

## 12. Lake Victoria drier peripheral semi-evergreen Guineo-Congolian rain forest (Fi)

### 12.1. Description

White (1983 p. 46) restricted semi-evergreen forests to forests where some canopy species are briefly deciduous, but not necessarily at the same time, and most members of the understorey are evergreen.

The Lake Victoria regional mosaic consists of floristically impoverished variants of the characteristic vegetation types of the Guineo-Congolian, Sudanian, Zambezian and Somalia-Masai regional centres of endemism, sometimes with an admixture from Afromontane species (White 1983 p. 181). Lake Victoria drier peripheral semi-evergreen Guineo-Congolian rain forest is therefore expected to be a floristically impoverished variant of drier peripheral semi-evergreen Guineo-Congolian rain forests described for the Guineo-Congolian region (White 1983 p. 79). Most of the species of secondary grassland and wooded grassland in the Lake Victoria region also occur in Guineo-Congