebes 1992).

Specimens. Harris 4612, 4778.

Ficus kamerunensis Mildbr. & Burret

Ref. Berg & Wiebes, 1992: 131.

Habit. Strangler 15 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa). Local distribution. Kongana. Phenology. Ripe figs: February.

Note. Very close to *F. thonningii* and only consistently separated from it by the involute leaf when pressed (Berg & Wiebes 1992).

Specimens. *Harris* 4559.

Ficus lingua De Wild. & T.Durand subsp. lingua

Ref. Berg & Wiebes, 1992: 120.

Habit. Strangler.

Habitat. Gilbertiodendron dewevrei and mixed species terra firma forest. Distribution. Côte d'Ivoire to Uganda. Local distribution. Kongana. Specimens. Harris 4921, 5387.

Ficus louisii Lebrun & Boutique ex Boutique & J.Léonard

Ref. Berg & Wiebes, 1992: 74.

Habit. Tall tree.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa) and Gabon. Local distribution. Ndakan, Bai Hoku. Phenology. Ripe figs: May.

Note. Sometimes a strangler (Berg & Wiebes 1992). Specimens. *Harris* 714; *Fay* 8637.

Ficus lutea Vahl

Ref. Berg & Wiebes, 1992: 99.

Habit. Tree 5 m high.

Habitat. Riparian forest on the Sangha River. *Distribution.* Senegal to Ethiopia, South Africa and Madagascar. *Local distribution.* Ndakan. *Phenology.* Ripe figs: November.

Note. Can be difficult to separate from *F. saussureana* in some areas of central Africa (Berg & Wiebes 1992).

Specimens. Harris 1529.

Ficus mucuso Ficalho

Ref. Berg & Wiebes, 1992: 76.

Habit. Tree 25 m high.

Habitat. Old fields. *Distribution*. Guinea-Bissau to Ethiopia and Tanzania. *Local distribution*. Lidjombo, Ndakan.

Specimens. Harris 1215; Fay 8565.

Ficus natalensis Hochst. subsp. leprieurii (Miq.) C.C.Berg

Ref. Berg & Wiebes, 1992: 121.

Habit. Strangler.

Habitat. Terra firma and riparian forest. Distribution. Senegal to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Ripe figs: March, August.

Specimens. Harris 286, 892, 4943, 5031.

Ficus ovata Vahl

Ref. Berg & Wiebes, 1992: 165.

Habit. Strangler.

Habitat. Terra firma forest. Distribution. Senegal to Ethiopa, Mozambique and Malawi. Local distribution. Lidjombo, Ndakan, Dzanga.

Note. Elsewhere reported as a tree (Berg & Wiebes 1992).

Specimens. *Harris* 3628; *Fay* 8676, 8732.

Ficus polita Vahl subsp. polita

Ref. Berg & Wiebes, 1992: 158.

Habit. Tree or strangler to 8 m.

Habitat. Terra firma and riparian forest. Distribution. Senegal to Uganda and South Africa. Local distribution. Ndakan, Kongana. Phenology. Ripe figs: February, October.

Note. Can be confused with *F. umbellata* (Berg & Wiebes 1992). Specimens. *Harris* 1429, 1886, 5359.

Ficus recurvata De Wild.

Ref. Berg & Wiebes, 1992: 103.

Habit. Strangler 35 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Lidjombo, Ndakan.

Specimens. Harris 4792; Fay 8428, 8633.

Ficus sansibarica Warb. subsp. *macrosperma* (Mildbr. & Burret) C.C.Berg

Ref. Berg & Wiebes, 1992: 162. *Synonym. Ficus macrosperma* Mildbr. & Burret *Habit.* Strangler to 25 m.

Habitat. Terra firma forest. Distribution. Guinea-Bissau to Uganda. Local distribution. Dzanga, Lidjombo. Phenology. Ripe figs: October.Specimens. Harris 3601, 4791.

Ficus subcostata De Wild.

Ref. Berg & Wiebes, 1992: 147.

Habit. Tree 3 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Unripe figs: November.

Specimens. Harris 1530.

Ficus sur Forssk.

Ref. Berg & Wiebes, 1992: 77.

Habit. Tree to 20 m.

Habitat. Distribution. Senegal to Ethiopia and South Africa. Local distribution. Ndakan. Phenology. Ripe figs: April.

Specimens. Harris 492, 532; Fay 8334.

Ficus thonningii Blume

Ref. Berg & Wiebes, 1992: 127.

Habit. Strangler to 30 m.

Habitat. Terra firma forest. Distribution. Tropical Africa. Local distribution. Lidjombo.

Note. This species has a complex pattern of variation over its wide range in tropical Africa (Berg & Wiebes 1992).

Specimens. Fay 8609.

Ficus wildemaniana De Wild. & T.Durand

Ref. Berg & Wiebes, 1992: 150.

Habit. Strangler fig.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon to Uganda. Local distribution. Ndakan, Lidjombo. Phenology. Ripe figs: March.

Specimens. Harris 1982; Fay 8559.

Milicia excelsa (Welw.) C.C.Berg

Ref. Berg & al., Fl. Cam. 28: 9. 1985. Synonym. Chlorophora excelsa Welw.

Habit. Tree to 30 m high.

Habitat. Terra firma forest. Distribution. Guinea-Bissau to Mozambique.

Local distribution. Lidjombo, Ndakan. Phenology. Flower: May.

Specimens. *Harris* 681; *Fay* 8462, 8677, 8713.

Musanga cecropioides R.Br. ex Tedlie

Ref. Berg & al., Fl. Cam. 28: 272. 1985.

Habit. Tree 20 m high.

Habitat. Cleared ground, rare in undisturbed forest. *Distribution*. Guinea to Congo (Kinshasa) and Angola. *Local distribution*. Lidjombo, Bai Hoku. *Phenology*. Flower: October.

Specimens. Fay 8594; Carroll 1505.

Myrianthus arboreus P.Beauv.

Ref. Berg & al., Fl. Cam. 28: 262. 1985.

Habit. Tree to 20 m.

Habitat. Terra firma forest. Distribution. Guinea to Angola, Sudan and Tanzania. Local distribution. Lidjombo.

Specimens. Fay 8611.

Streblus usambarensis (Engl.) C.C.Berg

Ref. Berg 1988: 357. Synonyms. Sloetiopsis usambarensis Engl., Neosloetiopsis kamerunensis Engl.

Habit. Tree to 5 m.

Habitat. Gilbertiodendron dewevrei and mixed species terra firma forest. Distribution. Guinea to Mozambique. Local distribution. Kongana, Bai Hoku. Phenology. Fruit: January, February, June.

Note. Common around Kongana and apparently absent south of Lidjombo. Specimens. *Harris* 3415, 4329, 4497, 5036; *Carroll* 40.

Treculia africana Decne.

Ref. Berg & al., Fl. Cam. 28: 16. 1985.

Habit. Tree 25 m.

Habitat. Riparian and terra firma forest. Distribution. Senegal to Mozambique. Local distribution. Ndakan, Phenology. Flower: August. Fruit (immature): September.

Specimens. Harris 642, 885, 1152, 1299.

Trilepisium madagascariense DC.

Ref. Berg & al., Fl. Cam. 28: 103. 1985. Synonym. Bosqueia angolensis Ficalho Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Guinea to Madagascar. Local distribution. Salcapa.

Specimens. Harris 4800.

Myristicaceae

Coelocaryon preussii Warb.

Ref. Fouilloy, Fl. Cam. 18: 98. 1974.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Kongana, Lidjombo.

Specimens. Harris 3467; Fay 8690.

Pycnanthus angolensis (Welw.) Warb.

Ref. Fouilloy, Fl. Cam. 18: 91. 1974.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Guinea to Congo (Kinshasa) and Angola. Local distribution. Bai Hoku, Bayanga, Lidjombo, Ndakan.

Phenology. Flower: March, July. Fruit: January, February.

Specimens. Harris 332, 1869, 3351; Fay 8476; Carroll 1537.

Pycnanthus marchalianus Ghesq.

Ref. Fouilloy, Fl. Cam. 18: 92. 1974.

Habit. Tree 25 m high.

Habitat. Riparian forest. Distribution. Cameroon to Congo (Kinshasa).

Local distribution. Ndakan. Phenology. Fruit: August.

Specimens. Harris 930, 3605.

Staudtia kamerunensis Warb. var. gabonensis Fouilloy

Ref. Fouilloy, Fl. Cam. 18: 104. 1974.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Bai Hoku, Lidjombo, Ndakan. Phenology. Fruit: January (immature), March, April (immature).

Note. I follow the taxonomy proposed by Fouilloy (Fl. Cam. 18. 1974) with some reservations. The difference in fruit size between the two varieties of *S. kamerunensis* appears clear and the lack of intermediate specimens suggests that a closer examination of these taxa in the field might reveal more differences. Keay (1989) describes *S. stipitata*, which Fouilloy (Fl. Cam. 18. 1974) treats as a synonym of *S. kamerunensis*, as having practically no buttresses, but almost all the trees in this area have obvious buttresses.

Specimens. *Harris* 318, 357, 794; *Fay* 8332, 8601; *Carroll* 1532; *Remis* 5-92.

Myrtaceae

Syzygium staudtii (Engl.) Mildbr. vel sp. aff.

Ref. Amshoff, Fl. Gabon, 11: 8. 1966.

Habit. Tree to 30 m.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Dzanga, Kongana, Ndakan. Phenology. Flower: February, December. Fruit: November(immature).

Note. Although this species usually occurs in sub-montane forest, it has been reported at low altitudes at other localities by Amshoff (Fl. Gabon, 11. 1966).

Specimens. Harris 1592, 3880, 4500, 4574.

Ochnaceae

Note. I have used the genera *Rhabdophyllum* and *Campylospermum* here since they appear in the publication that was most useful for identifying

specimens (Farron 1985). I make no attempt to take sides on the debate about whether these genera should be recognised as separate from *Ouratea*.

Campylospermum densiflora De Wild. & T.Durand

Ref. Farron F.C.R.B. (Ochnaceae): 46. 1967.

Habit. Tree 12 m high.

Habitat. Streamside. Distribution. Cameroon to Gabon and Congo (Kinshasa). Local distribution. Kongana, Njeke. Phenology. Flower:

May, October. Fruit: September, November.

Specimens. *Harris* 1194, 1489, 1600, 4901.

Campylospermum elongatum (Oliv.) Tiegh.

Ref. Farron F.C.R.B. (Ochnaceae): 35. 1967.

Habit. Tree 2 m high.

Habitat. Seasonally flooded, riparian and terra firma forest. Distribution.
Nigeria to Congo (Kinshasa). Local distribution. Dzanga, Bai Hoku,
Kongana, Ndakan Phenology. Flower: January, May, June, August,
November, December (bud). Fruit: February, April, August, October.
Specimens. Harris 143, 633, 991, 1556, 3533, 3906, 4449, 4616, 5087; Carroll 1553.

Campylospermum oliverianum (Gilg) Farron

Ref. Farron 1965: 400.

Habit. Shrub.

Habitat. Gilbertiodendron dewevrei and mixed species terra firma forest.Distribution. Côte d'Ivoire to E. Cameroon. Local distribution.Kongana, Ndakan. Phenology. Flower: February, Fruit: April, September.

Note. Farron (1965) keeps *C. oliverianum* separate from *C. sulcatum* although Keay (1953) considers them conspecific and treats them as *Ouratea sulcata*. It appears to me that they should be kept separate. This collection represents a range extension from that given by Farron (1985) and is the easternmost record.

Specimens, Harris 525, 1181, 4571.

Campylospermum strictum (Tiegh.) Farron

Ref. Farron F.C.R.B. (Ochnaceae): 49. 1967.

Habit. Tree 5 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Kongana, Lidjombo. Phenology. Flower: March. Specimens. Harris 3990, 4813.

Campylospermum vogelii (Hook.f.) Farron var. *costatum* (Tiegh.) Farron *Ref.* Farron, 1965: 403.

Habit. Tree 3 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Tanzania. Local distribution. Bayanga, Kongana. Phenology. Fruit: May.

Specimens. *Harris* 4546, 4644, 4886.

Campylospermum sp. A.

Habit. Shrub.

Habitat. Gilbertiodendron dewevrei and mixed species terra firma forest.

Distribution. Cameroon, Gabon. Local distribution. Bai Hoku,

Kongana, Ndakan. *Phenology*. Flower: January, February, April. Fruit: May.

Specimens. Harris 1724, 4317, 4462, 4487, 5005, 4627B; Fangonda 526; Carroll 1032.

Campylospermum sp. B.

Habit. Tree 5 m high.

Habitat. Riparian and Gilbertiodendron dewevrei forest. Local distribution.

Kongana, Ndakan, Njeke Phenology. Flower: January, April,

September. Fruit: January, February.

Specimens. *Harris* 126, 1180, 4618, 4703; *Fangonda* 525.

Campylospermum sp. C.

Habit. Tree 2 m high.

Habitat. Terra firma forest. Local distribution. Kongana Phenology.

Flower: June. Fruit: June.

Specimens. Harris 5037, 5117.

Lophira alata Banks ex P.Gaertn.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 231. 1954.

Habit. Tree 35 m high.

Habitat. Terra firma and seasonally flooded forest. Distribution. Sierra Leone to Gabon and Congo (Kinshasa). Local distribution. Bai Hoku, Lidjombo, Ndakan. Phenology. Flower: January. Fruit: January, February. December.

Specimens. Harris 1711, 1720, 1791; Fay 8541, 8845; Fangonda 275; Carroll 1078.

Ochna sp. aff. afzelii R.Br. ex Oliv.

Ref. Bamps, F.C.R.B. (Ochnaceae): 13. 1967.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Local distribution. Kongana, Dzanga.

Phenology. Fruit: April.

Specimens. Harris 4416; Fangonda 529.

Ochna calodendron Gilg & Mildbr.

Ref. Mildbraed, 1921: 60.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Cameroon and Central African Republic. Local distribution. Dzanga.

Note. There is a good photograph of the distinctive bark of this species in Vivien & Faure (1985).

Specimens. Harris 3631.

Rhabdophyllum affine (Hook.f.) Tiegh.

Ref. Farron, 1985: 67.

Habit. Tree 3 m high.

Habitat. Seasonally flooded and riparian forest. *Distribution*. Sierra Leone to Cameroon and Gabon. *Local distribution*. Ndakan. *Phenology*.

Flower: April. Fruit: February, May.

Note. This record represents an eastern range extension of this species from that given by Farron (1985).

Specimens. Harris 258, 478, 636.

Rhabdophyllum arnoldianum (De Wild. & T.Durand) Tiegh.

Ref. Farron, 1985: 66.

Habit. Tree 2 m high.

Habitat. Seasonally flooded sedge meadow. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Njeke. Phenology. Fruit: June, September.

Specimens. Harris 827, 1084.

Rhabdophyllum welwitschii Tiegh. vel sp. aff.

Ref. Farron, 1965: 393.

Habit. Tree 2 m high.

Habitat. Old fields. Local distribution. Bayanga. Phenology. Fruit: April, June

Specimens. Harris 3304.

Sauvagesia erecta L.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 232. 1954.

Habit. Herb.

Habitat. Seasonally flooded sedge meadow. Distribution. Tropical America, Africa and Madagascar. Local distribution. Njeke. Phenology. Flower: May.

Specimens. Harris 602.

Olacaceae

Aptandra zenkeri Engl.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 649. 1958.

Habit. Tree 4 m high.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest.

Distribution. Côte d'Ivoire to Angola, Congo (Kinshasa) and Gabon.

Local distribution. Dzanga, Bai Hoku, Kongana, Ndakan. Phenology.

Flower: November. Fruit: April, May, August, December.

Specimens. Harris 970, 1584, 3895, 4916; Fangonda 524; Carroll 1564.

Heisteria parvifolia Sm.

Ref. Villiers, Fl. Cam. 15: 126. 1973.

Habit. Tree 5 m high.

Habitat. Terra firma and seasonally flooded forest. Distribution. Senegal to Congo (Kinshasa), Gabon and Uganda. Local distribution. Kongana, Bayanga, Lidjombo, Ndakan. Phenology. Flower: May (bud). Fruit: June, July, October.

Specimens. *Harris* 1378, 3345, 3361, 3462, 3470; *Gentry* 62638.

Olax gambecola Baill.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 647. 1958.

Habit. Shrub 1 m high.

Habitat. Seasonally flooded forest and Gilbertiodendron dewevrei forest. Distribution. Guinea to Congo (Kinshasa), Uganda and Zambia. Local distribution. Kongana, Ndakan. Phenology. Flower: May, July. Fruit: August.

Specimens. Harris 634, 1003, 3500.

Olax subscorpioidea Oliv.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 647. 1958.

Habit. Tree 4 m high.

Habitat. Roadsides, old fields, and riparian forest on the Sangha River.

Distribution. Senegal to Congo (Kinshasa) and Gabon. Local distribution. Kongana, Bayanga, Lidjombo, Ndakan. Phenology.

Flower: April, May, June, November. Fruit: April.

Specimens. *Harris* 517, 1275, 1506, 3318, 4933; *Fay* 8589.

Ongokea gore (Hua) Pierre

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 649. 1958.

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa) and Angola. Local distribution. Ndakan, Bai Hoku. Phenology. Flower: February, August. Fruit: April, May, June.

Specimens. Harris 202, 759, 830, 971, 3397, 5530; Carroll 1093.

Strombosia grandifolia Hook.f. ex Benth.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 648. 1958.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Benin to Gabon and Congo (Kinshasa). Local distribution. Kongana, Lidjombo, Ndakan.

Phenology. Fruit: June.

Specimens. *Harris* 1230, 3367, 4098; *Fay* 8742; *Gentry* 62689.

Strombosia nigropunctata Louis & J.Léonard

Ref. Louis & Léonard, F.C.B. 1: 269. 1948.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Congo (Kinshasa). Local distribution. Dzanga, Bai Hoku, Kongana, Ndakan. Phenology. Flower: March. Fruit: May (immature).

Note. This appears to be the first record outside Congo (Kinshasa). The only specimen available for comparison at Kew was the isotype. The original description (Léonard 1947) fits the material well.

Specimens. Harris 337, 363, 1685, 3624, 4152, 4163, 4330, 5548; Carroll 1097; Gentry 62761A.

Strombosia pustulata Oliv. var. pustulata

Ref. Villiers, Fl. Cam. 15: 137. 1973.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution Nigeria to Congo (Kinshasa). Local distribution. Bai Hoku, Ndakan, Lidjombo. Phenology. Flower: February. Fruit: June, November.

Specimens. *Harris* 3368; *Fay* 8783, 8854; *Carroll* 1134; *Goldsmith* 215.

Strombosiopsis tetrandra Engl.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 649. 1958.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Uganda. Local distribution. Kongana, Lidjombo, Ndakan. Phenology. Fruit: July.
 Specimens. Harris 1312, 3396, 4140, 4198, 4535, 5531; Fay 8498, 8743; Gentry 62757, 62786.

Oleaceae

Jasminum pauciflorum Benth.

Ref. Hutchinson & Dalziel, F.W.T.A. 2: 50. 1963.

Habit. Herbaceous vine.

Habitat. Riparian forest and roadside vegetation. *Distribution*. Guinea Bissau to Kenya. *Local distribution*. Kongana, Salcapa, Ndakan.

Phenology. Flower: March, May, August.

Specimens. *Harris* 949, 4834, 4911.

Onagraceae

Ludwigia decurrens Walters vel sp. aff.

Ref. Aymonin, Fl. Cam. 5: 109. 1966.

Habit. Herb.

Habitat. Beside stream. Distribution. Tropical America and introduced to Africa. Local distribution. Ndakan. Phenology. Flower: September.

Fruit: September. Specimens. *Harris* 1196.

Ludwigia erecta (L.) Hara

Ref. Aymonin, Fl. Cam. 5: 110. 1966.

Habit. Herb.

Habitat. Swamps and streams. *Distribution*. Introduced. *Local distribution*. Dzanga, Kongana. *Phenology*. Flower: February, December. Fruit: February, December.

Specimens. *Harris* 3914, 4730.

Ludwigia octovalvis (Jacq.) P.H.Raven

Ref. Aymonin, Fl. Cam. 5: 110. 1966.

Habit. Floating herb.

Habitat. Permanent swamp. Distribution. Tropical Africa to Madagascar.

Local distribution. Dzanga. Phenology. Flower: December. Fruit:

December.

Specimens. Harris 3913.

Opiliaceae

Rhopalopilia altescandens Mildbr. ex Sleumer

Ref. Hiepko, 1985: 278.

Habit. Liana 10 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Kongana.

Note. Villiers (Fl. Cam. 15: 1973) describes this species as only occurring in Cameroon, however Hiepko (1985) included specimens from Congo (Kinshasa) described as Rhopalopilia bequaertii and treated as such by Louis and Léonard (F.C.B. 1, 1948). This appears to be a rarely collected species.

Specimens. Harris 3453, 4117.

Urobotrya sparsiflora (Engl.) Hiepko subsp. sparsiflora

Ref. Hiepko, 1985: 148.

Habit. Shrub to 3 m high.

Habitat. Riparian forest. Distribution. Central African Republic, Congo (Brazzaville), Congo (Kinshasa). Local distribution. Bayanga, Ndakan, Njeke. Phenology. Flower: January, November. Fruit: February, March, May, November.

Specimens. Harris 638, 1603, 1894, 2033, 4254; Fangonda 285.

Pandaceae

Microdesmis pierlotiana J.Léonard vel sp. aff.

Ref. Villiers, Fl. Cam. 19: 50, 1975.

Habit. Shrub.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: February, December.

Note. I identified specimens with male flowers as this species using the key of Villiers (Fl. Cam. 19. 1975) however the fruiting specimens from this area with similar leaves have fruits that have a pointed apex and are less than 1 cm in diameter. This character combination conflicts with his description.

Specimens. Harris 1, 252, 1906, 3468, 5429.

Microdesmis puberula Hook.f. ex Planch.

Ref. Villiers, Fl. Cam. 19: 51. 1975.

Habit. Shrub.

Habitat. Terra firma forest. Distribution. Nigeria to Uganda. Local distribution. Ndakan. Phenology. Flower: January.

Specimens. Harris 180.

Panda oleosa Pierre

Ref. Villiers, Fl. Cam. 19: 43. 1975.

Habit. Tree 20 m high.

Habitat. Terra firma and seasonally flooded forest. Distribution. Liberia to Congo (Kinshasa). Local distribution. Bai Hoku, Ndakan. Phenology.

Flower: February.

Specimens. Harris 796; Fay 8781; Carroll 1005, 1020, 1026, 1104.

Passifloraceae

Adenia gracilis Harms subsp. gracilis

Ref. de Wilde, 1971: 257.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Nigeria to Uganda and Angola.Local distribution. Ndakan. Phenology. Flower: October.Specimens. Harris 1417.

Adenia letouzeyi W.J.de Wilde vel sp. aff.

Ref. de Wilde, 1971: 148.

Habit. Liana.

Habitat. Riparian forest on the Sangha River. Distribution. Cameroon. Local distribution. Ndakan. Phenology. Flower: March, April.

Specimens. Harris 297, 461; Thomas 7230.

Adenia poggei (Engl.) Engl.

Ref. de Wilde, 1971: 265.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: May. Fruit: September.

Specimens. *Harris* 40, 3941, 4975.

Adenia rumicifolia Engl. & Harms vel sp. aff.

Ref. de Wilde, 1971: 154.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Tropical africa. Local distribution. Lidjombo. Phenology. Flower: March.

Specimens. Harris 4845.

Adenia tricostata De Wild.

Ref. de Wilde, 1971: 273.

Habit. Liana 2 m high.

Habitat. Roadside vegetation. Distribution. Cameroon to Congo (Kinshasa) and Uganda. Local distribution. Kongana. Phenology. Flower:

December.

Specimens. Harris 4067.

Adenia sp. A.

Habit. Liana.

Habitat. Terra firma forest. Local distribution. Kongana.

Specimens. Harris 4472; Fay 8532.

Barteria dewevrei De Wild. & T.Durand

Ref. De Wildeman & Durand, 1899: 8.

Habit. Tree 10 m high.

Habitat. Terra firma forest. Distribution. Congo (Kinshasa) to Cameroon.

Local distribution. Kongana, Lidjombo, Ndakan. Phenology. Flower:

January. Fruit: October.

Specimens. *Harris* 1453, 5041; *Fay* 8406, 8407, 8570.

Phytolaccaceae

Hilleria latifolia (Lam.) H.Walter

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 143, 1954.

Habit. Herb.

Habitat. Roadside vegetation. Distribution. Introduced from South America. Local distribution. Dzanga. Phenology. Fruit: October. Specimens. Harris 3540.

Piperaceae

Piper guineense Schumach. & Thonn.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 84, 1954.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Guinea Bissau to Tanzania and Angola. Local distribution. Kongana, Ndakan. Phenology. Fruit: February. December Flower. May.

Specimens. Harris 544, 619, 4062, 4708; Fay 8387.

Piper umbellatum L.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 84. 1954.

Habit. Shrub 2 m high.

Habitat. Terra firma forest. Distribution. Guinea to Kenya. Local distribution. Ndakan. Phenology. Flower: April, December.Specimens. Harris 1650.

Polygalaceae

Atroxima afzeliana (Oliv. ex Chodat) Stapf

Ref. Breteler & Smissaert-Houwing, 1977: 15.

Habit, Liana.

Habitat. Riparian forest. *Distribution*. Guinea Bissau to Congo (Kinshasa) and Angola. *Local distribution*. Dzanga. *Phenology*. Flower: October. Specimens. *Harris* 3529, 3565.

Carpolobia alba G.Don

Ref. Breteler & Smissaert-Houwing, 1977: 24.

Habit. Tree 2 m high.

Habitat.Terra firma forest. Distribution. Guinea Bissau to Liberia and Nigeria to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: February. Fruit: January (immature), May.
 Specimens. Harris 1667, 1768, 1854, 4959.

Polygonaceae

Afrobrunnichia erecta (Asch.) Hutch. & Dalziel

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 139. 1954.

Habit. Liana.

Habitat. Riparian forest. Distribution. Sierra Leone to Gabon & Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: January, February. Fruit: January, February.

Specimens. Harris 199, 256.

Portulacaceae

Talinum triangulare (Jacq.) Willd.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 136. 1954.

Habit. Herb.

Habitat. Villages and fields. *Distribution*. Tropical America, introduced and naturalized in Africa. *Local distribution*. Ndakan. *Phenology*.

Flower: November. Fruit: November.

Specimens. Harris 305.

Rhamnaceae

Gouania longipetala Hemsl.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 670. 1958.

Habit. Vine to 10 m high.

Habitat. Light gap and roadside vegetation. *Distribution*. Guinea to Gabon, Angola and Congo (Kinshasa). *Local distribution*. Lidjombo, Ndakan.

Phenology. Flower: January, October.

Specimens. Harris 1406, 4257.

Lasiodiscus mannii Hook.f.

Ref. Figueiredo, 1995: 505.

Habit. Tree 3 m high.

Habitat. Terra firma forest. Distribution. Guinea to Côte d'Ivoire, and Cameroon to Congo (Kinshasa). Local distribution. Dzanga, Kongana. Phenology. Fruit: October.

Specimens. *Harris* 3606, 4543.

Lasiodiscus palustris Figueiredo

Ref. Figueiredo, 1995: 510.

Habit. Tree 3 m high.

Habitat. By stream in forest clearing. Distribution. Gabon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: February. Specimens. Harris 1871.

Maesopsis eminii Engl.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 669. 1958.

Habit. Tree.

Habitat. Terra firma forest. Distribution. Liberia to Tanzania, Sudan and Angola. Local distribution. Ndakan.

Specimens. Gentry 62630.

Rhizophoraceae

Anopyxis klaineana (Pierre) Engl.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 286. 1954.

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Gabon and Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: February. Fruit: January, May, July.

Specimens. *Harris* 72, 715, 1821, 3471; *Fay* 8515.

Cassipourea congoensis R.Br. ex DC.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 283. 1954.

Habit. Tree 4 m high.

Habitat. Riparian and terra firma forest. Distribution. Senegal to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: January, April, May.

Specimens. Harris 515, 645; Fangonda 266; Gentry 62653.

Cassipourea sp. A.

Habit. Tree 20 m high.

Habitat. Old fields. *Local distribution*. Lidjombo. *Phenology*. Fruit: June. **Specimens**. *Harris* 3362.

Rosaceae

Rubus pinnatus Willd. var. afrotropicus Engl.

Ref. Letouzey, Fl. Cam. 20: 18. 1978.

Habit. Shrub.

Habitat. Streamside. Distribution. Guinea to Angola and Zimbabwe. Local distribution. Dzanga. Phenology. Flower: March.

Note. This taxon has been recorded mostly from montane and submontane areas in central Africa, however Letouzey (Fl. Cam. 20. 1978) reports it at lower altitudes from Yokadouma (Cameroon), Makokou (Gabon) and Bambari (Central African Republic). Letouzey (Fl. Cam. 20. 1978) questions the validity of the varieties *afrotropicus* and *ledermannii* which he refers to as "formes glabres pro parte" and "formes tomenteuses pro parte".

Specimens. Fay s.n.

Rubiaceae

Aidia micrantha (K.Schum.) F.White var. *acarophyta* (De Wild.) Petit *Ref.* Petit, 1962: 180.

Habit. Tree to 8 m high.

Habitat. Seasonally flooded forest. Distribution. Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: May (buds). Fruit: January, February, November.

Note. This variety appears distinct from var. *micrantha* at this study site. If it were similarly distinct across the whole of its range I would consider them to be separate species.

Specimens. Harris 196, 663, 1700, 1792.

Aidia micrantha (K.Schum.) F.White var. micrantha

Ref. Petit, 1962: 174.

Habit. Shrub to 2 m high.

Habitat. Terra firma forest, light gaps and roadsides. Distribution.

Cameroon to Congo (Kinshasa). Local distribution. Lidjombo,

Kongana, Ndakan. *Phenology*. Flower: February, March (buds). Fruit: January, February, March, July, September, December.

Specimens. Harris 47, 78, 149, 220, 226, 1090, 1213, 3388, 3968, 4554, 4680, 4774, 5437; Fay 8605.

Aoranthe cladantha (K.Schum.) Somers

Ref. Somers, 1988: 71.

Habit. Tree to 8 m.

Habitat. Roadsides in *terra firma* forest. *Distribution*. Nigeria to Congo (Kinshasa) and Gabon. *Local distribution*. Lidjombo, Kongana. Specimens. *Harris* 4411; *Fay* 8748.

Aoranthe nalaensis (De Wild.) Somers

Ref. Somers, 1988: 72.

Habit. Tree to 8 m high.

Habitat. Roadside vegetation and light gaps. Distribution. Cameroon and Gabon to Congo (Kinshasa) and Angola. Local distribution. Kongana, Dzanga. Phenology. Flower: January. Fruit: March, June, October.

Note. The description in the key by Hallé (Fl. Gabon 17. 1970) under *Porterandia cladantha*, "fruit subglobuleux grossièrement côtelé" does not apply to the fruit I have collected which are ellipsoid when ripe (see *Harris* 3525). The choice of "ramiflory frequent" or "no ramiflory" in the first couplet of the species key in Somers (1988) confused me. The fruit and occasionally the flowers of *A. nalaenis* occur below the leaves on branched inflorescences. In addition *Harris* 4214 has calyx teeth slightly less than 2 mm long in open flowers (measurement made on dried specimen).

Specimens. *Ĥarris* 3525, 4214, 4423, 4671, 5095, 5486.

Argocoffeopsis eketensis (Wernh.) Robbr.

Ref. Robbrecht, 1986: 157. Synonym. Argocoffeopsis jasminoides (Welw. ex Hiern) Robbr. Habit. Scandent shrub.

Habitat. Light gaps and roadsides, terra firma forest. Distribution. Guinea to Zambia, Gabon and Congo (Kinshasa). Local distribution. Bayanga to Lidjombo, Ndakan. Phenology. Flower: February, March.
 Specimens. Harris 264, 4753.

Argocoffeopsis rupestris (Hiern) Robbr. subsp. thonneri (Lebrun) Robbr.

Ref. Robbrecht, 1981: 369. Synonym. Coffea thonneri Lebrun

Habit. Spindly shrub, 1.5 m high.

Habitat. Old fields. Distribution. Central African Republic to Congo (Kinshasa) and Sudan. Local distribution. Bayanga. Phenology. Flower: March

Specimens. Harris 4746, 4760.

Atractogyne gabonii Pierre

Ref. Hallé, Fl. Gabon 17: 181. 1970.

Habit. Vine.

Habitat. Light gaps and roadside vegetation. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Lidjombo, Kongana, Dzanga, Ndakan. Phenology. Fruit: June, August, October.

Specimens. *Harris* 995, 3356, 3522, 5128.

Belonophora coriacea Hoyle

Ref. Keay, F.W.T.A. 2: 158. 1963.

Habit. Tree 5 m high.

Habitat. Gilbertiodendron dewevrei and mixed species terra firma forest.

Distribution. Nigeria to Congo (Kinshasa) and Gabon. *Local distribution*. Ndakan, Bai Hoku, Kongana, Salcapa. *Phenology*. Flower: January, February, November, December. Fruit: March.

Specimens. Harris 156, 1679, 3343, 4188, 4328, 4442, 4817; Carroll 1551, 1589.

Bertiera adamsii (Hepper) N.Hallé

Ref. Hallé, Fl. Gabon 17: 34. 1970. Synonym. Sabicea adamsii Hepper Habit. Herb to 20 cm high.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Ghana to Congo (Kinshasa). Local distribution. Kongana. Phenology. Fruit: May (immature).

Specimens. Harris 4929.

Bertiera aethiopica Hiern

Ref. Hallé, Fl. Gabon 17: 40. 1970.

Habit. Shrub to 2.5 m high.

Habitat. Terra firma and riparian forest. Distribution. Cameroon, Gabon to Congo (Kinshasa) and Sudan. Local distribution. Dzanga to Bayanga, Kongana. Phenology. Flower: July (bud), October (bud), December (bud). Fruit: January (immature), February, December (immature).
Specimens. Harris 290, 1559, 3423, 3521, 4007, 4040, 4211, 4565, 5367, 5423; Fay 8449.

Bertiera bicarpellata (K.Schum.)N.Hallé

Ref. Hallé, Fl. Gabon 17: 37. 1970.

Habit. Unbranched herb to 40 cm high, woody below.

Habitat. Terra firma forest. Distribution. Gabon, Cameroon, Congo and Congo (Kinshasa). Local distribution. Ndakan. Phenology. Fruit: September.

Specimens. Harris 1219, 1776.

Bertiera iturensis K.Krause

Ref. Hallé, Fl. Gabon 17: 59. 1970.

Habit. Shrub to 2.5 m.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Dzanga, Kongana, Salcapa, Ndakan. Phenology. Flower: February (immature), March. Fruit: January, May, June, December.

Specimens. *Harris* 1707, 4221, 4858, 4938, 5044, 5431, 5460.

Bertiera letouzeyi N.Hallé

Ref. Hallé, Fl. Gabon 17: 52. 1970.

Habit. Shrub 1 m high.

Habitat. Light gaps in terra firma forest. Distribution. Cameroon, Gabon, Congo (Kinshasa). Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Fruit: June, August, October, November.

Specimens. *Harris* 926, 5053; *Carroll* 1509, 1578.

Bertiera loraria N.Hallé

Ref. Hallé, Fl. Gabon 17: 51. 1970.

Habit. Shrub 2 m high.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest.
 Distribution. Gabon, Cameroon to Congo (Kinshasa). Local distribution.
 Bai Hoku, Dzanga, Kongana, Lidjombo, Salcapa, Ndakan.
 Phenology. Flower: January, February. Fruit: January, March, May, July, October.

Specimens. Harris 698, 770, 1727, 3421, 3598, 4492, 4828, 4849, 4784A; Carroll 1124.

Bertiera naucleoides (S.Moore) Bridson

Ref. Bridson & Verdcourt, F.T.E.A. (Rubiaceae): 482. 1988. Synonym. Bertiera capitata De Wild

Habit. Tree 3 m high.

Habitat. Roadside vegetation. *Distribution*. Cameroon, Gabon to Uganda. *Local distribution*. Kongana. *Phenology*. Flower: February (buds).

Note. The petiole is not glabrous as reported by Hallé (Fl. Gabon 17.

1970.), as Bertiera capitata, but has adpressed hairs.

Specimens. Harris 5435.

Bertiera racemosa (G.Don) K.Schum. var. racemosa

Ref. Hallé, Fl. Gabon 17: 54. 1970.

Habit. Shrub to 2 m high.

Habitat. Light gaps in terra firma forest. Distribution. Guinea to Gabon, Uganda and Tanzania. Local distribution. Kongana. Phenology. Fruit:

December (immature).

Specimens. Harris 4063.

Brenania brieyi (De Wild.) Petit

Ref. Hallé, Fl. Gabon 17: 255. 1970.

Habit. Tree to 30 m high.

Habitat. Terra firma forest. *Distribution*. Nigeria to Congo (Kinshasa), Gabon. *Local distribution*. Lidjombo, Bayanga, Ndakan, Kongana. Specimens. *Harris* 1607, 4240; *Fay* 8665, 8852.

Calycosiphonia spathicalyx (K.Schum.) Robbr.

Ref. Robbrecht, 1981: 373. Synonym. Coffea spathicalyx K.Schum.

Habit. Tree 2 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Sudan, Tanzania and Malawi. Local distribution. Dzanga, Kongana. Phenology. Flower: January, February, December (bud). Fruit: June.

Specimens. *Harris* 2286, 3989, 4086, 4274, 4342, 4619, 5088.

Chassalia cristata (Hiern) Bremek.

Ref. Verdcourt, 1975: 272.

Habit. Vine 1.5 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Kenya, Tanzania and Angola. Local distribution. Kongana, Mondika. Phenology. Flower: April (bud), May (bud).

Specimens. Harris 4971.

Chassalia sp. A.

Habit. Shrub 1 m high.

Habitat. Gilbertiodendron dewevrei forest. Local distribution. Kongana. *Phenology*. Flower: May. Fruit: June.

Specimens. *Harris* 3402, 4905, 4932, 4994.

Chassalia sp. B.

Habit. Shrub 80 cm high.

Habitat. Gilbertiodendron dewevrei forest. *Local distribution*. Kongana. *Phenology*. Flower: May (bud). Fruit: May (immature), July (immature). **Specimens.** *Harris* 3448, 4998, 4902A.

Chazaliella sp. aff. oddonii (De Wild.) Petit & Verdc.

Ref. Verdcourt, 1977: 799.

Habit. Spindly shrub 2 m high.

Habitat. Riparian forest on the Sangha River. *Local distribution*. Ndakan. *Phenology*. Flower: February.

Specimens. Harris 259.

Chazaliella sciadephora (Hiern) Petit & Verdc. var. condensata Verdc.

Ref. Verdcourt, 1977: 790.

Habit. Shrub 1.3 m high.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Cameroon and Gabon. Local distribution. Kongana. Phenology. Flower: February, Fruit: February, March.

Note. The material from this area looks very similar to Mildbraed 8628 (K) which is described by Verdcourt (1977) as very close to a "green drying form of Chazaliella wildemaniana" although he treats the specimen as Chazaliella sciadephora. No material of C. wildemaniana was available for me. Verdcourt (1977) also raises the possiblity that the two varieties he describes for C. sciadephora might be better elevated to subspecies.

Specimens. Harris 4609, 4780, 5418.

Chazaliella sp. A.

Habit. Shrub 1 m high.

Habitat. Gilbertiodendron dewevrei forest. Local distribution. Kongana. *Phenology*. Flower: May.

Specimens. *Harris* 4928.

Chazaliella sp. B.

Habit. Shrub 60 cm high.

Habitat. Gilbertiodendron dewevrei forest. Local distribution. Kongana. *Phenology*. Flower: July.

Specimens. Harris 3385.

Coffea canephora Pierre ex A.Froehner

Ref. Bridson & Verdcourt, F.T.E.A. (Rubiaceae): 710. 1988.

Habit. Tree to 5 m high.

Habitat. Terra firma forest. Distribution. Guinea to Uganda and Tanzania. Local distribution. Ndakan, Dzanga. Phenology. Fruit: January, October.

Specimens. Harris 1765, 3543.

Coffea congensis A.Froehner

Ref. Lebrun, 1941: 95.

Habit. Tree to 4 m high.

Habitat. Seasonallly flooded and riparian forest on the Sangha River.

Distribution. Cameroon to Congo (Kinshasa). Local distribution.

Ndakan. Phenology. Flower: January, February, August, September,

November, December. Fruit: February, May, August, November, December.

Note. An endemic to the Congo Basin, often collected in both fruit and flower from the same individual.

Specimens. Harris 64, 80, 755, 1000, 1099, 1507, 1694, 1890.

Coffea liberica Hiern var. dewevrei (De Wild. & T.Durand) Lebrun Ref. Bridson & Verdcourt, F.T.E.A. (Rubiaceae): 706. 1988.

Habit. Tree to 10 m.

Habitat. Terra firma forest. Distribution. Liberia to Uganda and Angola. Local distribution. Bai Hoku. Phenology. Flower: March.

Specimens. Carroll 1079.

Colletoecema dewevrei (De Wild.) Petit

Ref. Petit, 1963: 376.

Habit. Tree 15 m high.

Habitat. Terra firma forest. Distribution. Gabon to Congo (Kinshasa).

Local distribution. Bayanga, Bai Hoku, Kongana, Lidjombo, Ndakan.

Phenology. Flower: February, March (buds). Fruit: May (immature), November.

Specimens. Harris 776, 1212, 1462, 4461, 4747, 4940; Fay 8600, 8886; Carroll 1098; Gentry 62696.

Commitheca liebrechtsiana (De Wild. ex T.Durand) Bremek.

Ref. Hallé, Fl. Gabon 12: 260, 1966.

Habit. Shrub.

Habitat. Riparian forest. Distribution. Cameroon to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Fruit: September.

Specimens. Harris 1188.

Corynanthe pachyceras K.Schum.

Ref. Stoffelen & al., 1996: 303.

Habit. Tree to 15 m.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa). Local distribution. Dzanga. Phenology. Flower: October. Specimens. Harris 3549.

Craterispermum schweinfurthii Hiern

Ref. Verdcourt, 1973: 434.

Habit. Shrub to 3 m high.

Habitat. Old fields. *Distribution*. Nigeria to Kenya, Mozambique and Angola. *Local distribution*. Bayanga, Lidjombo. *Phenology*. Flower: March (buds). November (buds).

Specimens. Harris 4748; Fay 8719.

Cremaspora triflora (Thonn.) K.Schum. subsp. triflora

Ref. Verdcourt, 1980: 131.

Habit. Shrub 2 m high.

Habitat. Seasonally flooded forest. Distribution. Senegal to Sudan,Zimbabwe and Angola. Local distribution. Ndakan. Phenology. Flower:May.

Note. Verdcourt (1980) describes this subspecies as "exceedingly variable". Specimens. *Harris* 579.

Crossopteryx febrifuga (Afzel. ex G.Don) Benth.

Ref. Keay, F.W.T.A. 2: 113. 1963.

Habit. Shrub 4 m high.

Habitat. Savanna. Distribution. Senegal to Ethiopia and South Africa.Local distribution. Yobé savanna. Phenology. Flower: July. Fruit: July.Specimens. Harris 3338.

Cuviera angolensis Welw. ex Hiern

Ref. Hallé, 1959: 342.

Habit. Tree 4 m high.

Habitat. Light gaps in *terra firma* forest. *Distribution*. Cameroon to Angola. *Local distribution*. Bayanga, Ndakan. *Phenology*. Flower: March.

Note. Treated as a synonym of *C. longiflora* by Hepper (1963) but is maintained distinct by Hallé (1959) who describes *C. angolensis* as having a style hairy to the summit.

Specimens. Harris 1269, 5463.

Dictyandra arborescens Welw. ex Hook.f.

Ref. Hallé, Fl. Gabon 17: 87. 1970.

Habit. Tree to 10 m.

Habitat. Common by roadsides and rare in seasonaly flooded forest clearings. Distribution. Guinea to Angola and Uganda. Local distribution. Bayanga, Dzanga, Ndakan, Kongana. Phenology. Flower: January, February, March. Fruit: September, October, November.
Specimens. Harris 1158, 1741, 3612, 4217, 4360, 4372, 4410, 4413, 4430, 4466, 4471, 4534, 4749, 5348, 5448, 5464A.

Didymosalpinx lanciloba (S.Moore) Keay

Ref. Hallé, Fl. Gabon 17: 262. 1970.

Habit. Tree 4 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Uganda and Angola.Local distribution. Ndakan, Kongana. Phenology. Flower: May.Specimens. Harris 1689, 4922.

Gardenia imperialis K.Schum. subsp. *physophylla* (K.Schum.) Pauwels *Ref.* Pauwels, 1985: 114.

Habit. Tree to 20 m high.

Habitat. Riparian forest. Distribution. Côte d'Ivoire to Congo (Kinshasa).Local distribution. Ndakan. Phenology. Flower: October, November.Specimens. Harris 1419, 1699.

Gardenia vogelii Hook.f. ex Planch.

Ref. Keay, F.W.T.A. 2: 123. 1963.

Habit. Tree 2 m high.

Habitat. Terra firma forest. Distribution. Liberia to Uganda, Sudan and Angola. Local distribution. Ndakan.

Specimens. Fangonda 272.

Geophila afzelii Hiern

Ref. Hepper, F.W.T.A. 2: 206. 1963.

Habit. Creeping herb.

Habitat. Roadsides and Gilbertiodendron dewevrei forest. Distribution. Guinea to Congo (Kinshasa). Local distribution. Kongana, Bayanga. *Phenology*. Fruit: January, December.

Specimens. *Harris*, 3931, 4245.

Geophila obvallata (Schumach.) Didr.

Ref. Hepper, F.W.T.A. 2: 206. 1963.

Habit. Creeping herb.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest.

Distribution. Guinea-Bissau to Mozambique. Local distribution.

Kongana, Ndakan. *Phenology*. Flower: June, August. Fruit: August, December.

Specimens. Harris 905, 4158, 5062.

Geophila renaris De Wild. & T.Durand

Ref. De Wildeman & Durand, 189: 29.

Habit. Creeping herb.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Congo (Kinshasa) and Congo (Brazzaville). Local distribution. Kongana. Phenology. Fruit: December

Note. First record outside Congo (Kinshasa) or Congo (Brazzaville). Specimens. *Harris* 4157.

Geophila repens (L.) I.M.Johnston vel sp. aff.

Ref. Hepper, F.W.T.A. 2: 205. 1963.

Habit. Creeping herb.

Habitat. Terra firma forest. Distribution. Pantropical. Local distribution. Bai Hoku.

Note. The cited specimen is a poor one which appears to belong here but further material is required.

Specimens. Harris sn.

Hallea stipulosa (DC.) J.-F.Leroy

Ref. Leroy, 1975: 66.

Habit. Tree to 25 m high.

Habitat. Riparian and swamp forest. Distribution. Senegal to Sudan and Zambia. Local distribution. Lidjombo, Ndakan, Dzanga. Phenology.

Flower: February.

Specimens. *Harris* 1232, 1914, 3572; *Fay* 8840.

Hymenocoleus hirsutus (Benth.) Robbr.

Ref. Robbrecht, 1977: 15.

Habit. Creeping herb.

Habitat. Roadsides and Gilbertiodendron dewevrei forest. Distribution.

Guinea to Uganda and Tanzania. Local distribution. Kongana, Ndakan.

Phenology. Flower: March, May. Fruit: September.

Specimens. *Harris* 1189, 4836, 5001, 573B.

Hymenocoleus scaphus (K.Schum.) Robbr.

Ref. Robbrecht, 1977: 22. Synonym. Hymenocoleus thollonii (De Wild.) Robbr.

Habit. Single stemmed shrub 40 cm high.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon, Congo (Brazzaville) and Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: May. Fruit: October.

Note. This is the only species in this genus without the characteristic creeping habit. An excellent illustration of this species, as *Hymenocoleus thollonii*, is provided by Robbrecht 1975.

Specimens. Harris 574; Fay 8668.

Hymenocoleus sp. A.

Habit. Creeping herb.

Habitat. Terra firma forest. Local distribution. Ndakan. Phenology. Flower: May.

Note. It is possible that this is a form of *H. hirsutus* which is glabrous on the upper surface of the leaf, including the midrib. Because of the glabrous midrib above, this does not key out to *H. hirsutus* in the species key by Robbrecht (1977).

Specimens. Harris 5582, 573A.

Ixora bauchiensis Hutch. & Dalziel

Ref. De Block, 1998: 88.

Habit. Tree to 4 m.

Habitat. Seasonally flooded forest. Distribution. Nigeria to Central African Republic. Local distribution. Ndakan. Phenology. Flower: February. Specimens. Harris 1891.

Ixora brachypoda DC.

Ref. De Block, 1998: 90.

Habit. Tree to 5 m high.

Habitat. Riparian forest. *Distribution*. Senegal to Sudan, Zambia and Zimbabwe. *Local distribution*. Bai Hoku, Kongana, Ndakan. *Phenology*. Flower: February, April, May, June, October. Fruit: January, February.

Note. Leaf shape, size and venation appears to vary greatly within this species in this area: De Block (1998) found no correlation between patterns of morphological variation and geography across the whole range of the species.

Specimens. *Harris* 124, 423, 818, 1421, 1960, 4926, 5039, 5443; *Carroll* 1054.

Keetia gracilis (Hiern) Bridson vel sp. aff.

Ref. Bridson, 1986: 986.

Habit. Low liana.

Habitat. Riparian forest. Distribution. Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: February. Fruit: February.Specimens. Harris 1917, 4482.

Keetia gueinzii (Sond.) Bridson

Ref. Bridson, 1986: 970.

Habit. Vine or scrambling shrub.

Habitat. Seasonally flooded sedge meadow. Distribution. Cameroon to
 Ethiopia and South Africa. Local distribution. Ndakan (from Njeke).
 Phenology. Flower: January, September. (bud), October. Fruit: January.
 Specimens. Harris 123, 1077, 1365.

Keetia ripae (De Wild.) Bridson

Ref. Bridson, 1986: 968.

Habit. Vine.

Habitat. Riparian forest on the Sangha River. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: July. Fruit: July, September.

Specimens. *Harris* 855, 1097; *Thomas* 7218, 7290.

Keetia venosa (Oliv.) Bridson

Ref. Bridson, 1986: 944.

Habit. Liana.

Habitat. Riparian forest on the Sangha River. Distribution. Senegal to Sudan, Kenya, Mozambique and Angola. Local distribution. Ndakan. Phenology. Flower: August, December.

Specimens. Harris 962, 1660.

Keetia zanzibarica (Klotzsch) Bridson subsp. *gentilii* (De Wild.) Bridson *Ref.* Bridson, 1986: 979.

Habit, Liana.

Habitat. Riparian forest on the Sangha River. Distribution. Central African Republic to Ethiopia and Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: February. Fruit: July.

Note. This record is from the edge of the western range of this subspecies given by Bridson (1986).

Specimens. Harris 1807; Thomas 7219.

Lasianthus batangensis K.Schum.

Ref. Denys, 1981: 451.

Habit. Shrub to 1 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa). Local distribution. Kongana. Phenology. Fruit: February, December.

Specimens. Harris 4159, 4438, 4608.

Lasianthus repens Hepper

Ref. Denvs. 1981: 451.

Habit. Herb.

Habitat. Gilbertiodendron dewevrei and mixed species terra firma forest.

Distribution. Guinea to Gabon and Congo (Kinshasa). Local

distribution. Kongana, Ndakan. *Phenology*. Flower: May, November. Fruit: July, November.

Specimens. *Harris* 1560, 3505, 4931.

Leptactina involucrata Hook.f.

Ref. Hallé, Fl. Gabon 17: 90. 1970. *Synonym. Dictyandra involucrata* (Hook.f.) Hiern *Habit*. Tree to 10 m high.

Habitat. Roadside vegetation. Distribution. Sierra Leone to Gabon and Congo (Kinshasa). Local distribution. Ndakan, Bayanga, Kongana. Phenology. Flower: November, October. Fruit: January, February, December.

Note. Not climbing as described by Keay (F.W.T.A 2. 1963). See Robbrecht (1984) for discussion on generic characters for *Dictyandra* and *Leptactina*.

Specimens. Harris 1401, 1735, 4021, 4371, 4404, 4558, 5341, 5388, 5440.

Leptactina leopoldi-secundi Büttner

Ref. Hallé, Fl. Gabon, 17: 76. 1970.

Habit. A semi-scandent shrub.

Habitat. Seasonally flooded sedge meadow. Distribution. Gabon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: May. Fruit: August.

Specimens. Harris 651, 979.

Leptactina pynaertii De Wild.

Ref. Hallé, Fl. Gabon 17: 82. 1970.

Habit. Tree to 4 m.

Habitat. Common in Gilbertiodendron dewevrei forest but also on roadsides. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Bayanga, Kongana. Phenology. Flower: February, March, May, June. Fruit: July.

Specimens. Harris 3355, 3410, 3484, 4658, 4669, 4718, 4728, 5019, 5050, 5413, 5524.

Massularia acuminata (G.Don) Bullock ex Hoyle

Ref. Hallé, Fl. Gabon 17: 178. 1970.

Habit. Tree 6 m high.

Habitat. Terra firma forest. Distribution. Guinea to Congo (Kinshasa) and Angola. Local distribution. Bai Hoku, Ndakan, Kongana, Dzanga.

Phenology. Flower: June, July, August. Frut: July.

Specimens. Harris 497, 928; Carroll 1096.

Morelia senegalensis A.Rich.

Ref. Hallé, Fl. Gabon 17: 174. 1970.

Habit. Shrub to 4 m high.

Habitat. Riparian forest on the Sangha River and seasonally flooded forest.Distribution. Senegal to Sudan, Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Flower: January (bud), February, March. Fruit: August.

Specimens. Harris 886, 1895, 2029.

Morinda longiflora G.Don

Ref. Hepper, F.W.T.A. 2: 189. 1963.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Guinea to Congo (Kinshasa). Local distribution. Kongana. Phenology. Fruit: June, December.

Specimens. Harris 3942, 5126.

Morinda lucida Benth.

Ref. Hepper, F.W.T.A. 2: 189. 1963.

Habit. Tree 15 m high.

Habitat. Common in old fields and occasionally in terra firma forest.

Distribution. Senegal to Sudan, Angola and Tanzania. Local distribution. Bayanga. Phenology. Fruit: August.

Specimens. Harris 1018.

Morinda morindoides (Baker) Milne-Redh.

Ref. Hepper, F.W.T.A. 2: 189. 1963.

Habit. Liana.

Habitat. Roadsides and riparian forest on the Sangha River. Distribution. Guinea Bissau to Sudan and Angola. Local distribution. Ndakan.

Phenology. Flower January, March (buds).

Specimens. Harris 4754; Fangonda 258.

Mussaenda arcuata Lam. ex Poir.

Ref. Hallé, Fl. Gabon 12: 152. 1966.

Habit. Vine.

Habitat. Roadside vegetation and light gaps. Distribution. Guinea to Madagascar. Local distribution. Kongana. Phenology. Flower: May, March. Fruit: February, June, December.

Note. Both glaucous and pubescent forms of this species have been collected in this area.

Specimens. Harris 4555, 4963, 4974, 5030, 5368, 5518.

Mussaenda elegans Schumach. & Thonn.

Ref. Hepper, F.W.T.A. 2: 167. 1963.

Habit. Vine 3 m high.

Habitat. Roadside vegetation. Distribution. Mali to Sudan and Uganda. Local distribution. Bai Hoku. Phenology. Flower: May. Fruit: May (immature).

Specimens. Harris 5563.

Mussaenda erythrophylla Schumach. & Thonn.

Ref. Hallé, Fl. Gabon 12: 148. 1966.

Habit. Vine.

Habitat. Roadside vegetation and light gaps. Distribution. Guinea to Sudan, Kenya, Tanzania and Angola. Local distribution. Bai Hoku, Kongana. Phenology. Flower: February, March, May. Fruit: May.
Specimens. Harris 4393, 4963, 5481; Carroll 1142.

Nauclea diderrichii (De Wild.) Merr.

Ref. Hallé, Fl. Gabon 12: 44. 1966.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Uganda and Angola. Local distribution. Bayanga, Kongana, Ndakan, Dzanga, Bai Hoku. Phenology. Flower: January, November. Fruit: November.
 Specimens. Harris 183, 1288, 1597, 3599, 4244, 5362, 5434.

Nauclea gilletii (De Wild.) Merr.

Ref. Fl. Gabon 12: 4.

Habit. Tree 15 m high.

Habitat. Riparian forest along streams. Distribution. Nigeria to Gabon and Congo (Kinshasa). Local distribution. Dzanga. Phenology. Flower: October.

Note. The elliptic leaves, the absence of ants in the stems, and the lines of hairs on the inner face of the corolla lobes were used in identifying this material. Using the key by Hallé (Fl. Gabon 12, 1966) this material comes out as *N. vanderguchtii*, based mainly on the 5 cm diameter inflorescence. There is however, not enough material of *N. gilletii* at Kew to verify the fruit size in that species.

Specimens. Harris 3596.

Oldenlandia corymbosa L.

Ref. Hepper, F.W.T.A. 2: 211. 1963.

Habit. Herb.

Habitat. Bare ground in fields. Distribution. Pantropical. Local distribution. Ndakan. Phenology. Flower: March.Specimens. Harris 302.

Oldenlandia goreensis (DC.) Summerh.

Ref. Hepper, F.W.T.A. 2: 211. 1963.

Habit. Herb.

Habitat. Sedge meadow. Distribution. Tropical Africa and Madagascar.Local distribution. Ndakan. Phenology. Flower: November.Specimens. Harris 1525.

Otomeria micrantha K.Schum.

Ref. Verdcourt 1953a: 11.

Habit. Shrublet 60 cm high.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: February. Specimens. Harris 1786.

Oxyanthus gracilis Hiern

Ref. Sonké, 1999: 77.

Habit. Tree 1.5 m high.

Habitat. Light gaps in terra firma forest. Distribution. Nigeria to Gabon and Congo (Kinshasa). Local distribution. Kongana, Bayanga, Ndakan. Phenology. Flower: February, March, May. Fruit: January, February, May. July (immature). December.

Specimens. *Harris* 59, 687, 1686, 3381, 4236, 4447, 4736, 4891, 5505.

Oxyanthus speciosus DC. subsp. speciosus

Ref. Sonké, 1999: 86.

Habit. Tree to 10 m high.

Habitat. Light gaps and roadside vegetation. Distribution. Senegal to South Africa. Local distribution. Lidjombo, Bayanga, Dzanga to Bayanga.

Phenology. Flower: March. Fruit: January, December.

Specimens. *Harris* 3922, 4208, 4778B; *Fay* 8863.

Pauridiantha dewevrei (De Wild. & T.Durand) Bremek.

Ref. Hallé, Fl. Gabon 12: 249. 1960.

Habit. Tree to 6 m high.

Habitat. Light gaps in terra firma forest and roadside vegetation.

Distribution. Cameroon, Gabon, Congo (Kinshasa), Rwanda. Local distribution. Kongana, Ndakan, Dzanga, Bai Hoku. Phenology. Flower: February, May, July. Fruit: February, June, July.

Specimens. Harris 952, 3327, 3422, 3937, 4403, 4907; Carroll 1506.

Pauridiantha floribunda (K.Schum. & K.Krause) Bremek.

Ref. Hepper, F.W.T.A. 2: 168. 1963.

Habit. Tree 2 m high.

Habitat. Roadside vegetation and light gaps in terra firma forest.

Distribution. Nigeria to Central African Republic and Gabon. *Local distribution.* Lidjombo, Kongana, Dzanga, Salcapa. *Phenology.* Flower: March (buds), June (buds).

Specimens. Harris 3611, 4055, 4373, 4796, 5048, 5470.

Pauridiantha pyramidata (K.Krause) Bremek.

Ref. Hallé, Fl. Gabon 12: 241. 1966.

Habit. Tree to 2 m high.

Habitat. Riparian forest. Distribution. Cameroon, Gabon, Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: February, March, April, May, October. Fruit: October.

Specimens. *Harris* 408, 664, 1491, 2018, 5415.

Pausinystalia macroceras (K.Schum.) Pierre ex Beille

Ref. Stoffelen & al., 1996: 311.

Habit. Tree to 20 m.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Ndakan, Kongana, Lidjombo, Bai Hoku. *Phenology*. Flower: July. Fruit: February, March.

Note. Although the inflorescence appears terminal, there is a terminal bud which means that in the key by Stoffelen & al. (1996) this species should be keyed out as "inflorescence axillary".

Specimens. Harris 227, 323, 3442, 4557, 5447; Fay 8631; Carroll 1540; Gentry 62143.

Pavetta calothrysa Bremek.

Ref. Manning, 1996: 106.

Habit. Tree to 8 m high.

Habitat. Light gaps in terra firma forest. Distribution. Cameroon, Gabon, to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: March. Fruit: January, October.

Note. Manning (1996) maintains this species as distinct from *P. nitida* into which it was sunk by Bridson (1978a).

Specimens. Harris 282, 1354, 1734, 1974, 5492.

Pouchetia baumanniana Büttner

Ref. Robbrecht & al., 1991: 150. Synonym. Pouchetia gilletii De Wild.

Habit. Scandent shrub.

Habitat. Riparian forest on the Sangha River. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Flower: December.

Specimens. Harris 1655.

Pseudomussaenda stenocarpa (Hiern) Petit

Ref. Hallé, Fl. Gabon 12: 138. 1966.

Habit. Vine.

Habitat. Light gaps and roadside vegetation. Distribution. Gabon to Congo (Kinshasa), Central African Republic and Cameroon. Local distribution.

Ndakan, Kongana, Salcapa. *Phenology*. Flower: January, March, May, December.

Note. Bridson & Verdcourt (F.T.E.A. (Rubiaceae) 1988) have questioned the validity of keeping this genus separate from *Mussaenda*. Puff & al. (1993) maintained the two genera as separate but they agreed that they are closely related and admitted that "there might be problems delimiting the two genera".

Specimens. *Harris* 5, 4835, 4906; *Fangonda* 261.

Psilanthus mannii Hook.f.

Ref. Keay, F.W.T.A. 2: 157. 1963.

Habit. Tree to 4 m.

Habitat. Terra firma forest. Distribution. Ghana to Congo (Kinshasa) and Angola. Local distribution. Ndakan. Phenology. Flower: February.

Fruit: January, April, May, July.

Specimens. Harris 129, 211, 219, 541; Fay 8510; Gentry 62788.

Psychotria brevipaniculata De Wild.

Ref. Petit, 1966: 176.

Habit. Shrub to 1.5 m high, occasionally semi-scandent.

Habitat. Light gaps in terra firma forest. Distribution. Cameroon, to Uganda. Local distribution. Ndakan, Dzanga, Kongana. Phenology. Fruit: January, October, December.

Note. The white dots on the immature fruit recorded by Breteler on his label 235 from Cameroon are present on specimens from this area. **Specimens**. *Harris* 176, 3613, 4089.

Psychotria calva Hiern

Ref. Petit, 1966: 100.

Habit. Shrub 2 m high.

Habitat. Riparian forest. Distribution. Senegal to Congo (Kinshasa) and Gabon. Local distribution. Dzanga. Phenology. Fruit: October, December.

Specimens. Harris 3604, 3908.

Psychotria cyanopharynx K.Schum.

Ref. Petit, 1964: 185.

Habit. Shrub to 1 m high.

Habitat. Gilbertiodendron dewevrei forest, occasionally in mixed species forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: February, May. Fruit: April (immature).

Specimens. Harris 477, 4526, 4734, 4888, 5417, 5424.

Psychotria laurentii De Wild.

Ref. Petit, 1964: 80.

Habit. Shrub 2 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Congo
 (Brazzaville) to Congo (Kinshasa). Not recorded from Gabon. Local distribution. Ndakan. Phenology. Flower: February, April. Fruit: April (immature), July (immature), September.

Specimens. Harris 513, 569, 1114, 1925; Thomas 7266.

Psychotria minuta Petit

Ref. Petit, 1964: 164.

Habit. Creeping herb to 20 cm high.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Kongana. Phenology. Flower: February. Fruit: February.

Specimens. Harris 4634.

Psychotria peduncularis (Salisb.) Steyerm. vel sp. aff.

Ref. Verdcourt, 1975: 257.

Habit. Subshrub 40 cm high.

Habitat. Terra firma forest. Distribution. Senegal to Tanzania. Local distribution. Ndakan, Kongana. Phenology. Flower: May. Fruit: August. Specimens. Harris 997, 5021.

Psychotria vogeliana Benth.

Ref. Petit, 1964: 135.

Habit. Shrub 1.5 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Guinea to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: March.

Specimens. Harris 287.

Psychotria sp. A.

Habit. Shrub 40 cm high.

Habitat. Gilbertiodendron dewevrei forest. Local distribution. Kongana. *Phenology*. Flower: February.

Specimens. Harris 5422.

Psychotria sp. B.

Habit. Tree 1.8 m high.

Habitat. Seasonally flooded forest. Local distribution. Bayanga.

Phenology. Fruit: January.

Specimens. Harris 4288.

Psychotria sp. C.

Habit. Creeping herb to 30 cm high.

Habitat. Gilbertiodendron dewevrei forest. Local distribution. Kongana. Phenology. Flower: February, Fruit: January, May, July.

Note. Not matched with any material at Kew. The habit is the same as that of *Psychotria minuta*, but the stipules are very different in the two species.

Specimens. *Harris* 3439, 4340, 5015, 5420.

Psychotria sp. D.

Habit. Herb 40 cm high.

Habitat. Roadside vegetation. Local distribution. Kongana. Phenology.

Flower: March. **Specimens.** *Harris* 5490.

Psychotria sp. E.

Habit. Low shrub.

Habitat. Terra firma forest. Local distribution. Bai Hoku.

Specimens. Harris sn.

Psydrax arnoldiana (De Wild. & T.Durand) Bridson

Ref. Bridson, 1985: 699.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Lidjombo, Ndakan. Phenology. Fruit: November.

Note. The stipules are persistant and not caducous as described in species key by Hepper (F.W.T.A. 2. 1963), under *Canthium arnoldianum*. Specimens. *Harris* 2267; *Fay* 8868.

Psydrax palma (K.Schum.) Bridson

Ref. Bridson, 1985: 699.

Habit. Tree to 8 m.

Habitat. Light gaps in terra firma forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Kongana. Phenology. Flower: June

Specimens. Harris 3985, 4412, 5026.

Psydrax parviflora (Afzel.) Bridson

Ref. Bridson, 1985: 700.

Habit. Tree to 10 m high.

Habitat. Old fields and light gaps. Distribution. Senegal to Uganda, Congo (Kinshasa) and Angola. Local distribution. Bayanga. Phenology.

Flower: October. Specimens, Harris 3509.

Psydrax subcordata (DC.) Bridson var. **connata** (De Wild. & T.Durand) Bridson

Ref. Bridson, 1985: 698.

Habit. Tree to 14 m high.

Habitat. Roadside vegetation, seasonally flooded clearings and light gaps in *terra firma* forest. *Distribution*. Gambia to Sudan, Congo (Kinshasa) and Angola. *Local distribution*. Ndakan, Dzanga. *Phenology*. Flower: June, August, September, October.

Specimens. Harris 835, 1022, 1159, 3552.

Rothmannia hispida (K.Schum.) Fagerl.

Ref. Keay, F.W.T.A. 2: 125. 1963.

Habit. Shrub 2 m high.

Habitat. Terra firma forest. Distribution. Guinea to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: May.

Specimens. Harris 658.

Rothmannia lateriflora (K.Schum.) Keay

Ref. Keay, 1958: 52.

Habit. Shrub 2 m high.

Habitat. Mixed species and Gilbertiodendron dewevrei forest. Distribution.

Gabon, Cameroon to Congo (Kinshasa). Local distribution. Kongana.

Phenology. Flower: May. Fruit: February (immature).

Specimens. *Harris* 3429, 4946, 5419.

Rothmannia longiflora Salisb.

Ref. Keay, F.W.T.A. 2: 125. 1963.

Habit. Tree to 2 m high.

Habitat. Roadside vegetation and light gaps in terra firma forest.

Distribution. Guinea Bissau to Sudan, Kenya, Tanzania and Angola. *Local distribution*. Kongana, Ndakan. *Phenology*. Flower: March. Fruit: March.

Specimens. Harris 280, 5483.

Rothmannia macrocarpa (Hiern) Keay

Ref. Somers & Robbrecht, 1991.

Habit. Tree 5–6 m high.

Habitat. Terra firma forest. Distribution. Gabon and Equatorial Guinea to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Fruit: February.

Note. Although not recorded from Cameroon by Sonké & Simok (1996) this species probably occurs in south eastern Cameroon.

Specimens. Harris 900, 4408.

Rothmannia octomera (Hook.) Fagerl.

Ref. Keay, F.W.T.A. 2: 125. 1963.

Habit. Tree to 2 m high.

Habitat. Terra firma forest. Distribution. Nigeria, Cameroon, Gabon to Congo (Kinshasa). Local distribution. Dzanga, Bayanga. Phenology. Flower: June. Fruit: December.

Specimens. Harris 3379, 3883.

Rothmannia urcelliformis (Schweinf. ex Hiern) Bullock ex Robyns *Ref.* Keay, F.W.T.A. 2: 125. 1963.

Habit. Tree to 8 m high.

Habitat. Terra firma forest and roadsides. Distribution. Guinea to Ethiopia,Zimbabwe, Mozambique and Angola. Local distribution. Bayanga toLidjombo, Dzanga, Ndakan, Kongana. Phenology. Flower: March.

Fruit: May, August, October.

Specimens. *Harris* 965, 3622, 4750, 5020.

Rothmannia whitfieldii (Lindl.) Dandy

Ref. Keay, F.W.T.A. 2: 126. 1963.

Habit. Tree 4 m high.

Habitat. Terra firma forest, old fields and roadsides. Distribution. Senegal to Sudan, Malawi, Zimbabwe, Tanzania and Angola. Local distribution.
 Bayanga, Ndakan. Phenology. Flower: June, September. Fruit: March.
 Specimens. Harris 355, 1042, 3344.

Rutidea dupuisii De Wild. subsp. occidentalis Bridson

Ref. Bridson, 1978b: 257.

Habit. Vine 2 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Central African Republic. Local distribution. Dzanga, Bai Hoku, Ndakan. Phenology. Flower: February, December. Fruit: December.

Specimens. Harris 1709, 3542; Carroll 1066.

Rutidea sp. aff. nigerica Bridson

Ref. Bridson, 1978b: 258.

Habit. Vine to 3 m high.

Habitat. Gilbertiodendron dewevrei forest. Local distribution. Kongana, Dzanga. Phenology. Flower: December. Fruit: January, December.

Note. From the description of Bridson (1978) the calyx lobes on the specimens from this area are too long for this species. *R. hispida*, *R. nigerica*, *R. hirsuta* and *R. sp.* A of Bridson (1978) all appear to be closely related and to require further investigation.

Specimens. Harris 3909, 4172, 4218.

Rytigynia sp. aff. pauciflora (Schweinf.) Robyns

Ref. Verdcourt, 1987: 170.

Habit. Liana.

Habitat. Light gaps and roadsides. *Local distribution*. Kongana. *Phenology*. Flower: May.

Note. I consider this to be conspecific with Letouzey 4725 (K) from near Batouri (Cameroon). All these specimens differ from Rytigynia pauciflora in the absence of spines on the young leafy branches. These specimens have, however, three branches arising from the main woody stems, one of which becomes a spine. This unusual kind of spine formation can be seen on specimens of Vangueriella laxiflora, e.g. Thomas & al. 5544 (K), and also some specimens of Vangueriella olacifolia. It is only rarely possible to observe this character on a herbarium sheet.

Specimens, Harris 3957, 4125, 4934, 4942.

Rytigynia umbellata (Hiern) Robyns vel sp. aff.

Ref. F.W.T.A. 2: 186.

Habit. Spindly shrub.

Habitat. Marshy clearings. *Distribution*. Guinea-Bissau to Kenya and Zambia. *Local distribution*. Ndakan, Lidjombo. *Phenology*. Flower: September. Fruit: September.

Note. This genus appears to be in need of revision in central Africa. Specimens. *Harris* 1161, 4811.

Rytigynia verruculosa (Krause) Robyns vel sp. aff.

Ref. Robyns, 1928: 218.

Habit. Tree 2 m high.

Habitat. Light gaps in terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: May. Specimens. Harris 773: Fay 8836.

Sabicea calvcina Benth.

Ref. Hallé, Fl. Gabon 12: 186.

Habit. Liana 2 m high.

Habitat. Roadside vegetation. *Distribution*. Sierra Leone to Mayombe and Uganda. *Local distribution*. Kongana. *Phenology*. Flower: January, February. Fruit: February.

Specimens. Harris 4388, 5391.

Sabicea congensis Wernham vel sp. aff.

Ref. Wernham, 1918: 309.

Habit. Liana.

Habitat. Seasonally flooded forest. *Local distribution.* Ndakan. *Phenology.* Flower: January, October.

Specimens. Harris 200, 1425.

Sabicea dinklagei K.Schum.

Ref. Hallé, Fl. Gabon 12: 169.

Habit. Liana.

Habitat. Terra firma and riparian forest. Distribution. Cameroon to Uganda, Gabon and Zimbabwe. Local distribution. Dzanga, Kongana. *Phenology*. Flower: February, October.

Specimens. Harris 3546, 4706.

Sabicea orientalis Wernham vel sp. aff.

Ref. Hallé, Fl. Gabon 12: 165.

Habit. Liana 3 m high.

Habitat. Terra firma forest. Local distribution. Yobe, Bai Hoku, Kongana, Salcapa. Phenology. Flower: February, March, September. Fruit: March, July.

Specimens. Harris 1087, 3336, 4831, 5451, 5467; Carroll 1123.

Sacosperma paniculatum (Benth.) G. Taylor

Ref. Hepper, F.W.T.A. 2: 213. 1963.

Habit. Low vine.

Habitat. Riparian forest. *Distribution*. Senegal to Congo (Kinshasa). *Local distribution*. Ndakan, Salcapa. *Phenology*. Fruit: February, November.

Note. The yellow, curly hairs on the underside of the leaves on the specimens from this area are absent from the other material of this species at Kew.

Specimens. Harris 1631, 5453.

Sarcocephalus latifolius (Sm.) E.A.Bruce

Ref. Ridsdale, 1975: 547. Synonym. Nauclea latifolia Sm.

Habit. Shrub.

Habitat. Savanna. Distribution. Senegal to Sudan and Uganda. Local distribution. Yobe savanna. Phenology. Fruit: July (unripe).Specimens. Harris 3340.

Sarcocephalus pobeguinii Pobég.

Ref. Ridsdale, 1975: 547. Synonym. Nauclea pobeguinii (Pobég.) Merr.

Habit. Tree to 20 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Senegal to Zambia. Local distribution. Ndakan. Phenology. Flower: May, August.

Note. I agree with Verdcourt (unpublished manuscript for Fl. Zamb.) that Pobéguin (1906) has satisfied the requirements for valid publication and that, in spite of the views of Petit (1958, 1962), Pobéguin is the correct author for this species.

Specimens. Harris 813, 882.

Schumanniophyton magnificum (K.Schum.) Harms

Ref. Hutchinson & Dalziel, F.W.T.A. 2: 116. 1963.

Habit. Tree 5 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Gabon, Cameroon and Congo (Kinshasa). Local distribution. Ndakan. Phenology. Fruit: April. Specimens. Harris 491.

Sherbournia curvipes (Wernham) N.Hallé

Ref. Hallé, Fl. Gabon 17: 141. 1970.

Habit. Liana 8 m high.

Habitat. Roadside vegetation and light gaps. Distribution. Cameroon to Congo (Kinshasa), Gabon also. Local distribution. Dzanga, Ndakan, Kongana, Lidjombo. Phenology. Flower: May, June (bud), August (bud). Fruit: February, March (immature), May (immature), June, July.
Specimens. Harris 911, 3357, 3426, 4552, 5519, 5585.

Spermacoce sp. A.

Habit. Herb.

Habitat. Light gaps in terra firma forest. Local distribution. Ndakan. *Phenology*. Flower: August.

Specimens, Harris 872.

Stipularia elliptica Schweinf. ex Hiern

Ref. Fl. Gabon, 12: 158.

Habit. Herb to 1.5 m high.

Habitat. Edge of Sangha River. Distribution. Nigeria to Congo (Kinshasa) and Sudan. Local distribution. Ndakan. Phenology. Flower: April. Fruit: September.

Specimens. *Harris* 417, 520, 1096.

Tarenna eketensis Wernham

Ref. Fl. Gabon, 17: 114.

Habit. Shrub, semi-scandent.

Habitat. Terra firma forest. Distribution. Liberia to Congo (Kinshasa). Local distribution. Kongana. Phenology. Flower: June.

Specimens. Harris 5096.

Tarenna gilletii (De Wild. & T.Durand) N.Hallé ex Gereau

Ref. Fl. Gabon, 17: 115.

Habit. Liana, 2-5 m high.

Habitat. Terra firma forest. Distribution. Congo (Kinshasa). Local distribution. Dzanga, Kongana, Bayanga. Phenology. Fruit: January, December.

Specimens. Harris 4156, 4210.

Note. The combination by Hallé was validated by Gereau (1998).

Tarenna lasiorachis (K.Schum. & K.Krause) Bremek. vel sp. aff.

Ref. Hallé, Fl. Gabon 17: 110. 1970.

Habit. Tree to 5 m.

Habitat. Roadside vegetation. *Distribution*. Cameroon, Gabon, Congo (Kinshasa). *Local distribution*. Dzanga. *Phenology*. Flower: March. Specimens. *Harris* 4761, 4762.

Tarenna laurentii (De Wild.) Garcia

Ref. Fl. Gabon, 17: 96.

Habit. Tree to 5 m.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa).Local distribution. Dzanga, Ndakan. Phenology. Flower: May, October.Fruit: October.

Specimens, Harris 1463, 2553, 3372, 3519, 3553, 3614, 4690.

Tarenna sp. A.

Habit. Tree 5 m high.

Habitat. Terra firma forest. Distribution. Cameroon and Gabon. Local distribution. Bai Hoku, Ndakan. Phenology. Flower: February. Fruit: May.

Specimens. Harris 647; Carroll 1010.

Tarenna sp. B.

Habit. Tree 2 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Cameroon.Local distribution. Bayanga. Phenology. Flower: January.Specimens. Harris 4289.

Tricalysia anomala E.A.Bruce var. guineensis Robbr.

Ref. Robbrecht, 1983: 314.

Habit. Small tree.

Habitat. Gilbertiodendron dewevrei and mixed species terra firma forest.

Distribution. Côte d'Ivoire to Central African Republic. Local

distribution. Bai Hoku, Kongana. *Phenology*. Fruit: November. Specimens. *Harris* 3409, 4071; *Carroll* 1583.

Tricalysia coriacea (Benth.) Hiern subsp. coriacea

Ref. Robbrecht, 1987: 79.

Habit. Tree to 4 m.

Habitat. Riparian forest. Distribution. Sierra Leone to Mozambique,

Zambia and Angola. Local distribution. Kongana, Ndakan. Phenology.

Flower: September. Fruit: January, February.

Specimens. *Harris* 125, 1075, 4621.

Tricalysia crepiniana De Wild. & T.Durand

Ref. Robbrecht, 1979: 329.

Habit. Tree 4 m high.

Habitat. Light gaps in mixed species terra firma forest and in Gilbertiodendron dewevrei forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower(old): January.

Specimens. Harris 1363, 1761, 3571, 3597, 4022, 4133, 4399, 4818, 5436; Fay 8729; Carroll 1559.

Tricalysia elliotii K.Schum. var. centrafricana Robbr.

Ref. Robbrecht, 1983: 311.

Habit. Tree 4 m.

Habitat. Terra firma forest. Distribution. Cameroon to Uganda and Angola. Local distribution. Dzanga. Phenology. Flower(buds): November. Fruit: July, October.

Specimens. Harris 3474, 3610; Fangonda 240.

Tricalysia longituba De Wild. var. *longituba*

Ref. Robbrecht, 1982: 320.

Habit. Tree 5 m high.

Habitat. Riparian forest on the Sangha River and in seasonally flooded forest clearings. Distribution. Cameroon to Zambia. Local distribution.
 Ndakan. Phenology. Flower: February, July, September. Fruit: January.
 Specimens. Harris 114, 118, 847, 1154, 1796.

Tricalysia macrophylla K.Schum.

Ref. Robbrecht, 1979: 339.

Habit. Tree to 25 m high.

Habitat. Terra firma and seasonally flooded forest. Distribution. Côte d'Ivoire to Cameroon and Gabon. Local distribution. Ndakan.

Phenology. Flower (buds): October. Fruit: March.

Specimens. Harris 330, 1397.

Tricalysia oligoneura K.Schum.

Ref. Robbrecht, 1987: 135.

Habit. Tree 4 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa).

Local distribution. Dzanga, Kongana, Lidjombo, Ndakan. Phenology.

Flower: January, February, December. Fruit: March.

Specimens. *Harris* 68, 86, 3916, 4450, 4775.

Tricalysia pallens Hiern

Ref. Robbrecht, 1987: 114.

Habit. Tree 3 m high.

Habitat. Light gaps and roadside vegetation. Distribution. Liberia to Kenya, Mozambique, Angola. Local distribution. Dzanga, Kongana.

Phenology. Flower: January, December.

Specimens. *Harris* 3891, 3969, 4216, 4674.

Tricalysia sp. A.

Habit. Tree 4 m high.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest. Local distribution. Ndakan, Kongana, Bai Hoku. Phenology. Fruit: February.

Specimens. Harris 1357, 4318, 4337, 4429, 4451, 4723; Carroll 1074.

Trichostachys microcarpa K.Schum.

Ref. Schumann, 1901: 88.

Habit. Herb to 40 cm.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Congo (Kinshasa). Local distribution. Ndakan. Phenology. Fruit: November.

Specimens. Harris 1086, 3412, 3501.

Uncaria africana G.Don var. angolensis Havil.

Ref. Petit, 1957: 447.

Habit. Vine.

Habitat. Light gaps and roadsides. *Distribution*. Guinea Bissau to Uganda. *Local distribution*. Bai Hoku, Ndakan, Kongana. *Phenology*. Flower:

October, Fruit: December.

Specimens. Harris 1479, 4004, 5366; Carroll 1500.

Vangueriella orthacantha (Mildbr.) Bridson & Verdc.

Ref. Verdcourt, 1987: 198. Synonym. Canthium orthacanthum (Mildbr.) Robyns Habit. Shrub.

Habitat. Terra firma forest. Distribution. Liberia to Congo (Kinshasa). Local distribution. Kongana.

Specimens. *Harris* 4012, 5046, 5119, 5506.

Virectaria procumbens (Sm.) Bremek.

Ref. Verdcourt 1953b: 46.

Habit. Herb.

Habitat. Light gaps in terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: August.

Specimens. Harris 917.

Rutaceae

Citropsis articulata (Spreng.) Swingle & Kellerm.

Ref. Hutchinson & Dalziel F.W.T.A. 1: 688. 1958.

Habit. Tree 3 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Sudan, Uganda and Tanzania. Local distribution. Ndakan. Phenology. Fruit: April, October.

Specimens. Harris 530, 1411.

Clausena anisata (Willd.) Hook.f. ex Benth.

Ref. Hutchinson & Dalziel F.W.T.A. 1: 686. 1958.

Habit. Small tree.

Habitat. Roadside vegetation. Distribution. Guinea to Ethiopia and South Africa. Local distribution. Bayanga. Phenology. Flower: March. Specimens. Harris 5522.

Vepris glaberrima (Engl.) J.B. Hall ex D.J. Harris

Ref. Harris 2000b: 458. Synonym: Oriciopsis glaberrima Engl.

Habit. Small tree.

Habitat. Terra firma forest. Distribution. Cameroon and Central African Republic. Local distribution. Kongana, Ndakan.

Note. This appears to be the first record outside Cameroon.

Specimens. *Harris* 1235, 1470, 3627, 4625.

Zanthoxylum gilletii (De Wild.) P.G.Waterman

Ref. Kokwaro, F.T.E.A. (Rutaceae): 38. 1982.

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Tanzania,

Zimbabwe and Angola. Local distribution. Kongana, Lidjombo.

Phenology. Flower: May, June.

Specimens. *Harris* 4030, 4378, 4402, 4688, 4918, 5067; *Fay* 8614.

Zanthoxylum lemairei (De Wild.) P.G.Waterman

Ref. Waterman, 1975: 364.

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Uganda. Local distribution. Bai Hoku, Kongana. Phenology. Fruit: October.

Specimens. *Harris* 3486, 4031, 4379, 4401, 4672, 5432; *Carroll* 1127, 1492.

Zanthoxylum leprieurii Guill. & Perr.

Ref. Kokwaro, F.T.E.A. (Rutaceae): 39. 1982.

Habit. Tree 15 m high.

Habitat. Abandoned logging road. *Distribution*. Senegal to Mozambique, Angola and South Africa. *Local distribution*. Kongana.

Specimens. Harris 4893.

Zanthoxylum poggei (Engl.) P.G.Waterman

Ref. Waterman, 1975: 364.

Habit. Liana 5 m high.

Habitat. Light gaps. Distribution. Cameroon and Gabon to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower:

August. Fruit: April, September.

Specimens. Harris 1030, 1088, 4051; Fangonda 522.

Zanthoxylum rubescens Planch ex Hook.f. vel sp. aff.

Ref. Kokwaro, F.T.E.A. (Rutaceae): 44. 1982.

Habit. Tree 10 m high.

Habitat. Seasonally flooded forest. *Distribution*. Guinea-Bissau to Kenya and Angola. *Local distribution*. Kongana, Ndakan. *Phenology*. Flower: September. Fruit: January.

Specimens. Harris 878, 1041, 5082; Fangonda 276.

Zanthoxylum sp. A.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Local distribution. Kongana. Phenology.

Flower: December.

Specimens. Harris 5385.

Sapindaceae

Allophylus africanus P.Beauv.

Ref. Fouilloy & Hallé, Fl. Cam., 16: 50. 1973.

Habit. Tree 5 m high.

Habitat. Light gaps and clearings. Distribution. Tropical africa. Local distribution. Kongana, Ndakan (Njeke). Phenology. Flower: April (bud), May. Fruit: May.

Note. The specimens from this area clearly fit the circumscription of form mawambensis by Fouilloy & Hallé (Fl. Cam., 16: 1973) except for the presence of domatia. Although their description indicates no domatia, they are in fact present on Breteler 1689 (K) which they cited under that form. The light coloured undersurface to the leaves, reddish petioles and differences in leaflet size and shape make it very hard, in my opinion, to justify identifying this as conspecific with the savanna species of west and east Africa. In this genus, however, the delimitation of species is notoriously difficult and little can be done until the genus is carefully monographed.

Specimens. *Harris* 424, 613, 785, 4883; *Fangonda* 523.

Allophylus conraui Gilg ex Radlk.

Ref. Fouilloy & Hallé, Fl. Cam. 16: 32. 1973.

Habit. Tree 2 m high.

Habitat. Old fields and light gaps. Distribution. Cameroon. Local distribution. Bayanga, Salcapa. Phenology. Flower: March. Fruit: June.

Note. This species appears to be poorly know, there is only one specimen (Letouzey 13754 from Nguti, Cameroon) labelled as such at Kew. The description by Fouilloy & Hallé (Fl. Cam. 16. 1973) does, however, appear to fit the two specimens collected in the Dzanga-Sangha area. Specimens. Harris 3308, 4815.

Allophylus hamatus Vermoesen ex Hauman

Ref. Fouilloy & Hallé, Fl. Cam. 16: 42. 1973.

Habit. Tree 3 m high.

Habitat. Riparian forest on the Sangha River. *Distribution*. Cameroon and Congo (Kinshasa). *Local distribution*. Ndakan. *Phenology*. Flower: July, September.

Note. Several specimens from Cameroon labelled as *A. africanus* at Kew appear to belong to this species, but with larger leaflets than this specimen. Some specimen labels describe this species as having spines below the leaves and being a liana. It usually occurs by water.

Specimens. *Harris* 849, 1039.

Allophylus sp. A.

Habit. Tree 3 m high.

Habitat. Terra firma forest. Local distribution. Ndakan.

Specimens. Harris 1264.

Allophylus sp. B.

Habit. Tree 5 m high.

Habitat. Terra firma forest. Local distribution. Ndakan.

Specimens. Harris 1268, 1304, 2003.

Blighia unijugata Baker

Ref. Fouilloy & Hallé, Fl. Cam., 16: 186. 1973.

Habit. Tree to 25 m high.

Habitat. Terra firma forest. Distribution. Tropical Africa. Local distribution. Lidjombo, Ndakan.

Specimens. Harris 1279; Fay 8582.

Blighia welwitschii (Hiern) Radlk.

Ref. Fouilloy & Hallé, Fl. Cam. 16: 183. 1973.

Habit. Tree to 30 m.

Habitat. Terra firma forest. Distribution. Sierra Leone to Uganda and Angola. Local distribution. Ndakan, Kongana, Bai Hoku. Phenology. Flower: February, March.

Specimens. Harris 760, 778, 1261, 1780, 1790, 1985, 4042, 4072, 4153, 4448, 5502; Carroll 1533.

Chytranthus gilletii De Wild.

Ref. Hallé, Fl. Cam. 16: 89. 1973.

Habit. Tree 4 m high.

Habitat. Mixed species terra firma forest and Gilbertiodendron dewevrei forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: March, May, April, July,

October. Fruit: May, July.

Specimens. Harris 55, 578, 676, 716, 1447, 3401, 3977, 4539, 4587, 4724, 4958, 5507; Fay 8533.

Chytranthus macrobotrys (Gilg) Exell & Mendonça

Ref. Hallé, Fl. Cam. 16: 111. 1973.

Habit. Tree to 5 m high.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest.

 ${\it Distribution.} \ \, {\it \overline{G}} hana \ \, to \ \, Congo \ \, (Kinshasa) \ \, and \ \, {\it Gabon.} \ \, {\it Local \ distribution.}$

Kongana, Ndakan. Phenology. Flower: January (buds), June, July,

September. Fruit: October.

Note. The description of this species occurring in wet places by Hutchinson & Dalziel (F.W.T.A. 1, 1958) and Hallé (Fl. Cam. 4, 1973) does not seem to apply in this area.

Specimens. Harris 49, 1129, 1370, 3446, 3451, 3948, 3978, 4322; Fay 8424; Gentry 62779.

Chytranthus mortehanii (De Wild.) de Voldere ex Hauman

Ref. Hallé, Fl. Cam. 16: 96. 1973.

Habit. Tree 4 m high.

Habitat. Seasonally flooded forest. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: January.

Specimens. Harris 1759.

Chytranthus setosus Radlk.

Ref. Hallé, Fl. Cam. 16: 106. 1973.

Habit. Tree to 6 m.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: February. Specimens. Harris 1901.

Deinbollia laurentii De Wild.

Ref. Fouilloy & Hallé, Fl. Cam. 16: 65. 1973.

Habit. Tree 4–5 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Congo (Kinshasa) and Cameroon. Local distribution. Ndakan. Phenology. Flower: February, August, December. Fruit: February (immature).

Specimens. Harris 975, 1659, 1771, 1815.

Deinbollia molliuscula Radlk.

Ref. Fouilloy & Hallé, Fl. Cam. 16: 63. 1973.

Habit. Tree to 6 m high.

Habitat. Light gaps. Distribution. Congo (Kinshasa). Local distribution. Lidjombo, Ndakan. Phenology. Flower: February, March.

Note. Apparently the first record outside of Congo (Kinshasa). **Specimens.** *Harris* 1956, 1991, 4771.

Eriocoelum kerstingii Gilg ex Engl. vel sp. aff.

Ref. Keay, 1989: 360.

Habit. Tree 10 m high.

Habitat. Terra firma forest. Local distribution. Kongana.

Specimens. Harris 3400.

Eriocoelum microspermum Gilg ex Radlk.

Ref. Fouilloy & Hallé, Fl. Cam. 16: 174. 1973.

Habit. Shrub to 4 m high.

Habitat. Riparian forest streams. Distribution. Cameroon to Congo (Kinshasa) and Angola. Local distribution. Dzanga, Kongana, Ndakan.

Phenology. Flower: August. Fruit: January (immature), February, September, October, November.

Specimens. Harris 929, 1198, 1233, 1632, 1916, 3583, 4301; Fangonda 504.

Eriocoelum sp. aff. oblongum Keay

Ref. Keay, 1989: 360.

Habit. Tree to 25 m high.

Habitat. Terra firma forest. Local distribution. Kongana, Ndakan.

Phenology. Flower: December. Fruit: June.

Specimens. *Harris* 695, 1262, 1586, 4032, 4367, 5101.

Ganophyllum giganteum (A.Chev.) Hauman

Ref. Fouilloy & Hallé, Fl. Cam. 16: 191. 1973.

Habit. Tree to 30 m high.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Bai Hoku. Phenology. Fruit: August. Specimens. Goldsmith 216; Remis 91-001.

Laccodiscus pseudostipularis Radlk.

Ref. Fouilloy & Hallé, Fl. Cam. 16: 162. 179.

Habit. Tree 10 m high.

Habitat. Light gaps and wet places in forest. Distribution. Cameroon to Congo (Kinshasa) and Gabon. Local distribution. Kongana, Ndakan. Phenology. Flower: May (bud).

Note. The key by Fouilloy & Hallé (Fl. Cam. 16. 1973.) separating this species from *Laccodiscus spinulosodentatus* is, in part, misleading. The isotype at Kew of *L. spinulosodentatus* has leaflets which are up to 7 cm wide. In addition the leaflets of *L. pseudostipulare* are only occasionally "subovate". In addition "sommet obtus" does not clearly describe the leaflets of *L. pseudostipularis* which I have seen: about 90 % of leaflets are missing the terminal portion, but those that are entire have an acute apex.

Specimens. *Harris* 1633, 4684, 4885.

Lecaniodiscus cupanioides Planch.

Ref. Fouilloy & Hallé, Fl. Cam. 16: 143. 1973.

Habit. Tree to 15 m high.

Habitat. Terra firma forest. Distribution. Senegal to Sudan, Uganda and Angola. Local distribution. Kongana, Ndakan. Phenology. Flower: March. Fruit: May.

Specimens. *Harris* 338, 1404, 4657, 4699, 4976.

Lychnodiscus reticulatus Radlk. vel sp. aff.

Ref. Fouilloy & Hallé, Fl. Cam. 16: 168. 1973.

Habit. Tree 3 m high.

Habitat. Riparian forest on the Sangha River. Local distribution. Ndakan. *Phenology*. Fruit: September.

Note. The description by Hutchinson & Dalziel (F.W.T.A. 1. 1958) fits the specimen from this area but the leaflets are much larger and more toothed than the type. This genus is in need of revision especially in the lower guinean and congolian forest block. The names on the specimens at Kew from this area appear to hardly correlate with the characters, and it is impossible to confidently name material.

Specimens. *Harris* 1119.

Majidea fosteri (Sprague) Radlk.

Ref. Fouilloy & Hallé, Fl. Cam. 16: 195. 1973.

Habit. Tree to 30 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Gabon, Sudan and Uganda. Local distribution. Ndakan. Phenology. Flower: March. Fruit: March.

Specimens. Harris 1270, 1984; Gentry 62778.

Pancovia harmsiana Gilg

Ref. Fouilloy & Hallé, Fl. Cam. 16: 116. 1973.

Habit. Tree to 20 m.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon, Congo (Kinshasa). Local distribution. Bai Hoku, Kongana. Phenology. Flower: January, December.

Specimens. Harris 5373, 5576; Carroll 1137, 1139; Remis 392.

Pancovia laurentii (De Wild.) Gilg ex De Wild.

Ref. Fouilloy & Hallé, Fl. Cam. 16: 122. 1973.

Habit. Tree to 25 m high.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon, Congo (Kinshasa). Local distribution. Kongana, Lidjombo, Ndakan, Bai Hoku. Phenology. Flower: February, March.

Specimens. Harris 1302, 1321, 1329, 2031, 3466, 3955, 4463, 4493, 4547, 4568; Fay 8509, 8591; Carroll 1006: Remis 92-006.

Pancovia pedicellaris Radlk. & Gilg

Ref. Fouilloy & Hallé, Fl. Cam. 16: 118. 1973.

Habit. Tree to 8 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Kongana, Bai Hoku, Ndakan.

Phenology. Flower: February (bud), March. Fruit: February(immature).

Note. This genus is in urgent need of revision. Naming this species was very difficult, the published keys are at best rough guides. The material was compared with the type. Verdcourt (unpublished manuscript for Sapindaceae F.T.E.A.) says "the genus is one of great difficulty and no proper account will be possible until correlated, open male and female flowers and fruit are available".

Specimens. Harris 1355, 3349, 3390, 3954, 3961, 3976, 4398, 4489, 4495, 4550, 4645, 4721, 5441; Carroll 1138, 1149.

Paullinia pinnata L.

Ref. Fouilloy & Hallé, Fl. Cam. 16: 13. 1973.

Habit, Liana.

Habitat. Light gaps in terra firma forest and seasonally flooded forest.

Distribution. South America to Madagascar. Local distribution. Ndakan.

Phenology. Flower: March.

Specimens. Harris 296; Fangonda 269.

Placodiscus pynaertii De Wild.

Ref. Hauman, F.C.B. 9: 375. 1960.

Habit. Tree to 5 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Congo(Kinshasa). Local distribution. Ndakan. Phenology. Flower: August,September. Fruit: November.

Note. Appears to be the first record outside Congo (Kinshasa). Specimens. *Harris* 879, 1102, 1510.

Radlkofera calodendron Gilg

Ref. Hallé, Fl. Cam. 16: 79. 1973.

Habit. Unbranched tree to 4 m high.

Habitat. Light gaps in terra firma forest. Distribution. Nigeria, Gabon, Cameroon and Congo (Kinshasa). Local distribution. Kongana, Ndakan.

Phenology. Flower: May (bud), December (old inflorescences).

Specimens. *Harris* 650, 729, 1229, 1301, 1692, 3991, 4681, 4981; *Gentry* 62726.

Zanha golungensis Hiern

Ref. Fouilloy & Hallé, Fl. Cam. 16: 189. 1973.

Habit. Tree to 15 m high.

Habitat. Terra firma forest. Distribution. Senegal to Angola and Congo (Kinshasa). Local distribution. Kongana, Bai Hoku. Phenology. Flower: March.

Specimens. Harris 5489; Remis 92-005.

Sapotaceae

Autranella congolensis (De Wild.) A.Chev.

Ref. Aubréville, Fl. Cam. 2: 39. 1964.

Habit. Tree 40 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Flower: June. Specimens. Harris 52; Fay 8455.

Breviea sericea Aubrév. & Pellegr.

Ref. Pennington, 1991: 212. Synonym. Breviea leptosperma (Baehni) Heine Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Lidjombo, Ndakan. Phenology. Flower: April.

Note. This name "Breviea sericea Aubrév. & Pellegr." is correct despite the suggestion by Aubréville (Fl. Cam. 2. 1964) that Breviea leptosperma (Baehni) Heine must be used for this species. See Pennington (1991) for the complicated nomenclature of this species.

Specimens. *Harris* 503; *Fay* 8421, 8738.

Chrysophyllum beguei Aubrév. & Pellegr.

Ref. Heine, F.W.T.A. 2: 27. 1963. Synonym. Gambeya beguei (Aubrév. & Pellegr.) Aubrév. & Pellegr.

Habit. Tree 30 m high.

Habitat. Mixed species terra firma forest. Distribution. Côte d'Ivoire, Cameroon and Congo (Kinshasa). Local distribution. Lidjombo, Ndkakan. Phenology. Fruit: March.

Specimens. *Harris* 1332, 1999, 4741.

Chrysophyllum boukokoense (Aubrév. & Pellegr.) L.Gaut.

Ref. Gautier, 1997: 27. Synonym. Gambeya boukokoensis Aubrév. & Pellegr.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Bai Hoku, Kongana, Lidjombo, Ndakan. Specimens. Harris 1200, 3447, 3939, 3946, 5106; Fay 8592, 8740; Goldsmith 219.

Chrysophyllum lacourtianum De Wild.

Ref. De Wildeman, 1907: 425. Synonym. Gambeya lacourtiana (De Wild.) Aubrév. & Pellegr.

Habit. Tree 25 m high.

Habitat. Mixed species terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: October. Fruit: June (immature), December.

Specimens. Harris 31, 1382; Fay 8444.

Chrysophyllum perpulchrum Mildbr. ex Hutch. & Dalziel

Ref. Pennington, 1991: 220. Synonym. Gambeya perpulchra (Mildbr. ex Hutch. & Dalziel)
Aubrév.

Habit. Tree 30 m high.

Habitat. Mixed species *terra firma* forest. *Distribution*. Liberia to Uganda and Tanzania. *Local distribution*. Bai Hoku, Ndakan. *Phenology*. Fruit: January, April, March, May, October, December.

Specimens. Harris 32, 101, 248, 329, 348, 448; Fay 8385, 8504; Carroll 1140; Remis 110-95.

Chrysophyllum pruniforme Pierre ex Engl.

Ref. Heine, F.W.T.A. 2: 26. 1963. Synonym. Donella pruniformis (Pierre ex Engl.) Aubrév. & Pellegr.

Habit. Tree 30 m high.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest. Distribution. Sierra Leone to Gabon and Congo (Kinshasa). Local distribution. Bayanga, Ndakan. Phenology. Flower: February. Fruit: January, May.

Specimens. *Harris* 1344, 1822, 4241.

Chrysophyllum ubangiense (De Wild.) D.J.Harris

Ref. Harris, 2000a: 229. Synonyms. Chrysophyllum pentagonocarpum Engl. & K.Krause, Donella ubangiensis (De Wild.) Aubrév.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Fruit: January, May, June.

Specimens. Harris 50, 679; Fay 8469.

Englerophytum oubanguiense (Aubrév. & Pellegr.) Aubrév. & Pellegr.

Ref. Aubréville, Fl. Cam. 2: 74. 1964. Synonym. Tisserantiodoxa oubanguiense Aubrév. & Pellegr.

Habit. Tree 8 m high.

Habitat. Riparian forest. *Distribution*. Cameroon to Congo (Kinshasa). *Local distribution*. Kongana.

Note. The taxonomy of this genus is confusing and some work still remains to be done. I have followed the specific delimitations of Liben (1989) who corrected the mistakes of Heine (F.W.T.A. 2. 1963) but I have followed the generic concepts of Pennington (1991).

Specimens. *Harris* 4312, 4623, 4924, 5027.

Manilkara mabokeensis Aubrév.

Ref. Aubréville, 1964: 373.

Habit. Tree 30 m high.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest. Distribution. Cameroon and Central African Republic. Distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: February, March. Fruit: August, October.

Note. Most of the *Manilkara* species listed by Aubréville (Fl. Cam. 2. 1964) were subsequently reduced by him to subspecies (Aubréville 1971), but he maintained *Manilkara mabokeensis*. The genus is in need of worldwide revision.

Specimens. Harris 299, 932, 1320, 1481, 1789, 1938, 4229, 4248, 4251, 4267, 4324, 4502, 4504, 4510, 5446; Fay 8767; Carroll 1004, 1037, 1099; Goldsmith 208.

Manilkara pellegriniana Tisser. & Sillans

Ref. Aubréville, Fl. Cam. 2: 30. 1964.

Habit. Tree 10 m high.

Habitat. Seasonally flooded forest. *Distribution*. Cameroon and Central African Republic. *Local distribution*. Ndakan.

Specimens. Harris 1843; Thomas 7258.

Mimusops andongensis Hiern

Ref. Heine, F.W.T.A. 2: 20. 1963. Synonym. Mimusops warneckei Engl.

Habit. Tree 5 m high.

Habitat. Riparian forest on the Sangha River. *Distribution*. Guinea-Bissau to Congo (Kinshasa) and Angola. *Local distribution*. Ndakan.

Phenology. Fruit: August, September.

Note. Keay (1989) treated this name as a synonym of *Mimusops warneckei* but this is presumably a mistake as *M. andongensis* Hiern is the older name.

Specimens. Harris 880, 1050.

Omphalocarpum elatum Miers

Ref. Heine, F.W.T.A. 2: 18. 1963.

Habit. Tree 15 m high.

Habitat. Mixed species terra firma and Gilbertiodendron dewevrei forest. Distribution. Sierra Leone to Congo (Kinshasa). Local distribution. Bai

Hoku, Kongana, Ndakan. *Phenology*. Flower: January, May, April, October. Fruit: April, October.

Specimens. Harris 494, 1450, 4346, 5225; Fay 8396; Carroll 1534.

Omphalocarpum pachysteloides Mildbr. ex Hutch. & Dalziel

Ref. Pennington, 1991: 261. Synonym. Ituridendron bequaertii De Wild.

Habit. Tree 15 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Gabon and Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: April. Specimens. Harris 1472.

Omphalocarpum procerum P.Beauv.

Ref. Heine, F.W.T.A. 2: 18. 1963.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Ghana to Congo (Kinshasa).

Local distribution. Kongana, Lidjombo, Ndakan. *Phenology*. Flower: February, October. Fruit: May, October.

Specimens. *Harris* 148, 1399, 1949, 4194; *Fay* 8612.

Pouteria altissima (A.Chev.) Baehni

Ref. Pennington, 1991: 203. *Synonym. Aningeria altissima* (A.Chev.) Aubrév. & Pellegr. *Habit.* Tree 30 m high.

Habitat. Terra firma forest. Distribution. Guinea to Ethiopia. Local distribution. Ndakan. Phenology. Flower: April.Specimens. Harris 505, 1238, 1413, 2002, 2014.

Synsepalum brevipes (Baker) T.D.Penn.

Ref. Pennington, 1991: 248. Synonym. Pachystela brevipes (Baker) Baill. ex Engl. Habit. Tree 10 m high.

Habitat. Seasonally flooded forest. *Distribution*. Tropical Africa, Senegal to Tanzania. *Local distribution*. Lidjombo, Ndakan. *Phenology*. Fruit: October.

Specimens. Harris 1452; Fay 8556.

Synsepalum laurentii (De Wild.) D.J.Harris

Ref. Harris, 1999: 80.

Habit. Shrub.

Habitat. Riparian forest on the Sangha River. Distribution. Congo (Kinshasa) and Central African Republic. Local distribution. Ndakan. Phenology. Flower: April.

Specimens. Harris 568.

Synsepalum longecuneatum De Wild.

Ref. Aubréville, Fl. Cam. 2: 30. 1964.

Habit. Tree 15 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Bai Hoku, Kongana, Lidjombo, Ndakan. Phenology. Flower: January, February (bud), May (bud), December (bud). Fruit: May, August.

Note. This was made a synonym of *Synsepalum stipulatum* by Heine (F.W.T.A. 2. 1963), however until I have seen more material and the types I prefer to follow Aubréville (Fl. Cam. 2. 1964).

Specimens. Harris 48, 774, 903, 3992, 4325, 4400, 4937, 5365, 5532; Fay 8821, 8735B; Gentry 62781; Goldsmith 225.

Synsepalum subcordatum De Wild.

Ref. Pennington, 1991: 249.

Habit. Tree 15 m high.

Habitat. Terra firma mixed forest. Distribution. Central African Republic and Congo (Kinshasa). Local distribution. Kongana.

Note. This appears to be the westernmost record of this species. **Specimens.** *Harris* 3562.

Tridesmostemon omphalocarpoides Engl.

Ref. Aubréville, Fl. Cam. 2: 68. 1964.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa) and Gabon. Local distribution. Bayanga, Lidjombo, Salcapa, Ndakan. Phenology. Flower: January, March. Fruit: January, June, September (immature).

Specimens. Harris 150, 168, 762, 1175, 3307, 4252, 4752, 4783; Fay 8508, 8692.

Scrophulariaceae

Bacopa egensis (Poepp. & Endl.) Pennell

Ref. Hepper, F.W.T.A. 2: 358. 1963.

Habit. Herb.

Habitat. Mud by water. *Distribution*. Central America and Nigeria to Congo (Kinshasa). *Local distribution*. Ndakan. *Phenology*. Flower: September.

Specimens. Harris 521, 1167.

Lindernia senegalensis (Benth.) Skan

Ref. Hepper, F.W.T.A. 2: 364. 1963.

Habit. Herb.

Habitat. Riparian forest. *Local distribution.* Kongana. *Phenology.* Flower: December.

Specimens. Harris 4204, 5384.

Scoparia dulcis L.

Ref. Hepper, F.W.T.A. 2: 356. 1963.

Habit. Herb.

Habitat. Cleared land and old fields. Distribution. Pantropical. Local distribution. Kongana, Ndakan. Phenology. Flower: March.Specimens. Harris 307, 5500.

Torenia thouarsii (Cham. & Schltdl.) Kuntze

Ref. Hepper, F.W.T.A. 2: 363. 1963.

Habit. Herb.

Habitat. Wet sedge meadow. Distribution. Tropical Africa. Local distribution. Dzanga. Phenology. Flower: December.Specimens. Harris 3897.

Scytopetalaceae

Brazzeia congoensis Baill.

Ref. Letouzey, Fl. Cam. 20: 143. 1978.

Habit. Tree 8 m high.

Habitat. Seasonally flooded and riparian forest. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: April. Fruit: October.

Specimens. *Harris* 535, 823, 1501.

Scytopetalum pierreanum (De Wild.) Tiegh.

Ref. Letouzey, Fl. Cam. 20: 191. 1978.

Habit. Tree 15 m high.

Habitat. Riparian forest on the Sangha River. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: February. Fruit: November.

Specimens. Harris 1532, 1578, 1772, 1844, 1845.

Simaroubaceae

Hannoa klaineana Pierre & Engl.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 691. 1958.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Guinea to Congo (Kinshasa) and Angola. Local distribution. Kongana, Lidjombo, Ndakan. Phenology.

Flower: January. Fruit: August.

Specimens. *Harris* 994, 3387, 5398; *Fay* 8586.

Solanaceae

Solanum anomalum Thonn.

Ref. Heine, F.W.T.A. 2: 334. 1963.

Habit. Shrub 2 m high.

Habitat. Terra firma forest. Distribution. Liberia to Congo (Kinshasa). Local distribution. Bayanga. Phenology. Flower: March.

Specimens. Harris 5523.

Solanum dasyphyllum Schumach. & Thonn.

Ref. Heine, F.W.T.A. 2: 334. 1963.

Habit. Herb 60 cm high.

Habitat. Seasonally flooded clearing in forest. *Distribution*. Tropical Africa. *Local distribution*. Mambele. *Phenology*. Flower: June. Fruit: June.

Specimens. Harris 836.

Solanum terminale Forssk.

Ref. Heine, F.W.T.A. 2: 331. 1963.

Habit. Liana 3 m high.

Habitat. Terra firma and riparian forest. Distribution. Guinea to Ethiopia and Arabia. Local distribution. Kongana, Lidjombo, Ndakan.

Phenology. Flower: January, March, November. Fruit: January, March, May.

Specimens. Harris 341, 1557, 1966, 4987, 5399, 4765A.

Solanum sp. A.

Habit. Herb 2 m high.

Habitat. Forest camp. Local distribution. Kongana. Phenology. Fruit: January.

Note. This may be cultivated.

Specimens. Harris 4310.

Sterculiaceae

Cola acuminata (Vent.) Schott & Endl.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 329. 1958.

Habit. Tree 15 m high.

Habitat. Terra firma forest. Distribution. Togo to Congo (Kinshasa). Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower:

February, May, August, October. Fruit: June.

Specimens. Harris 1496.

Cola altissima Engl. vel sp. aff.

Ref. Hallé, Fl. Gabon 2: 63. 1961.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: February. Fruit: May.

Note. The description by Hallé (Fl. Gabon 2. 1961) fits this material but that by Germain (F.C.R.B. 10. 1963) does not. The few specimens from Congo (Kinshasa) at Kew appear different from those from Cameroon. The material from this area is closer to the specimens from Congo (Kinshasa).

Specimens. Harris 1950; Fay 8392.

Cola ballayi Cornu ex Heckel

Ref. Hallé, Fl. Gabon 2: 46. 1961.

Habit. Tree 15 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Ndakan.

Specimens. Harris 1932.

Cola chlamydantha K.Schum.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 328. 1958.

Habit. Tree 10 m high.

Habitat. Riparian and swamp forest, occasionally in terra firma forest.Distribution. Sierra Leone to Central African Republic. Local distribution. Kongana, Lidjombo, Ndakan. Phenology. Flower: May,

April, August.

Specimens. *Harris* 533, 934, 4915, 4947; *Fay* 8859.

Cola gigantea A.Chev.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 330. 1958.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Sudan and Uganda. Local distribution. Ndakan. Phenology. Flower: November. Specimens. Harris 1225, 1589.

Cola lateritia K.Schum.

Ref. Hallé, Fl. Gabon 2: 47. 1961.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Guinea to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: January, February, March.

Specimens. Harris 138, 352, 1252, 1778, 3491, 5565; Carroll 1119.

Cola urceolata K.Schum.

Ref. Hallé, Fl. Gabon 2: 54. 1961.

Habit. Shrub.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa).

Local distribution. Bayanga, Kongana, Lidjombo, Salcapa, Ndakan.

Phenology. Flower: January, February, March. Fruit: May (immature), June, July, August, September.

Specimens. Harris 214, 976, 1199, 1757, 3455, 4759, 4770, 4814; Fay 8420.

Leptonychia sp. A.

Habit. Tree 4 m high.

Habitat. Riparian and *terra firma* forest. *Local distribution*. Kongana.

Phenology. Flower: May.

Specimens. Harris 4919.

Leptonychia sp. B.

Habit. Tree 4 m high.

Habitat. Riparian and terra firma forest. Local distribution. Bayanga.

Phenology. Flower: January.

Specimens. Harris 4286.

Melochia melissifolia Benth.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 318. 1958.

Habit. Herb.

Habitat. Seasonally flooded sedge meadow. Distribution. Tropical Africa and Tropical America. Local distribution. Ndakan. Phenology. Flower: April, November.

Specimens, Harris 422, 1523.

Nesogordonia papaverifera (A.Chev.) Capuron

Ref. Hallé, Fl. Gabon 2: 135. 1961.

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo

(Brazzaville). Local distribution. Bai Hoku, Salcapa, Ndakan.

Phenology. Flower: February, March, April, May. Fruit: May, July.

Specimens. Harris 321, 331, 365, 440, 442, 540, 783, 843, 1666, 4803; Fay 8494; Carroll 1143; Gentry 62668A.

Pterygota bequaertii De Wild.

Ref. Hallé, Fl. Gabon 2: 24. 1961.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: May, September.

Specimens. Harris 1174; Fay 8411.

Sterculia dawei Sprague

Ref. Exell & Mendonca, Consp. Fl. Ang. 1: 203. 1951.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon, and Angola to Uganda. Local distribution. Lidjombo.

Note. Cheek (manuscript for F.T.E.A., Sterculiaceae) has pointed out *Sterculia bequaertii* should be treated as a synonym of this species. Specimens. *Fay* 8772.

Sterculia oblonga Mast.

Ref. Hallé, Fl. Gabon 2: 321. 1961.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Ndakan, Lidjombo. Phenology. Flower: September.

Specimens. Harris 1133, 1392; Fay 8725, 8762; Gentry 62769.

Sterculia tragacantha Lindl.

Ref. Hallé, Fl. Gabon 2: 13. 1961.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Gambia to Sudan and Angola.

Local distribution. Kongana, Lidjombo, Ndakan. Phenology. Flower:

March. Fruit: January.

Specimens. *Harris* 1217, 1739, 4842; *Fay* 8715.

Triplochiton scleroxylon K.Schum.

Ref. Hallé, Fl. Gabon 2: 111. 1961.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Distribution. Guinea to Congo (Kinshasa). Local distribution. Ndakan.

Specimens. Harris 1412.

Thymelaeaceae

Dicranolepis buchholzii Engl. & Gilg

Ref. Aymonin, Fl. Cam. 5: 30. 1966.

Habit. Tree 1.5 m high.

Habitat. Gilbertiodendron dewevrei forest and occasionally in mixed species terra firma forest. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: January, August. Fruit: December.

Specimens. *Harris* 1027, 4084, 4173, 4316, 4326, 4347.

Dicranolepis pulcherrima Gilg

Ref. Aymonin, Fl. Cam. 5: 15. 1966.

Habit. Tree 3 m high.

Habitat. Riparian forest. *Distribution*. Cameroon to Congo (Kinshasa) and Gabon. *Local distribution*. Dzanga, Bai Hoku, Kongana, Ndakan.

Phenology. Flower: February, October. Fruit: January, February, November. December.

Specimens. Harris 1490, 1634, 1873, 3515, 3910, 4309, 4484, 4702; Carroll 57.

Octolepis decalepis Gilg

Ref. Avmonin, Fl. Cam. 5: 78, 1966.

Habit. Tree 3 m high.

Habitat. Riparian forest. Distribution. Liberia to Congo (Kinshasa). Local distribution. Kongana. Phenology. Flower: May.

Specimens. Harris 4990.

Tiliaceae

Ancistrocarpus bequaertii De Wild. vel sp. aff.

Ref. Wilczek, F.C.R.B. 10: 74. 1963.

Habit. Liana 5 m high.

Habitat. Seasonally flooded forest. Distribution. Congo (Kinshasa). Local distribution. Ndakan.

Specimens. Gentry 62585.

Christiana africana DC.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 301. 1958.

Habit. Tree 15 m high.

Habitat. Riparian and seasonally flooded forest. Distribution. Eastern tropical America, Senegal to Sudan and Angola. Local distribution. Ndakan. Phenology. Fruit: January, October.

Specimens. *Harris* 128, 887, 1502.

Clappertonia ficifolia (Willd.) Decne.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 310. 1958.

Habit. Shrub 3 m high.

Habitat. Seasonally flooded sedge meadow. Distribution. Tropical Africa.Local distribution. Njeke. Phenology. Flower: April. Fruit: April.Specimens. Harris 511.

Desplatsia chrysochlamys (Mildbr. & Burret) Mildbr. & Burret

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 307. 1958.

Habit. Tree 5 m high.

Habitat. Light gaps in terra firma forest, seasonally flooded clearings in forest and cleared land. Distribution. Sierra Leone to Uganda. Local distribution. Kongana, Ndakan. Phenology. Flower: May (bud). Fruit: May (immature), September (immature).

Note. Some specimens from this area, for example Wraber LJU 49481 (K) have expanded inflorescences and flowers with obvious pedicels and no involucral bracts. That specimen is very similar to Mildbraed 8831 (K) from Dengdeng (Cameroon) which is one of the two syntypes of Desplatsia floribunda (Burret 1926). However, since the vegetative characters fit those of D. chrysochlamys and there is some variation in the degree of inflorescence expansion, I have tentatively identified them all as D. chrysochlamys. Further careful collection of mature inflorescence is required to confirm my view that D. floribunda should be treated as a synonym of D. chrysochlamys.

Specimens. Harris 680, 1163, 1388, 4433, 4908, 4977, 5402.

Desplatsia dewevrei (De Wild. & T.Durand) Burret

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 307. 1958.

Habit. Tree 10 m high.

Habitat. Terra firma and seasonally flooded forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: February, March, September. Fruit: January.

Specimens. Harris 1036, 4368, 4395, 5496; Fay 8402, 8414; Carroll 1567; Gentry 62581, 62606.

Desplatsia mildbraedii Burret

Ref. Wilczek, F.C.R.B. 10: 44, 1963.

Habit. Tree 25 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Uganda. Local distribution. Bai Hoku, Kongana. Phenology. Flower: January, February, March. Fruit: December.

Specimens. Harris 4005, 4397, 5408; Carroll 1072, 1084, 1092.

Desplatsia subericarpa Bocq.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 307. 1958.

Habit. Tree 2 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: March. Specimens. Harris 1387, 1976.

Duboscia macrocarpa Bocq. vel sp. aff.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 305. 1958.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology.

Flower: June, March. Fruit: June.

Specimens. Harris 829, 4333, 5093, 5488, 5529, 5575; Goldsmith 207.

Duboscia viridiflora (K.Schum.) Mildbr. vel sp. aff.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 305. 1958.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Local distribution. Bai Hoku, Lidjombo, Kongana, Ndakan. Phenology. Flower: March, April, May, July. Fruit: July. September, October, December.

Note. Keay & al. (1960) and Keay (1989) treated this name as a synonym of *Duboscia macrocarpa*. The key by Hutchinson & Dalziel (F.W.T.A. 1. 1958) to separate these two species is unworkable in both the field and the herbarium, and most of the determinations made on specimens at Kew and Paris treat this as a monospecific genus. I believe, however, that there are two different species in this area.

Specimens. Harris 30, 730, 846, 848, 1176, 1540, 4960; Fay 8548, 8723; Fangonda 506; Carroll 1087; Remis 112-95

Glyphaea brevis (Spreng.) Monach.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 308, 1958.

Habit. Tree to 15 m.

Habitat. Light gaps in terra firma forest and riparian forest. Distribution.

Tropical Africa. Local distribution. Bayanga, Ndakan. Phenology.

Flower: April, May. Fruit: March, October.

Specimens. Harris 295, 524, 924, 1250, 1331; Fay 8403; Gentry 62617.

Grewia barombiensis K.Schum.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 303. 1958.

Habit. Liana.

Habitat. Light gaps in terra firma forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: August.

Fruit: March.

Specimens. Harris 366, 868.

Grewia brunnea K.Schum.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 303. 1958.

Habit. Liana 10 m high.

Habitat. Seasonally flooded forest. Distribution. Liberia to Central African Republic. Local distribution. Ndakan. Phenology. Fruit: November.Specimens. Harris 1606.

Grewia malacocarpoides De Wild.

Ref. Wilczek, F.C.R.B. 10: 15. 1963.

Habit. Liana.

Habitat. Riparian forest. Distribution. Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: February, May.

Fruit: September. Specimens. *Harris* 611, 1044, 4705.

Grewia oligoneura Sprague

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 303. 1958.

Habit. Tree to 20 m high.

Habitat. Terra firma and seasonally flooded forest. Distribution. Nigeria to Sudan and Congo (Kinshasa). Local distribution. Kongana, Ndakan.

Phenology. Flower: April, December. Fruit: May.

Specimens. Harris 1386, 1701, 3979, 4952; Fay 8879; Fangonda 278, 521.

Grewia pinnatifida Mast. vel sp. aff.

Ref. Wilczek, F.C.R.B. 10: 10. 1963.

Habit. Tree to 4 m high.

Habitat. Gilbertiodendron dewevrei forest. Local distribution. Ndakan.

Phenology. Flower: August, September. Fruit: January, February, October, November.

Specimens. *Harris* 136, 224, 548, 1002, 1092, 1484, 1595, 1604.

Grewia seretii De Wild.

Ref. Wilczek, F.C.R.B. 10: 17. 1963.

Habit. Liana 3 m high.

Habitat. Light gaps in terra firma forest and riparian forest. Distribution.

Cameroon to Congo (Kinshasa). *Local distribution*. Ndakan. *Phenology*. Flower: May, July. Fruit: July.

Specimens. Harris 689, 857.

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Triumfetta cordifolia A.Rich.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 310. 1958.

Habit. Shrub 2 m high.

Habitat. Cleared land and seasonally flooded sedge meadow. Distribution.

Tropical Africa. Local distribution. Kongana, Njeke, Ndakan.

Phenology. Flower: November. Fruit: December.

Specimens. *Harris* 1587, 1647, 5355.

Triumfetta rhomboidea Jacq.

Ref. Hutchinson & Dalziel, F.W.T.A. 1: 309. 1958.

Habit. Shrub 1.5 m high.

Habitat. Cleared ground. Distribution. Pantropical. Local distribution.

Kongana. Phenology. Flower: November.

Specimens. Harris 5354.

Ulmaceae

Celtis adolfi-friderici Engl.

Ref. Letouzey, Fl. Cam. 8: 23. 1968.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Sudan and

Congo (Kinshasa). Local distribution. Lidjombo, Ndakan. Phenology.

Flower: February.

Specimens. Harris 328, 1671, 1851; Fay 8834.

Celtis mildbraedii Engl.

Ref. Letouzey, Fl. Cam. 8: 33. 1968.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Kenya, South Africa and Madagascar. Local distribution. Dzanga, Bai Hoku,

Kongana, Lidjombo, Ndakan. *Phenology*. Flower: October, November.

Specimens. Harris 1668, 1935, 1965, 3558, 3971, 4247, 5347; Fay 8475, 8571; Carroll 1590; Gentry 62682.

Celtis tessmannii Rendle

Ref. Letouzey, Fl. Cam. 8: 44. 1968.

Habit. Tree 35 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa) and Gabon. Local distribution. Bai Hoku, Kongana, Lidjombo, Ndakan. Phenology. Flower: March.

Specimens. Harris 1590, 1958, 4020, 5567; Fay 8763, 8833, 8876; Carroll 1129; Gentry 62710.

Celtis zenkeri Engl.

Ref. Letouzey, Fl. Cam. 8: 19. 1968.

Habit. Tree 25 m high.

Habitat. Terra firma forest and cleared land. Distribution. Guinea to Sudan, Tanzania and Angola. Local distribution. Ndakan, Lidjombo.

Specimens. Harris 1964, 4263.

Chaetachme aristata Planch.

Ref. Letouzey, Fl. Cam. 8: 19. 1968.

Habit. Shrub 3 m high.

Habitat. Roadside vegetation. Distribution. Tropical Africa and Madagascar. Local distribution. Salcapa.

Specimens. Harris 5478.

Holoptelea grandis (Hutch.) Mildbr.

Ref. Letouzey, Fl. Cam. 8: 62. 1968.

Habit. Tree 40 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Sudan and Uganda. Local distribution. Ndakan. Phenology. Fruit: February. Specimens. Harris 1952; Fay 8655.

Trema orientalis (L.) Blume

Ref. Letouzey, Fl. Cam. 8: 48. 1968.

Habit. Tree 10 m high.

Habitat. Roadside vegetation. Distribution. Tropical Africa, Arabia and Madagascar. Local distribution. Lidjombo. Phenology. Flower:

November.

Specimens. Fay 8750.

Urticaceae

Boehmeria macrophylla Hornem.

Ref. Friis, F.T.E.A. (Urticaceae): 44. 1989.

Habit. Herb sometimes woody below.

Habitat. By water. Distribution. Tropical Africa to SE China. Local distribution. Ndakan. Phenology. Flower: January. Fruit: May. Specimens. Harris 195, 668.

Laportea ovalifolia (Schumach. & Thonn.) Chew

Ref. Letouzey, Fl. Cam. 8: 131. 1968.

Habit. Creeping herb.

Habitat. Roads in forest and secondary forest. Distribution. Tropical Africa. Local distribution. Salcapa, Ndakan. Phenology. Flower: March, October.

Specimens. Harris 1448, 4862.

Urera repens (Wedd.) Rendle

Ref. Letouzey, Fl. Cam. 8: 104. 1968.

Habit. Creeping herb.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa) and Gabon. Local distribution. Kongana, Ndakan. Phenology. Flower: May. Fruit: June.

Specimens. *Harris* 15, 699, 5129.

Urera thonneri De Wild. & T.Durand vel sp. aff.

Ref. Letouzey, Fl. Cam. 8: 81. 1968.

Habit. Liana.

Habitat. Gilbertiodendron dewevrei forest and seasonally flooded forest. Local distribution. Kongana, Ndakan. Phenology. Flower: January, June, July, December. Fruit: January.

Specimens. *Harris* 1726, 3882, 4197, 4314, 5110; *Fay* 8542.

Urera trinervis (Hochst.) Friis & Immelman

Ref. Friss, F.T.E.A. (Urticaceae): 6. 1989.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Ghana to Ethiopia. Local distribution. Kongana, Ndakan. Phenology. Fruit: May.Specimens. Harris 612, 661, 4957.

Urera sp. A.

Habit. Liana.

Habitat. Forest. *Local distribution*. Ndakan. *Phenology*. Fruit: August. **Specimens**. *Harris* 912, 925, 956, 1011.

Urera sp. B.

Habit. Liana.

Habitat. Terra firma forest. Local distribution. Ndakan. Phenology. Fruit: January, December.

Specimens. Harris 23, 100.

Urera sp. C.

Habit. Liana.

Habitat. Riparian forest. *Local distribution*. Ndakan. *Phenology*. Fruit: April.

Specimes. Harris 470.

Verbenaceae

Clerodendrum capitatum (Willd.) Schumach. & Thonn.

Ref. Verdcourt, F.T.E.A. (Verbenaceae): 103. 1992.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Senegal to Kenya, Tanzania, Zambia and Angola. Local distribution. Bai Hoku, Kongana, Ndakan.

Phenology. Flower: October, December. Fruit: December.

Specimens. *Harris* 1471, 3927, 4175; *Carroll* 1517.

Clerodendrum grandifolium Gürke

Ref. Thomas, 1936: 63.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: April, May. Specimens. Harris 543, 618, 4909; Fangonda 511.

Clerodendrum melanocrater Gürke

Ref. Verdcourt, F.T.E.A. (Verbenaceae): 113. 1992.

Habit. Liana 1.5 m high.

Habitat. Riparian forest. Distribution. Cameroon to Kenya and Tanzania.Local distribution. Dzanga. Phenology. Fruit: October.Specimens. Harris 3547.

Clerodendrum poggei Gürke

Ref. Verdcourt, F.T.E.A. (Verbenaceae): 100. 1992.

Habit. Shrub 3 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Ethiopia and Angola. Local distribution. Ndakan. Phenology. Flower: October. Specimens. Harris 1316.

Clerodendrum schweinfurthii Gürke

Ref. Verdcourt, F.T.E.A. (Verbenaceae): 112. 1992.

Habit. Liana.

Habitat. Riparian forest. Distribution. Sierra Leone to Sudan, Tanzania and Angola. Local distribution. Kongana, Ndakan. Phenology. Flower:

January, February, August, December. Fruit: January, February. **Specimens.** *Harris* 65, 891, 946, 1887, 4202, 5412, 5427, 5444.

Clerodendrum splendens G.Don

Ref. Huber, F.W.T.A. 2: 444, 1963.

Habit, Liana.

Habitat. Light gaps and roadsides in terra firma forest. Distribution.

Senegal to Congo (Kinshasa) and Angola. *Local distribution*. Bai Hoku, Kongana, Salcapa, Ndakan, Mambele. *Phenology*. Flower: January,

February. Fruit: March (immature).

Specimens. Harris 1878, 1902, 4819, 5411; Carroll 1017.

Clerodendrum umbellatum Poir.

Ref. Verdcourt, F.T.E.A. (Verbenaceae): 97. 1992.

Habit. Liana. Old fields.

Habitat. Distribution. Senegal to Congo (Kinshasa), Ethiopia and Tanzania.

Local distribution. Bayanga, Lidjombo, Nyangoute, Ndakan.

Phenology. Flower: February. Fruit: March.

Specimens. Harris 273, 1849; Wraber LJU 49490, 49512.

Clerodendrum volubile P.Beauv.

Ref. Verdcourt, F.T.E.A. (Verbenaceae): 115. 1992.

Habit. Shrub 1 m high.

Habitat. Old fields. Distribution. Senegal to Tanzania and Angola. Local distribution. Bayanga. Phenology. Flower: January.

Specimens. Harris 4282.

Clerodendrum welwitschii Gürke

Ref. Huber, F.W.T.A. 2: 443. 1963.

Habit. Liana 5 m high.

Habitat. Terra firma forest and roadside vegetation. Distribution. Nigeria to Angola. Local distribution. Kongana. Phenology. Fruit: February. Specimens. Harris 4561, 4696, 4717, 4983, 5457.

Clerodendrum yaundense Gürke

Ref. Gürke, 1900: 297.

Habit. Shrub or liana.

Habitat. Old fields and roadside vegetation. Distribution. Cameroon. Local distribution. Kongana, Bayanga. Phenology. Flower: May, June. Fruit: May, June.

Specimens. *Harris* 3311, 3347, 4951.

Clerodendrum sp. A.

Habit. Shrub 1 m high.

Habitat. Old fields. Local distribution. Bayanga. Phenology. Flower: October.

Specimens. Harris 3511.

Clerodendrum sp. B.

Habit. Liana.

Habitat. Terra firma forest. Local distribution. Kongana, Ndakan.

Phenology. Flower: May (bud), July, August, October.

Specimens. *Harris* 871, 1032, 3434, 4419, 5008.

Premna angolensis Gürke

Ref. Hepper, F.W.T.A. 2: 438. 1963.

Habit. Tree.

Habitat. Terra firma forest. Distribution. Tropical Africa. Local distribution. Lidjombo, Ndakan. Phenology. Flower: August.

Specimens. *Harris* 923; *Fay* 8693; *Gentry* 62728.

Stachytarpheta cayennensis (Rich.) Vahl

Ref. Hepper, F.W.T.A. 2: 434. 1963.

Habit. Herb, subwoody below.

Habitat. Cleared ground. Distribution. Tropical America, widely

naturalised in Africa. Local distribution. Bayanga, Kongana. Phenology.

Flower: November.

Specimens. Harris 5338.

Vitex congolensis De Wild. & T.Durand vel sp. aff.

Ref. Pieper, 1928: 59.

Habit. Tree 2 m high.

Habitat. Savanna. Local distribution. Yobe savanna, Lidjombo. Phenology.

Fruit: July.

Specimens. Harris 3342; Fay 8773.

Vitex doniana Sweet

Ref. Huber, F.W.T.A. 2: 446. 1963.

Habit. Tree 15 m high.

Habitat. Riparian forest and old fields. Distribution. Tropical Africa. Local distribution. Ndakan. Phenology. Flower: March. Fruit: June.

Specimens. Harris 826, 2036.

Vitex madiensis Oliv. vel sp. aff.

Ref. Huber, F.W.T.A. 2: 447. 1963.

Habit. Shrub 2 m high.

Habitat. Savanna. Distribution. Senegal to Mozambique, Angola and Zambia. Local distribution. Yobe savanna. Phenology. Fruit: July.

Specimens. Harris 3339.

Vitex thyrsiflora Baker

Ref. Huber, F.W.T.A. 2: 446. 1963.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Guinea to Congo (Kinshasa).

Local distribution. Kongana, Ndakan. Phenology. Flower: June. Fruit: September.

Specimens. Harris 1177, 4015, 5064; Fay 8423.

Vitex welwitschii Gürke vel sp. aff.

Ref. Pieper, 1928: 69.

Habit. Tree 20 m high.

Habitat. Terra firma forest. Distribution. Angola to Congo (Kinshasa).

Local distribution. Bai Hoku, Lidjombo, Ndakan. *Phenology*. Flower: March. Fruit: November.

Specimens. Harris 351, 354, 5549, 5558; Fay 8745; Carroll 1102; Goldsmith 203; Remis 106-95.

Violaceae

Note. All the species of *Rinorea* from this area were identified using the key by Bos (1989) and were checked by discussion with Achoundong, author of a revision in progress.

Rinorea brachypetala (Turcz.) Kuntze

Ref. Taton, F.C.R.B. (Violaceae): 53. 1969.

Habit. Tree 4 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Sudan, Kenya and Zimbabwe. Local distribution. Dzanga, Salcapa, Ndakan.

Phenology. Flower: February. Fruit: March (immature), October.

Specimens. *Harris* 208, 210, 1853, 1905, 3545, 3574, 3575, 3576, 4825.

Rinorea cerasifolia M.Brandt

Ref. Taton, F.C.R.B. (Violaceae): 32. 1969.

Habit. Shrub 1.5 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Bai Hoku, Bayanga, Ndakan. Phenology. Flower: February. Fruit: February.

Specimens. Harris 90, 1763, 1852, 1866, 3350, 3425, 3923, 4355; Fay 8523; Carroll 1064.

Rinorea dentata (P.Beauv.) Kuntze

Ref. Taton, F.C.R.B. (Violaceae): 32. 1969.

Habit. Tree 4 m high.

Habitat. Terra firma forest. Distribution. Liberia to Uganda, Tanzania.Local distribution. Dzanga, Salcapa, Ndakan. Phenology. Flower:March.

Note. This is the rarest species of *Rinorea* in this area. Specimens. *Harris* 405, 3566, 4742, 5471.

Rinorea ilicifolia (Welw. ex Oliv.) Kuntze

Ref. Taton, F.C.R.B. (Violaceae): 9. 1969.

Habit. Shrub 1 m high.

Habitat. Terra firma forest, including Gilbertiodendron dewevrei forest.

Distribution. Guinea to Madagascar and Comoros. Local distribution.

Dzanga, Bai Hoku, Kongana, Ndakan. *Phenology*. Flower: January, April, July. Fruit: February.

Specimens. Harris 76, 215, 228, 534, 1855, 3541, 4610; Fay 8452, 8534; Fangonda 264; Carroll 1510, 1524.

Rinorea oblongifolia (C.H.Wright) Marquand ex Chipp

Ref. Taton, F.C.R.B. (Violaceae): 27. 1969.

Habit. Tree 4 m high.

Habitat. Terra firma and riparian forest. Distribution. Guinea to Sudan and Uganda. Local distribution. Dzanga, Bai Hoku, Bayanga, Kongana, Ndakan. Phenology. Flower: February, May, June. Fruit: February, June.

Specimens. Harris 1934, 3352, 3457, 3532, 4000, 4620, 4653, 4881, 5072, 5209; Carroll 1051.

Rinorea subsessilis M.Brandt

Ref. Taton, F.C.R.B. (Violaceae): 63. 1969.

Habit. Tree 3 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa).Local distribution. Dzanga, Bai Hoku, Kongana, Salcapa, Ndakan,Mondika. Phenology. Flower: January, February, March, May, October December. Fruit: May, June.

Specimens. Harris 67, 74, 1690, 1978, 3348, 3403, 3431, 3513, 3535, 3956, 4002, 4003, 4016, 4503, 4643, 4827, 5000, 5006; Carroll 1000.

Rinorea welwitschii (Oliv.) Kuntze

Ref. Taton, F.C.R.B. (Violaceae): 59. 1969.

Habit. Tree 5 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Angola and Zambia. Local distribution. Dzanga, Bai Hoku, Kongana, Ndakan. Phenology. Flower: January, February, March, July. Fruit: January, February, March.

Specimens. *Harris* 343, 3404, 3430, 3432, 3487, 3488, 3489, 3520, 3560, 3561, 3573, 4001, 4017, 4018, 4060, 4073, 4081, 4097, 4134, 4146, 4186, 4270, 4271, 4272, 4278, 4443, 4444, 4479, 4499, 4507, 4512, 4522, 4529, 4549, 4563, 4579, 4581, 4624, 4648, 4676, 4726, 5007, 5416, 5514; *Carroll* 1009, 1122, 1132.

Viscaceae

Viscum congolense De Wild.

Ref. Polhill & Wiens, 1998: 283.

Habit. Semi-parasite.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Ruanda and Burundi. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology.

Flower: February, July, October.

Specimens. Harris 203, 4553; Fay 8507; Carroll 1518.

Vitaceae

Cayratia debilis (Baker) Suess.

Ref. Descoings, Fl. Cam. 13: 22. 1972.

Habit. Liana.

Habitat. Light gap in terra firma forest. Distribution. Côte d'Ivoire to Uganda and Angola. Local distribution. Ndakan. Phenology. Fruit: July. Specimens. Fay 8519.

Cissus aralioides (Welw. ex Baker) Planch.

Ref. Descoings, Fl. Cam. 13: 88. 1972.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Guinea to Mozambique. Local distribution. Lidjombo. Phenology. Flower: November. Specimens. Fay 8889.

Cissus barteri (Baker) Planch.

Ref. Descoings, Fl. Cam. 13: 134. 1972.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Dzanga, Kongana, Ndakan. Phenology. Flower: June, December. Fruit: January, March, September, October.

Specimens. *Harris* 1073, 3578, 4052, 4358, 4848, 5054.

Cissus diffusiflora (Baker) Planch.

Ref. Descoings, Fl. Cam. 13: 122. 1972.

Habit Liana

Habitat. Terra firma forest. Distribution. Guinea Bissau to Uganda. Local distribution. Kongana, Ndakan. Phenology. Flower: May, June. Fruit: May, July, October.

Specimens. *Harris* 840, 4917, 5051; *Carroll* 1499.

Cissus dinklagei Gilg & M.Brandt

Ref. Descoings, Fl. Cam. 13: 114. 1972.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Cameroon to Angola and Congo (Kinshasa). Local distribution. Bai Hoku, Kongana, Ndakan.

Phenology. Flower: January. Fruit: February, March, June.

Specimens. *Harris* 1468, 1687, 2001, 3375, 3481, 3932, 4300; *Fay* 8415; *Carroll* 1025.

Cissus leonardii Dewit

Ref. Descoings, Fl. Cam. 13: 116. 1972.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa).

Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower:

January, February, August. Fruit: January, March, August, October.

Specimens. Harris 85, 247, 283, 1020, 1754, 4299, 4464; Fangonda 277; Carroll 1501.

Cissus planchoniana Gilg

Ref. Descoings, Fl. Cam. 13: 120. 1972.

Habit. Liana.

Habitat. Roadside vegetation. Distribution. Cameroon to Tanzania. Local distribution. Bayanga. Phenology. Flower: January. Fruit: January. Specimens. Harris 4233.

Cissus smithiana (Baker) Planch.

Ref. Descoings, Fl. Cam. 13: 94. 1972.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Kongana.

Specimens. Harris 4695.

Cyphostemma adenopodum (Sprague) Desc.

Ref. Descoings, Fl. Cam. 13: 46. 1972.

Habit. Liana.

Habitat. Roadside vegetation. Distribution. Côte d'Ivoire to Uganda and Angola. Local distribution. Kongana. Phenology. Flower: May. Fruit: June.

Specimens. Harris 4965, 5055.

Angiospermae-Monocotyledones

Agavaceae

Dracaena arborea (Willd.) Link

Ref. Bos, 1984: 25.

Habit. Tree 30 m high.

Habitat. Terra firma forest. Distribution. Guinea to Congo (Kinshasa) and Angola. Local distribution. Bai Hoku, Lidjombo. Phenology. Flower: February.

Specimens. Fay 8765; Carroll 1022, 1067.

Dracaena camerooniana Baker

Ref. Bos, 1984: 45.

Habit. Shrub 1 m high.

Habitat. Gilbertiodendron dewevrei forest beside streams. Distribution.

Guinea to Uganda and Tanzania. *Local distribution*. Kongana, Ndakan. *Phenology*. Fruit: September.

Specimens. *Harris* 1131, 4085.

Dracaena congoensis Hua

Ref. Bos, 1984: 60.

Habit. Shrub 3 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Congo (Kinshasa). Local distribution. Kongana. Phenology. Flower: February.Specimens. Harris 4382A.

Alismataceae

Ranalisma humile (Kunth) Hutch.

Ref. Hepper, F.W.T.A. 3: 9. 1968.

Habit. Herb.

Habitat. Shallow streams. *Distribution*. Senegal to Sudan, Tanzania and Zambia. *Local distribution*. Kongana. *Phenology*. Flower: February, December.

Specimens. Harris 4182, 4732.

Amaryllidaceae

Crinum jagus (J.Thomps.) Dandy *Ref.* Nordal, Fl. Cam. 30: 18. 1987.

Habit. Herb.

Habitat. Seasonally flooded sedge meadow. Distribution. Guinea to Uganda and Angola. Local distribution. Njeke. Phenology. Flower: May.

Specimens. Harris 652.

Anthericaceae

Chlorophytum filipendulum Baker

Ref. Baker, F.T.A. 7: 499. 1898.

Habit. Herb.

Habitat. Terra firma forest. Local distribution. Kongana, Salcapa, Ndakan.Phenology. Flower: March, September. Fruit: February, September.Specimens. Harris 1137, 4595, 4843.

Araceae

Amorphophallus sp. A.

Habit. Herb.

Habitat. Terra firma forest. Local distribution. Ndakan. Phenology. Leaf: December.

Specimens, Harris 1714.

Anchomanes difformis (Blume) Engl.

Ref. Ntépé-Nyame, Fl. Cam. 31: 23. 1988.

Habit. Herb 2 m high.

Habitat. Terra firma forest. Distribution. Senegal to Sudan and Congo (Kinshasa). Local distribution. Bayanga, Ndakan. Phenology. Leaf: April, June, October.

Specimens. Harris 1377; Fay 8467.

Anubias sp. A.

Habit. Herb.

Habitat. Mud by stream. *Local distribution*. Ndakan. *Phenology*. Flower: Sept.

Specimens. Harris 1187.

Cercestis congoensis Engl.

Ref. Ntépé-Nyame, Fl. Cam. 31: 70. 1988.

Habit. Herb.

Habitat. Terra firma forest. Distribution. Cameroon, Gabon, Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: January. Fruit: July.

Specimens. Harris 58; Fay 8547.

Cercestis mirabilis (N.E.Br.) Bogner

Ref. Bogner, 1985: 73. Synonym. Rhektophylum mirabile N.E.Br.

Habit. Climber 3 m high.

Habitat. Terra firma forest. Distribution. Benin to Uganda. Local distribution. Ndakan. Phenology. Flower: May.Specimens. Gentry 62787.

Culcasia dinklagei Engl.

Ref. Ntépé-Nyame, Fl. Cam. 31: 80. 1988.

Habit. Herb 50 cm high.

Habitat. Terra firma mixed species and Gilbertiodendron dewevrei forest. Distribution. Guinea to Congo (Kinshasa) and Gabon. Local distribution. Bayanga, Ndakan. Phenology. Fruit: January, August.

Specimens. *Harris* 190, 998, 4228.

Culcasia loukandensis Pellegr.

Ref. Ntépé-Nyame, Fl. Cam. 31: 83. 1988.

Habit. Climber.

Habitat. Terra firma mixed species forest and Gilbertiodendron dewevrei forest. Distribution. Cameroon Gabon to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: December. Fruit: December.

Specimens. Harris 2, 4054.

Culcasia tenuifolia Engl.

Ref. Ntépé-Nyame, Fl. Cam. 31: 90. 1988.

Habit. Climber to 2 m high.

Habitat. Terra firma and riparian forest. Distribution. Sierra Leone to Gabon and Congo (Kinshasa). Local distribution. Kongana, Ndakan.

Phenology. Flower: September. Fruit: August, September.

Specimens. *Harris* 1023, 1118, 5023.

Rhaphidophora africana N.E.Br.

Ref. Ntépé-Nyame, Fl. Cam. 31: 75. 1988.

Habit. Climber becoming an epiphyte.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Liberia to Congo (Kinshasa). Local distribution. Lidjombo.

Specimens. Harris 4776B.

Asparagaceae

Asparagus drepanophyllus Welw. ex Baker

Ref. Baker, F.T.A. 7: 435. 1898.

Habit. Liana 4 m high.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: January. Fruit: January. Specimens. Harris 1723.

Colchicaceae

Gloriosa superba L. vel sp. aff.

Ref. Hepper, F.W.T.A. 3: 106. 1968.

Habit. Scandent shrub.

Habitat. Riparian forest on the Sangha River. Local distribution. Ndakan.

Phenology. Flower: August.

Specimens. Harris 895.

Commelinaceae

Amischotolype tenuis (C.B.Clarke) R.S.Rao

Ref. Lebrun & Strork, 1995: 21.

Habit. Herb 80 cm high.

Habitat. Light gaps in mixed species terra firma and Gilbertiodendron dewevrei forest. Distribution. Nigeria, Gabon, Cameroon, Congo (Kinshasa). Local distribution. Dzanga, Ndakan. Phenology. Flower: October.

Specimens. Harris 1010, 3593.

Aneilema beniniense (P.Beauv.) C.B.Clarke

Ref. Brenan, F.W.T.A. 3: 31. 1968.

Habit. Herb.

Habitat. Roads, paths, field edges and open places. Distribution. Tropical Africa. Local distribution. Kongana, Ndakan. Phenology. Flower: April, August. Fruit: February (immature).

Specimens. *Harris* 498, 1009, 4475.

Aneilema umbrosum (Vahl) Kunth subsp. ovato-oblongum (P.Beauv.) J.K.Morton

Ref. Brenan, F.W.T.A. 3: 30. 1968.

Habit Herb

Habitat. Forest streams. Distribution. South America and Sierra Leone to Uganda. Local distribution. Dzanga, Kongana. Phenology. Flower: June, December.

Specimens. Harris 3904, 5073.

Coleotrype laurentii K.Schum.

Ref. Brenan, F.W.T.A. 3: 36. 1968.

Habit. Herb.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Côte d'Ivoire to Uganda. Local distribution. Ndakan. Phenology. Flower: August. Specimens. Harris 906.

Commelina capitata Benth.

Ref. Brenan, F.W.T.A. 3: 47. 1968.

Habit. Herb semi-scandent to 1 m high.

Habitat. Terra firma mixed species forest and Gilbertiodendron dewevrei forest. Distribution. Senegal to Uganda and Angola. Local distribution. Kongana, Ndakan. Phenology. Flower: January, February, August,

November, December, Fruit: February, December.

Specimens. Harris 18, 71, 980, 1605, 1725, 1827, 1830, 4034, 4171, 4596.

Commelina diffusa Burm.f. subsp. diffusa

Ref. Brenan, F.W.T.A. 3: 47. 1968.

Habit. Herb.

Habitat. Well lit areas in terra firma and seasonally flooded forest.

Distribution. Widespread in tropics. Local distribution. Kongana, Njeke. Phenology. Flower: May, June.

Specimens. Harris 604, 5104.

Floscopa africana (P.Beauv.) C.B.Clarke

Ref. Brenan, F.W.T.A. 3: 28. 1968.

Habit. Herb.

Habitat. Riparian forest. Distribution. Gambia to Uganda. Local distribution. Dzanga, Kongana, Ndakan. Phenology. Flower: February, November, December. Fruit: January, February, November.

Specimens. Harris 1639, 1829, 4200, 4628, 4276A; Fangonda 286.

Palisota alopecurus Pellegr.

Ref. Pellegrin, 1930: 572.

Habit. Herb 1.5 m high.

Habitat. Light gaps and old fields. Distribution. Cameroon and Gabon. Local distribution. Yobe, Ndakan. Phenology. Flower: April, May, July.

Note. This is the easternmost record of this species. It is one of the rarest *Palisota* species in this area.

Specimens. *Harris* 542, 708, 3333.

Palisota ambigua (P.Beauv.) C.B.Clarke

Ref. Brenan, F.W.T.A. 3: 35. 1968.

Habit. Herb to 3 m high.

Habitat. Forest. Distribution. Nigeria to Congo (Kinshasa) and Gabon.

Local distribution. Bai Hoku, Ndakan. Phenology. Flower: January, February, April, May.

Specimens. *Harris* 94, 709, 1825, 1858; *Carroll* 1528.

Palisota brachythyrsa Mildbr.

Ref. Mildbraed, 1925: 251.

Habit. Herb to 3 m high.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Cameroon,

Gabon, Congo (Brazzaville) and Congo (Kinshasa). Local distribution.

Bai Hoku, Lidjombo, Ndakan. Phenology. Flower: January, February,

May, July. Fruit: January, April, May, July. Specimens. *Harris* 82, 697, 1742, 1826; *Fay* 8838; *Carroll* 1526.

Palisota mannii C.B.Clarke

Ref. Brenan, F.W.T.A. 3: 35. 1968.

Habit. Rosette herb.

Habitat. Terra firma forest and swamp forest. Distribution. Nigeria to Uganda. Local distribution. Kongana, Ndakan. Phenology. Flower: May. Fruit: May, July.

Specimens. Harris 685, 686, 769, 3413.

Palisota schweinfurthii C.B.Clarke

Ref. Brenan, F.W.T.A. 3: 35. 1968.

Habit. Herb 1.8 m high.

Habitat. Light gaps, roadsides, edges of fields. Distribution. Cameroon to Sudan, Tanzania, Zambia and Angola. Local distribution. Kongana, Lidjombo, Salcapa. Phenology. Flower: February, March, May, June.
 Specimens. Harris 4863, 5043, 5455.

Palisota thollonii Hua

Ref. Hua, 1895: 51.

Habit. Climbing herb to 5 m high.

Habitat. Mixed species and *Gilbertiodendron dewevrei* forest, and roadside vegetation. *Distribution*. Cameroon to Congo (Kinshasa) and Gabon.

Local distribution. Dzanga, Ndakan. Phenology. Flower: May. Fruit: May, July (immature).

Specimens. Harris 571, 2947.

Pollia condensata C.B.Clarke

Ref. Brenan, F.W.T.A. 3: 33. 1968.

Habit. Herb 1 m high.

Habitat. Terra firma forest. Distribution. Sierra Leone to Ethiopia,

Tanzania and Angola. *Local distribution*. Ndakan. *Phenology*. Flower: August. Fruit: January.

Specimens. *Harris* 95, 166, 990.

Polyspatha paniculata Benth.

Ref. Brenan, F.W.T.A. 3: 42. 1968.

Habit. Herb.

Habitat. Terra firma forest. Distribution. Guinea to Uganda. Local distribution. Ndakan, Kongana. Phenology. Flower: February,

November. Fruit: May (immature), February (old).

Specimens. Harris 257, 1593, 4441, 4569, 4631, 5010.

Stanfieldiella brachycarpa (Gilg & Ledermann ex Mildbr.) Brenan Ref. Brenan, F.W.T.A. 3: 24, 1968.

Habit. Herb.

Habitat. Riparian forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Kongana. Phenology. Flower: February. Fruit: February. Specimens. Harris 4662.

Stanfieldiella imperforata (C.B.Clarke) Brenan

Ref. Brenan, F.W.T.A. 3: 23. 1968.

Habit. Herb.

Habitat. Roadsides and riparian forest. Distribution. Sierra Leone to Tanzania and Angola. Local distribution. Dzanga, Kongana, Ndakan. Phenology. Flower: January, February, August, December. Fruit: January, February, April, June, August, December.

Specimens. Harris 413, 927, 953, 3905, 4027, 4275, 4277, 4374, 4391, 4476, 4480, 4551, 4573, 4613, 5057, 5061, 5445, 4276B.

Costaceae

Costus afer Ker Gawl.

Ref. Koechlin, Fl. Cam. 4: 92. 1965.

Habit. Herb to 3 m high.

Habitat. Light gaps and roadsides. *Distribution*. Senegal to Kenya and Tanzania. *Local distribution*. Ndakan, Lidjombo. *Phenology*. Flower: May.

Specimens. Harris 703; Fay 8608.

Costus dubius (Afzel.) K.Schum.

Ref. Hepper, F.W.T.A. 3: 78. 1968. *Synonym. Costus albus* A.Chev. ex Koechlin *Habit.* Herb to 3 m high.

Habitat. Light gaps, roadsides and riparian forest. Distribution. Sierra Leone to Uganda and Tanzania Local distribution. Ndakan. Phenology. Fruit: August.

Specimens. Harris 989, 1179.

Costus lucanusianus J.Braun & K.Schum.

Ref. Koechlin, Fl. Cam. 4: 90, 1965.

Habit. Herb to 4 m.

Habitat. Light gaps and roadsides. Distribution. Guinea to Uganda. Local distribution. Bai Hoku. Phenology. Flower: March.

Specimens. Harris 1016; Carroll 1146.

Costus oubangiensis Gagnep.

Ref. Koechlin, Fl. Cam. 4: 88. 1965.

Habit. Herb to 1 m high.

Habitat. Gilbertiodendron dewevrei and occasionally mixed species terra firma forest. Distribution. Central African Republic and Cameroon. Local distribution. Kongana. Phenology. Fruit: June.

Specimens. Harris 5079.

Cyperaceae

Cyperus fertilis Boeck.

Ref. Hooper, F.W.T.A. 3: 289. 1972.

Habit. Herb.

Habitat. Marshy clearing in forest. Distribution. Liberia to Angola. Local distribution. Ndakan. Phenology. Flower: April.

Specimens, Harris 414.

Eleocharis acutangula (Roxb.) Schult.

Ref. Hooper, F.W.T.A. 3: 314. 1972.

Habit. Herb.

Habitat. Permanent swamp. *Distribution*. Pantropical. *Local distribution*. Ndakan. *Phenology*. Flower: October.

Specimens. Harris 1488.

Fimbristylis bisumbellata (Forssk.) Bubani

Ref. Napper, F.W.T.A. 3: 320. 1972.

Habit. Herb.

Habitat. Riverbank. *Distribution*. Pantropical. *Local distribution*. Ndakan. Specimens. *Harris* 473.

Fuirena umbellata Rottb.

Ref. Hooper, F.W.T.A. 3: 325. 1972.

Habit. Herb.

Habitat. Riparian forest. Distribution. Pantropical. Local distribution. Ndakan. Phenology. Flower: May.

Specimens. Harris 614.

Hypolytrum heterophyllum Boeck.

Ref. Lebrun & Stork, 1995: 188.

Habit. Herb.

Habitat. Swamp. Local distribution. Ndakan. Phenology. Fruit: April. Specimens. Harris 502.

Kyllinga polyphylla Willd. ex Kunth

Ref. Haines & Lye, 1983: 239.

Habit. Herb.

Habitat. Seasonally flooded sedge meadow. Distribution. Tropical Africa. Local distribution. Ndakan.

Specimens. Harris 616.

Rhynchospora candida (Nees) Boeck.

Ref. Hooper, F.W.T.A. 3: 331. 1972.

Habit. Herb.

Habitat. Seasonally flooded sedge meadow. *Distribution*. Tropical America and Africa. *Local distribution*. Njeke. *Phenology*. Flower: November. Specimens. *Harris* 1524.

Rhynchospora corymbosa (L.) Britton

Ref. Hooper, F.W.T.A. 3: 331. 1972.

Habit. Herb.

Habitat. Streams. Distribution. Pantropical. Local distribution. Ndakan. *Phenology*. Flower: May.

Specimens. Harris 672.

Scleria boivinii Steud.

Ref. Napper, F.W.T.A. 3: 340. 1972.

Habit. Climbing herb 3 m high.

Habitat. Riparian forest. Distribution. Senegal to Madagascar. Local distribution. Ndakan. Phenology. Flower: November. Fruit: November. Specimens. Harris 1563, 1640.

Scleria verrucosa Willd.

Ref. Napper, F.W.T.A. 3: 340. 1972.

Habit. Herb.

Habitat. Swamp. Distribution. Senegal to Uganda and Tanzania. Local distribution. Ndakan. Phenology. Flower: January. Fruit: April. Specimens. Harris 112, 421.

Dioscoreaceae

Dioscorea baya De Wild.

Ref. Kunth, 1924: 301.

Habit. Liana.

Habitat. Swamp and seasonally flooded sedge meadow. Distribution.

Cameroon to Congo (Kinshasa). *Local distribution*. Kongana, Ndakan. *Phenology*. Flower: June, September.

Specimens. Harris 1193, 5028.

Dioscorea bulbifera L.

Ref. Miège, F.W.T.A. 3: 151. 1968.

Habit. Liana.

Habitat. Seasonally flooded sedge meadow. *Distribution*. Tropical Africa. *Local distribution*. Ndakan.

Specimens. Harris 1169.

Dioscorea dumetorum (Kunth) Pax

Ref. Miège, F.W.T.A. 3: 151. 1968.

Habit. Liana.

Habitat. Roadside and savanna edge. Distribution. Senegal to Angola.Local distribution. Bayanga, Yobe. Phenology. Fruit: October.Specimens. Harris 3335, 3510.

Dioscorea mangenotiana J.Miège

Ref. Miège, F.W.T.A. 3: 153. 1968.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Liberia to Congo (Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower: February, June.

Specimens. Harris 1178, 1319, 4488, 5059.

Dioscorea minutiflora Engl. vel sp. aff.

Ref. Miège, F.W.T.A. 3: 153. 1968.

Habit. Liana.

Habitat. Riparian forest. Local distribution. Dzanga, Ndakan.

Specimens. *Harris* 1422, 1441, 3608.

Dioscorea preussii Pax

Ref. Miège, F.W.T.A. 3: 152. 1968.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Senegal to Congo (Kinshasa).

Local distribution. Ndakan. Phenology. Flower: September, October.

Fruit: October

Specimens. Harris 1251, 1460, 1461; Fay 8531.

Dioscorea sansibarensis Pax

Ref. Miège, F.W.T.A. 3: 152. 1968.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Tropical Africa and Madagascar.

Local distribution. Kongana.

Specimens. Harris 4997.

Dioscorea semperflorens Uline

Ref. Kunth. 1924: 308.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Cameroon to Congo (Kinshasa).

Local distribution. Ndakan.

Specimens, Harris 1369.

Dioscorea smilacifolia De Wild.

Ref. Miège, F.W.T.A. 3: 153. 1968.

Habit. Liana.

Habitat. Terra firma forest. Distribution. Sierra Leone to Congo

(Kinshasa). Local distribution. Kongana, Ndakan. Phenology. Flower:

January, December. Fruit: January.

Specimens. Harris 21, 87, 4356, 5390.

Dioscorea sp. A.

Habit. Liana.

Habitat. Terra firma forest. Local distribution. Ndakan.

Specimens. Harris 1367, 1661.

Dioscorea sp. B.

Habit. Liana.

Habitat. Terra firma forest. Local distribution. Kongana, Ndakan.

Phenology. Flower: July.

Specimens. *Harris* 69, 175, 3495; *Fay* 8497.

Gramineae

Echinochloa pyramidalis (Lam.) Hitchc. & Chase

Ref. van der Zon, 1992: 251.

Habit. Herb.

Habitat. Edge of Sangha River. Distribution. Tropical Africa. Local distribution. Ndakan.

Specimens. Harris 877.

Heteranthoecia guineensis (Franch.) Robyns

Ref. van der Zon, 1992: 357.

Habit. Herb.

Habitat. Seasonally flooded sedge meadow. Distribution. Tropical Africa. Local distribution. Ndakan.

Specimens, Harris 1638.

Isachne buettneri Hack.

Ref. van der Zon, 1992: 353.

Habit. Herb.

Habitat. Seasonally flooded sedge meadow. Distribution. Guinea Bissau to Uganda and Angola. Local disbribution. Ndakan.

Specimens. Harris 428.

Leptaspis zeylanica Nees ex Steud.

Ref. van der Zon, 1992: 41. Synonym. Leptaspis cochleata Thwaites

Habit. Herb.

Habitat. Terra firma forest. Distribution. Tropical Africa and Asia. Local distribution. Ndakan.

Specimens. Harris 225.

Leptochloa caerulescens Steud.

Ref. van der Zon, 1992: 106.

Habit. Herb.

Habitat. Seasonally flooded forest. *Distribution*. Senegal to Sudan, Zambia and Angola. *Local distribution*. Ndakan.

Specimens. Harris 289.

Megastachya mucronata (Poir.) P.Beauv.

Ref. van der Zon, 1992: 84.

Habit. Herb.

Habitat. Seasonally flooded sedge meadow. Distribution. Tropical Africa. Local distribution. Ndakan.

Specimens. Harris 653.

Olyra latifolia L.

Ref. van der Zon, 1992: 38.

Habit. Herb.

Habitat. Secondary forest on old fields. *Distribution*. Tropical America and Africa. *Local distribution*. Ndakan.

Specimens. Harris 267.

Panicum brevifolium L.

Ref. van der Zon, 1992: 207.

Habit. Herb.

Habitat. Riparian forest. Distribution. Tropical Africa and Asia. Local distribution. Ndakan.

Specimens. Harris 429, 875A.

Pennisetum purpureum Schumach.

Ref. van der Zon, 1992: 341.

Habit. Herb.

Habitat. Riparian forest. Distribution. Tropical Africa. Local distribution. Ndakan.

Specimens. Harris 1657.

Setaria gracilipes C.E.Hubb.

Ref. van der Zon, 1992: 289.

Habit. Herb.

Habitat. Riparian forest. Distribution. Nigeria to Zambia. Local distribution. Ndakan.

Specimens, Harris 754.

Streptogyna crinita P.Beauv.

Ref. van der Zon, 1992: 42.

Habit. Herb.

Habitat. Terra firma forest. Distribution. Tropical Africa, India and Sri Lanka. Local distribution. Ndakan.

Specimens. Harris 1644.

Hydrocharitaceae

Hydrocharis chevalieri (De Wild.) Dandy

Ref. Hepper, F.W.T.A. 3: 7. 1968.

Habit. Herb.

Habitat. Open water and bare mud. Distribution. Cameroon to Congo (Kinshasa). Local distribution. Dzanga, Ndakan. Phenology. Flower: October, November. Fruit: October.

Specimens. Harris 1637, 3528, 3586.

Ottelia ulvifolia (Planch.) Walp.

Ref. Hepper, F.W.T.A. 3: 7. 1968.

Habit. Herb.

Habitat. Shallow streams. *Distribution*. Tropical Africa and Madagascar. *Local distribution*. Kongana, Ndakan. *Phenology*. Flower: February, September.

Specimens. Harris 1124, 4733.

Marantaceae

Ataenidia conferta (Benth.) Milne-Redh.

Ref. Koechlin, Fl. Cam., 4: 136. 1965.

Habit. Herb, branching, to 3 m high.

Habitat. Terra firma forest. Distribution. Côte d'Ivoire to Sudan and Uganda Local distribution. Ndakan, Bai Hoku. Phenology. Flower: March, December.

Specimens. Harris 4: Carroll 1114.

Halopegia azurea (K.Schum.) K.Schum.

Ref. Koechlin, Fl. Cam., 4: 140. 1965.

Habit. Herb to 1 m high.

Habitat. Riparian forest and swamps. Distribution. Sierra Leone to Congo (Kinshasa) and Gabon. Local distribution. Dzanga, Ndakan. Phenology. Flower: February, October.

Specimens. *Harris* 1197, 1831, 1874, 3588.

Haumania danckelmaniana (J.Braun & K.Schum.) Milne-Redh.

Ref. Koechlin, Fl. Cam., 4: 116. 1965.

Habit. Vine to 10 m high.

Habitat. Light gaps, roadside vegetation and old fields. Distribution.

Cameroon to Congo (Kinshasa) and Gabon. Local distribution.

Bayanga, Lidjombo, Ndakan. *Phenology*. Flower: July, October. **Specimens.** *Harris*, 1394; *Fay* 8314, 8319, 8324, 8330, 8331, 8393, 8408, 8626, 8635.

Hypselodelphys scandens Louis & Mullend.

Ref. Koechlin, Fl. Cam., 4: 113. 1965.

Habit. Branching lianescent herb to 4 m high.

Habitat. Terra firma and riparian forest. Distribution. Côte d'Ivoire to Congo (Kinshasa) and Gabon. Local distribution. Lidjombo, Ndakan, Yobé. Phenology. Flower: May, September, October. Fruit: June, July.

Note. Koechlin (Fl. Cam. 4. 1965) notes that specimens from Central African Republic and Cameroon have violet flowers which differ in colour from the original description. All but one of the flowering specimens collected in the Dzanga-Sangha area were violet. The discontinuity between petiole and midrib, on the underside of the leaf, does not appear to be consistently correlated with flower colour as suggested by Koechlin.

Specimens. Harris 17, 795, 1172, 1405, 3334; Fay 8320, 8328, 8329, 8395, 8397, 8409, 8418, 8776.

Marantochloa congoensis (K.Schum.) J.Léonard & Mullend.

Ref. Koechlin, Fl. Cam., 4: 123. 1965.

Habit. Branched herb to 1.5 m high.

Habitat. Gilbertiodendron dewevrei and mixed species terra firma forest, occasionally in seasonally flooded forest. Distribution. Sierra Leone to Congo (Kinshasa) and Gabon. Local distribution. Dzanga, Kongana, Ndakan. Phenology. Flower: February, October, November, December. Fruit: January, February, October.

Note. Occasionally gregarious.

Specimens. Harris 25, 42, 1004, 1271, 1349, 1407, 1526, 1645, 1753, 1954, 3563, 3879, 4664.

Marantochloa filipes (Benth.) Hutch.

Ref. Koechlin, Fl. Cam. 4: 126. 1965.

Habit. Branching herb 2 m high.

Habitat. Light gaps in terra firma forest. Distribution. Guinea to Gabon and Congo (Kinshasa). Local distribution. Ndakan. Phenology. Fruit: January, August, October.

Specimens. Harris 867, 993, 1338, 1752.

Marantochloa leucantha (K.Schum.) Milne-Redh.

Ref. Koechlin, Fl. Cam. 4: 127. 1965.

Habit. Branching herb to 3 m high.

Habitat. Roadside vegetation. Distribution. Guinea to Sudan and Tanzania.Local distribution. Dzanga to Bayanga. Phenology. Flower: May. Fruit: May (immature).

Specimens. Harris 5588.

Marantochloa mannii (Benth.) Milne-Redh.

Ref. Koechlin, Fl. Cam., 4: 130. 1965.

Habit. Branching herb to 2.5 m high.

Habitat. Riparian forest. Distribution. Côte d'Ivoire to Sudan, Uganda and Tanzania. Local distribution. Ndakan. Phenology. Flower: April, September.

Specimens. Harris 407, 1168.

Marantochloa mildbraedii Loes. ex Koechlin

Ref. Koechlin, Fl. Cam. 4: 133, 1965.

Habit. Branching herb to 2 m.

Habitat. Light gaps in terra firma forest, seasonally flooded forest and Gilbertiodendron dewevrei forest. Distribution. Cameroon and Gabon. Local distribution. Ndakan. Phenology. Flower: January, August, October. Fruit: January, August, October, December.

Note. This is a poorly known species, however it appears that it is distinct from *Marantochloa cordifolia*. In addition to the characters given by Koechlin (Fl. Cam. 4, 1965) it is probable that fruit colour also separates the two species. The fruit of *M. cordifolia* are apparently red and those of *M. mildbraedii* are a very pale yellowish pink. This appears to be the most eastern record for this species.

Specimens. *Harris* 16, 96, 1005, 1395, 1731; *Fay* 8394.

Marantochloa monophylla (K.Schum.) D'Orey

Ref. Dhetchuvi, 1996: 371. Synonym. Marantochloa holostachya (Baker) Hutch.

Habit. Unbranched herb to 80 cm high.

Habitat. Seasonally flooded Gilbertiodendron dewevrei forest.

Distribution. Cameroon, Gabon, Congo (Kinshasa). Local distribution. Ndakan. Phenology. Flower: May, September. Fruit: September.

Specimens. Harris 654, 1035.

Marantochloa purpurea (Ridl.) Milne-Redh.

Ref. Koechlin, Fl. Cam. 4: 129. 1965.

Habit. Branched herb, sometimes climbing, to 3 m high.

Habitat. Riparian forest. Distribution. Sierra Leone to Uganda and Tanzania. Local distribution. Ndakan. Phenology. Flower: January, May. Fruit: January, May.

Note. Milne-Redhead (F.T.E.A. (Marantaceae). 1952) notes that flower colour in West African and Angolan specimens are deep purple and those from Uganda and Tanzania are pale pink. All specimens from the Dzanga-Sangha area have pale pink flowers, with pinkish calyx lobes and an almost white corolla.

Specimens. Harris 111, 187, 641, 666.

Megaphrynium macrostachyum (Benth.) Milne-Redh.

Ref. Koechlin, Fl. Cam. 4: 154. 1965.

Habit. Unbranched herb to 4 m high.

Habitat. Forms dense monospecific stands, also occurs in understorey of terra firma forest. Distribution. Sierra Leone to Uganda and Gabon. Local distribution. Ndakan. Phenology. Flower: April, May. Fruit: October (immature).

Note. In contrast to the specific key by Hepper (F.W.T.A. 3. 1968) the inflorescence often arises 30 cm below the calloused portion of the leaf petiole.

Specimens. Harris 165, 495, 718; Fay 8310, 8312, 8313, 8335, 8658.

Megaphrynium trichogynum Koechlin

Ref. Koechlin, Fl. Cam. 4: 153. 1965.

Habit. Herb to 1.8 m high.

Habitat. Terra firma forest. Distribution. Liberia to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Flower: September.

Fruit: January, September, December.

Specimens. *Harris* 1134, 1171, 1732; *Fay* 8520.

Sarcophrynium brachystachys (Benth.) K.Schum.

Ref. Hepper, F.W.T.A. 3. 1968.

Habit. Herb to 1 m high.

Habitat. Seasonally flooded forest. Distribution. Senegal to Congo (Kinshasa) and Gabon. Local distribution. Ndakan. Phenology. Fruit: December.

Note. The specific epithet "brachystachyum" used by Koechlin (Fl. Cam. 4, 1965) is incorrect because the epithet of the basionym (brachystachys) is a noun in apposition and therefore does not change its gender to that of the genus according to Article 23.5 of the International Code of Botanical Nomenclature Article (Greuter & al. 2000).

Specimens. Harris 29; Fay 8538.

Sarcophrynium schweinfurthianum (Kuntze) Milne-Redh.

Ref. Koechlin, Fl. Cam. 4: 150. 1965.

Habit. Herb to 2 m high.

Habitat. Terra firma forest. Distribution. Cameroon and Gabon (Makokou at least), to Sudan and Uganda. Local distribution. Bai Hoku, Kongana, Ndakan. Phenology. Flower: July, December. Fruit: July, August, October, November, December.

Note. The species key by Koechlin (Fl. Cam. 4. 1965) separating *Sarcophrynium prionogonium*. and *S. schweinfurthianum* is misleading:

bracts of *S. schweinfuthianum* can reach a length of 30 mm and often exceed the 20 mm given in the key. The best character to separate the two species is the shape of the fresh fruit which are clearly parallel sided and pruniform in *S. prionogonium*, but are pyriform (i.e. shaped like an avocado) in *S. schweinfurthianum*.

Specimens. Harris 3, 28, 61, 1026, 1034, 1467, 1715, 3472; Fay 8521, 8716, 8752; Carroll 1586.

Thalia geniculata L.

Ref. Andersson, 1981: 55.

Habit. Herb to 2 m high.

Habitat. Swamps and streams. Distribution. Senegal to Sudan, Congo (Kinshasa) and Zambia. Local distribution. Dzanga. Phenology. Flower: October.

Specimens. Harris 3517.

Trachyphrynium braunianum (K.Schum.) Baker

Ref. Koechlin, Fl. Cam. 4: 106. 1965.

Habit. Herb to 2 m high.

Habitat. Riparian and seasonally flooded forest. *Distribution*. Guinea to Sudan. *Local distribution*. Ndakan, Lidjombo, Salcapa. *Phenology*.

Flower: January, March. Fruit: January, March.

Specimens. *Harris* 127, 804; *Fay* 8780.

Orchidaceae

Aerangis stelligera Summerh.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 509. 1992.

Habit. Epiphyte.

Habitat. Gilbertiodendron dewevrei forest. *Distribution*. Cameroon to Congo (Kinshasa). *Local distribution*. Ndakan.

Specimens. *Harris* 1527, 1566, 1695.

Ancistrorhynchus metteniae (Kraenzl.) Summerh.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 570. 1992.

Habit. Epiphyte.

Habitat. Riparian forest on the Sangha River. *Distribution*. Sierra Leone to Ethiopia and Tanzania. *Local distribution*. Ndakan.

Specimens. Harris 1117.

Angraecum distichum Lindl.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 480. 1992.

Habitat. Riparian forest on the Sangha River. Distribution. Guinea to Angola and Mozambique. Local distribution. Ndakan.

Specimens. Harris 751, 1142.

Auxopus kamerunensis Schltr.

Ref. Summerhayes, F.W.T. A. 3: 207. 1968.

Habit. Saprophytic herb.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Liberia to Central African Republic. *Local distribution*. Lidjombo.

Specimens. Harris 4776.

Bulbophyllum cocoinum Lindl.

Ref. Vermeulen, Fl. Afr. Cent. (Orchidaceae, 2): 334. 1992.

Habit. Epiphyte.

Habitat. Forest. Distribution. Sierra Leone to Uganda and Angola. Local distribution. Ndakan.

Specimens. Fay 8431.

Bulbophyllum fayi J.J.Verm.

Ref. Vermeulen, 1992: 138.

Habit. Epiphyte.

Habitat. Riparian forest. *Distribution*. Only known from Dzanga-Sangha area. *Local distribution*. Ndakan.

Specimens. Harris 1144.

Bulbophyllum imbricatum Lindl.

Ref. Vermeulen, Fl. Afr. Cent. (Orchidaceae, 2): 347. 1992.

Habit. Epiphyte.

Habitat. Riparian forest. *Distribution*. Sierra Leone to Congo (Kinshasa) and Gabon. *Local distribution*. Ndakan.

Specimens. Harris 1148, 1428, 1520.

Bulbophyllum maximum (Lindl.) Rchb.f.

Ref. Vermeulen, Fl. Afr. Cent. (Orchidaceae, 2): 344. 1992.

Habit. Epiphyte.

Habitat. Terra firma forest. Distribution. Sierra Leone to Tanzania, Zimbabwe and Angola. Local distribution. Ndakan.

Specimens. Harris 1290.

Bulbophyllum oxychilum Schltr.

Ref. Vermeulen, Fl. Afr. Cent. (Orchidaceae, 2): 339. 1992.

Habitat. Riparian forest. Distribution. Liberia to Uganda. Local distribution. Ndakan.

Specimens. Harris 1146.

Bulbophyllum pumilum (Sw.) Lindl.

Ref. Vermeulen, Fl. Afr. Cent. (Orchidaceae, 2): 330. 1992.

Habit. Epiphyte.

Habitat. Riparian forest. Distribution. Guinea to Congo (Kinshasa) and Gabon. Local distribution. Ndakan.

Specimens. Harris 1579.

Bulbophyllum purpureorhachis (De Wild.) Schltr.

Ref. Vermeulen, Fl. Afr. Cent. (Orchidaceae, 2): 351. 1992.

Habit. Epiphyte.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Ivory Coast to Congo (Kinshasa) and Gabon. Local distribution. Kongana.

Specimens. Harris 5513.

Bulbophyllum saltatorium Lindl. var. albociliatum (Finet) J.J.Verm.

Ref. Vermeulen, Fl. Afr. Cent. (Orchidaceae, 2): 315. 1992.

Habit. Epiphyte.

Habitat. Riparian forest. Distribution. Liberia to Uganda and Angola. Local distribution. Ndakan.

Specimens. Harris 1145.

Bulbophyllum scaberulum (Rolfe) Bolus

Ref. Vermeulen, Fl. Afr. Cent. (Orchidaceae, 2): 352. 1992.

Habit. Epiphyte.

Habitat. Gilbertiodendron dewevrei and riparian forest. Distribution.

Guinea to South Africa. Local distribution. Ndakan.

Specimens. Harris 1289, 2597.

Calyptrochilum christyanum (Rchb.f.) Summerh.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 592. 1992.

Habit. Epiphyte.

Habitat. Terra firma forest. Distribution. Senegal to Ethiopia, Zimbabwe and Angola. Local distribution. Ndakan.

Specimens. Harris 44.

Chamaeangis odoratissima (Rchb.f.) Schltr.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 599. 1992.

Habitat. Mixed species and Gilbertiodendron dewevrei forest. Distribution. Sierra Leone to Tanzania, Angola and Gabon. Local distribution. Ndakan. Dzanga.

Specimens. *Harris* 1581, 1582, 1626, 3912.

Chamaeangis vesicata (Lindl.) Schltr.

Ref. Cribb, F.T.E.A. (Orchidaceae, 3): 547. 1989.

Habit. Epiphyte.

Habitat. Terra firma forest. *Distribution*. Guinea to Tanzania and Gabon. Specimens. *Harris* 1291.

Cyrtorchis chailluana (Hook.f.) Schltr.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 487. 1992.

Habit. Epiphyte. Distribution. Nigeria to Uganda and Gabon. Local distribution. Ndakan.

Habitat. Riparian forest.

Specimens. Harris 951, 1120, 1150, 1295, 1521.

Cyrtorchis monteiroae (Rchb.f.) Schltr.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 493. 1992.

Habit. Epiphyte.

Habitat. Seasonally flooded forest. *Distribution*. Sierra Leone to Uganda and Gabon. *Local distribution*. Ndakan.

Specimens. Harris 277.

Diaphananthe bidens (Sw.) Schltr.

Ref. Cribb, F.T.E.A. (Orchidaceae, 3): 526. 1989.

Habit. Epiphyte.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Guinea Bissau to Uganda, Gabon and Angola. Local distribution. Ndakan.

Specimens, Harris 45, 1627.

Diaphananthe cuneata Summerh.

Ref. Cribb, F.T.E.A. (Orchidaceae, 3): 531. 1989.

Habit. Epiphyte.

Habitat. Terra firma forest. Distribution. Cameroon to Uganda. Local distribution. Kongana. Phenology. Flower: June.

Specimens. Harris 5042.

Diaphananthe rohrii (Rchb.f.) Summerh.

Ref. Cribb, F.T.E.A. (Orchidaceae, 3): 531. 1989.

Habitat. Terra firma forest. Distribution. Liberia to Ethiopia, Tanzania and Angola. Local distribution. Ndakan.

Specimens. Harris 106.

Diaphananthe rutila (Rchb.f.) Summerh.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 550. 1992.

Habit. Epiphyte.

Habitat. Terra firma forest. Distribution. Guinea to Sudan, Tanzania and Angola. Local distribution. Ndakan.

Specimens. *Harris* 1583, 2557; *Fay* 8673.

Eulophia euglossa (Rchb.f.) Rchb.f.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 670. 1992.

Habit. Herb.

Habitat. Terra firma forest. Distribution. Sierra Leone to Ethiopia and Uganda. Local distribution. Kongana. Phenology. Flower: June.

Specimens. Harris 5122.

Graphorchis lurida (Sw.) Kuntze

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 708. 1992.

Habit. Epiphyte.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Senegal to Uganda and Zambia. Local distribution. Ndakan.

Specimens. Harris 1986.

Habenaria occidentalis (Lindl.) Summerh.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 1): 60. 1984.

Habit. Herb.

Habitat. Terra firma forest. Distribution. Ivory Coast to Congo (Kinshasa).

Local distribution. Kongana. Phenology. Flower: December.

Specimens. Harris 4064.

Oeceoclades saundersiana (Rchb.f.) Garay & Taylor

Ref. Cribb, F.T.E.A. (Orchidaceae, 3): 419. 1989. *Synonym. Eulophia saundersiana* Reich.f. *Habit.* Herb.

Habitat. Terra firma forest. Distribution. Sierra Leone to Uganda and Angola. Local distribution. Ndakan.

Specimens. Harris 339.

Polystachya adansoniae Rchb.f.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 434. 1992.

Habitat. Riparian forest on the Sangha River. *Distribution*. Liberia to Tanzania and Zimbabwe. *Local distribution*. Ndakan.

Specimens. Harris 1147.

Polystachya concreta (Sw.) Garay & H.R.Sweet

Ref. Cribb, F.T.E.A. (Orchidaceae): 362. 1984.

Habit. Epiphyte.

Habitat. Riparian forest on Sangha River. Distribution. Tropical America, Africa and Asia. Local distribution. Ndakan.

Specimens. Harris 1116, 1143, 1292, 1293.

Polystachya modesta Rchb.f.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 445. 1992.

Habit. Epiphyte.

Habitat. Terra firma forest. Distribution. Ivory Coast to Uganda and South Africa. Local distribution. Ndakan.

Specimens. Harris 146.

Polystachya mukandaensis De Wild.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 448. 1992.

Habit. Epiphyte.

Habitat. Riparian forest. Distribution. Liberia to Congo (Kinshasa). Local distribution. Ndakan.

Specimens. Harris 1113, 1519.

Polystachya ramulosa Lindl.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 439. 1992.

Habit. Epiphyte.

Habitat. Riparian forest. Distribution. Sierra Leone to Uganda and Gabon. Local distribution. Ndakan.

Specimens. Harris 1121, 1294.

Solenangis clavata (Rolfe) Schltr.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 576. 1992.

Habit. Epiphyte.

Habitat. Gilbertiodendron dewevrei forest. Distribution. Liberia to Congo (Kinshasa). Local distribution. Ndakan.

Specimens. Harris 1621; Fay 8432.

Solenangis scandens (Schltr.) Schltr.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 578. 1992.

Habitat. Forest. Distribution. Sierra Leone to Congo (Kinshasa). Local distribution. Ndakan.

Specimens. Fay 8438.

Tridactyle anthomaniaca (Rchb.f.) Summerh.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 529. 1992.

Habit. Epiphyte.

Habitat. Riparian forest on the Sangha River. *Distribution*. Sierra Leone to Mozambique and Zimbabwe. *Local distribution*. Ndakan.

Specimens. Harris 1550, 1580.

Tridactyle tridactylites (Rolfe) Schltr.

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 2): 543. 1992.

Habit. Epiphyte.

Habitat. Riparian forest on the Sangha River. *Distribution*. Guinea Bissau to Mozambique and Zambia. *Local distribution*. Ndakan.

Specimens. Harris 1149.

Vanilla sp. A.

Habit. Liana.

Habitat. Terra firma forest.

Specimen. Harris 51.

Zeuxine elongata Rolfe

Ref. Geerinck, Fl. Afr. Cent. (Orchidaceae, 1): 20. 1984.

Habit Herb

Habitat. Terra firma forest. Distribution. Sierra Leone to Uganda and Tanzania. Local distribution. Ndakan.

Specimen, Harris 1779.

Palmae

Calamus deeratus G.Mann & H.Wendl.

Ref. Russell, F.W.T.A. 3: 166. 1968.

Habit. Liana 15 m high.

Habitat. Seasonally flooded forest. *Distribution*. Senegal to Uganda and Angola. *Local distribution*. Ndakan. *Phenology*. Flower: December (immature). Fruit: June.

Specimens. Harris 820, 1658.

Eremospatha cabrae (De Wild. & T.Durand) De Wild.

Ref. De Wildeman 1904: 95.

Habit. Liana to 20 m high.

Habitat. Mixed forest, often close to streams. Distribution. Congo (Kinshasa), Cameroon and Gabon. Local distribution. Kongana, Lidjombo. Phenology. Flower: May.

Specimens. *Harris* 3419, 4765, 4966.

Eremospatha haullevilleana De Wild.

Ref. De Wildeman 1904: 96.

Habit. Liana to 20 m high.

Habitat. Mixed forest and seasonally flooded forest. Distribution.

Tanzania, Congo (Kinshasa), Cameroon and Congo (Brazzaville). *Local distribution*. Kongana, Lidjombo, Ndakan. *Phenology*. Flower: May.

Fruit: November.

Specimens. *Harris* 1455, 2360, 2652, 3359, 3437, 3508.

Eremospatha laurentii De Wild.

Ref. De Wildeman, 1916: 147.

Habit. Liana to 15 m.

Habitat. Seasonally flooded forest and riparian forest on the Sangha River. Distribution. Congo (Kinshasa), Cameroon, Nigeria. Local distribution. Ndakan. Phenology. Flower: November. Fruit: November.

Specimens. Harris 1620.

Laccosperma opacum (G.Mann & H.Wendl.) Drude

Ref. Dransfield, 1982: 456.

Habit. Liana 15 m high.

Habitat. Forest. *Distribution*. Ghana to Gabon. *Local distribution*. Ndakan. Specimens. *Harris* 1494.

Laccosperma secundiflora (P.Beauv.) Kuntze

Ref. Dransfield, 1982: 456.

Habit. Liana 20 m high.

Habitat. Forest and roadsides. *Distribution*. Guinea-Bissau to Congo (Kinshasa). *Local distribution*. Ndakan. *Phenology*. Flower: April.

Note. Tuley (1995) describes the position of the leaflets relative to the rachis: either horizontal or vertical, as useful in separating *L. secundiflorum* from *L. acutiflorum*. I found this character to vary so greatly on single stems that I am sceptical of its usefulness in distinguishing the two species.

Specimens. *Harris* 449, 1551, 1718.

Raphia hookeri G.Mann & H.Wendl.

Ref. Russell, F.W.T.A. 3: 162. 1968.

Habit. Tree to 15 m.

Habitat. Permanent swamps. Distribution. Guinea to Gabon. Local distribution. Ndakan. Phenology. Fruit: December.

Specimens. Fay 8904.

Raphia laurentii De Wild.

Ref. Tuley, 1995: 70.

Habit. Tree to 15 m high (including leaves).

Habitat. Edges of streams and swamps. *Distribution*. Congo (Kinshasa). *Phenology*. Fruit: December.

Specimens. Harris 1698.

Pontederiaceae

Eichhornia crassipes (Mart.) Solms

Ref. Hepper, F.W.T.A. 3: 110. 1968.

Habit. Floating herb.

Habitat. Sangha River and seasonally flooded forest. Distribution. Tropical America, introduced to Africa. Local distribution. Ndakan. Phenology. Flower: June

Specimens. Harris 821.

Heteranthera callifolia Rchb. ex Kunth

Ref. Hepper, F.W.T.A. 3: 111. 1968.

Habit. Herb.

Habitat. Soft mud at the edge of streams. Distribution. Tropical Africa. Local distribution. Dzanga. Phenology. Flower: October.

Specimens. Harris 3590.

Smilacaceae

Smilax anceps Willd.

Ref. Cowley, F.T.E.A. (Smilacaceae):2. 1989. Synonym. Smilax kraussiana Meisn. Habit. Liana.

Habitat. Terra firma and riparian forest. Distribution. Tropical Africa. Local distribution. Dzanga, Ndakan. Phenology. Fruit: July, September. Specimens. Harris 73, 1093, 3556; Fay 8536.

Zingiberaceae

Aframomum daniellii (Hook.f.) K.Schum. vel sp. aff.

Ref. Hepper, F.W.T.A. 3: 76. 1968.

Habit. Herb to 2 m high.

Habitat. Seasonally flooded sedge meadows and open places with poor drainage. Local distribution. Salcapa, Ndakan. Phenology. Flower: March, April, May, September. Fruit: April, May, September.

Note. The specimens from this area differ from the type of *A. daniellii* by being consistently from wet areas, and having a reticulate rather than simply ridged leaf sheath, and having less prominent veins below. The specimens from this area also have a rather long unbranched inflorescence.

Specimens. *Harris* 420, 512, 787, 1191, 4822.

Aframomum flavum Lock

Ref. Lock 1978: 394.

Habit. Herb to 4 m high.

Habitat. Roadsides and cleared land such as old logging camps.Distribution. Cameroon. Local distribution. Bai Hoku, Lidjombo,Kongana. Phenology. Flower: February, March.

Note. This locality represents an easterly range extension of 600 km, from the distribution given by Lock (1978).

Specimens. Harris 4782, 5458; Fay 8698; Carroll 1117, 1121.

Aframomum letestuanum Gagnep.

Ref. Koechlin, Fl. Cam. 4: 52. 1965.

Habit. Herb to 3 m.

Habitat. Small light gaps and tree falls in mixed species *terra firma* forest, often in *Gilbertiodendron dewevrei* forest, occasionally beside roads.

Distribution. Cameroon, Gabon to Uganda. Local distribution.

Kongana, Bai Hoku, Ndakan. *Phenology*. Flower: January, February.

Fruit: January, February, March, May, November.

Specimens. Harris 1449, 1561, 1729, 1730, 1820, 4985, 5439; Carroll 1039, 1116, 1573, 1581.

Aframomum limbatum (Oliv. & D.Hanb.) K.Schum.

Ref. Lock, 1980: 307.

Habit. Herb to 3 m high.

Habitat. Light gaps and roadsides. *Distribution*. Nigeria to Gabon, Cameroon, and Bioko. *Local distribution*. Ndakan, Bai Hoku. *Phenology*. Flower: September, October.

Note. The ligule length in the specimens from this area are closer to those of *A. geocarpum* from Ghana, however the reticulate venation on the

leaf sheaths is closer to the type of *A. limbatum*. Since the ligules do break off in older individuals of this species I prefer to call this *A. limbatum*. These two taxa are closely related and careful study will be necessary to deliminate these taxa. Lock (pers. comm.) has mentioned the possibility that, together with *A. amaniense*, they might be better treated as subspecies of one widespread species.

Specimens. Harris 62, 89, 192, 105A, 1173, 1287, 1737, 2269; Fay 8639; Carroll 1582.

Aframomum longiligulatum Koechlin

Ref. Koechlin, Fl. Cam. 4: 46. 1965.

Habit. Herb to 1 m high.

Habitat. Gilbertiodendron dewevrei forest and occasionally in mixed species terra firma forest. Distribution. Cameroon and Gabon. Local distribution. Kongana, Dzanga, Ndakan. Phenology. Fruit: December.

Note. This is the first record of this species from the Central African Republic and is the most easternly recorded locality. **Specimens.** *Harris* 1346, 3594, 3929.

Aframomum polyanthum (K.Schum.) K.Schum.

Ref. Koechlin, Fl. Cam. 4: 49. 1965.

Habit. Herb to 3 m high.

Habitat. Forest streams. Distribution. Cameroon, Gabon to Sudan and
 Zambia. Local distribution. Kongana, Bai Hoku, Ndakan, Dzanga.
 Phenology. Flower: September, December. Fruit: October, December.
 Specimens. Harris 1190, 3584, 3621, 4164.

Aframomum pseudostipulare Loes. & Mildbr. ex Koechlin

Ref. Koechlin, Fl. Cam. 4: 57. 1965.

Habit. Herb to 1 m high.

Habitat. Seasonally flooded forest, forming extensive stands. Distribution.Cameroon and Gabon. Local distribution. Ndakan. Phenology. Flower: March.

Specimens. Harris 294; Fay 8285.

Aframomum subsericeum (Oliv. & D.Hanb.) K.Schum subsp. subsericeum

Ref. Lock, 1980: 305.

Habit. Herb to 3 m high.

Habitat. Mixed species and Gilbertiodendron dewevrei forest, occasionally in roadside vegetation. Distribution. Nigeria to Gabon and Congo (Kinshasa). Local distribution. Kongana, Bai Hoku, Ndakan.

Phenology. Flower: May, July. Fruit: November.

Specimens. *Harris* 1480, 3497, 4878; *Fay* 8551A; *Carroll* 1570.

Aframomum verrucosum Lock

Ref. Lock 1984: 838.

Habit. Herb to 2.5 m high.

Habitat. Terra firma forest. Distribution. Gabon to Uganda and Tanzania. Local distribution. Bai Hoku, Kongana. Phenology. Fruit: January, June, November.

Note. This is the westernmost published record of a species described from Uganda (Lock, 1984). There are, however, specimens from Belinga, Gabon: *Hallé* 3712 (P) and *Tutin* 3 (K); which may also be this species. Specimens. *Harris* 4311, 5102; *Carroll* 1563, 1572, 1580.

Aframomum sp. A.

Habit. Herb to 3 m high.

Habitat. Mixed species stands with Aframomum limbatum in light gaps and roadsides. Distribution. Cameroon, Gabon to Congo (Kinshasa). Local distribution. Bai Hoku, Ndakan, Kongana. Phenology. Flower: March, April, May, November. Fruit: February, April, May (immature), June, July, October.

Note. This species is conspecific with *Breteler* 226 and *Leeuwenberg* 5459, which are cited by Lock (1980) under *A. leptolepsis*. I do not consider those specimens to be conspecific with the lectotype of *A. leptolepsis*, *Preuss* 555, Kumba, Cameroon. Lock & Hall (1973) state that "*A. leptolepsis* cannot be considered well known" which seems to still be true. Specimens. *Harris* 133, 135, 173, 181, 182, 206, 418, 1317, 3503, 4879, 4880, 5052, 5485; *Fay* 8308, 8309, 8311, 8496, 8640; *Carroll* 1120, 1561, 1562, 1571.

Aframomum sp. B.

Habit. Herb 1.8 m high.

Habitat. Mud at the edge of the Sangha River. *Local distribution.* Ndakan. *Phenology.* Flower: February.

Specimens. Harris 1803, 1894B.

Aframomum sp. C.

Habit. Herb to 1.5 m high.

Habitat. Gilbertiodendron dewevrei forest and riparian forest. Local distribution. Ndakan, Kongana, Bai Hoku. Phenology. Flower: May. Specimens. Harris 1485, 4986, 4992; Carroll 1529.

Aframomum sp. D.

Habit. Herb to 4 m high.

Habitat. Gilbertiodendron dewevrei forest and small light gaps in terra firma forest. Local distribution. Ndakan, Salcapa. Phenology. Flower: March, October. Fruit: October.

Specimens. *Harris* 1366, 1444, 4851.

Renealmia africana (K.Schum.) Benth. vel sp. aff.

Ref. Fl. Cam. 4: 38.

Habit. Herb to 3 m high.

Habitat. Terra firma and riparian forest. Distribution. Nigeria to Congo (Kinshasa). Local distribution. Bai Hoku, Ndakan, Kongana, Dzanga.
 Phenology. Flower: June, July, October, November. Fruit: January, May, October, November, December.

Note. It is not clear how this species differs from *R. congolana*, or from *R. macrocolea*. The material at Kew is not adequate to name this species with any certainty.

Specimens. Harris 102, 841, 1125, 1636, 2255, 2640, 3496, 3534, 3595, 3878, 4927, 5074, 5089, 5372; Fay 8664; Carroll 1113.

Renealmia cincinnata (K.Schum.) Baker

Ref. Koechlin, Fl. Cam. 4: 30. 1965.

Habit. Herb to 1.5 m high.

Habitat. Gilbertiodendron dewevrei forest, occasionally in mixed species terra firma forest. Distribution. Nigeria to Congo (Brazzaville). Local distribution. Ndakan. Phenology. Fruit: August, October, December.
 Specimens. Harris 10, 1343, 2423; Fay 8632, 8663.

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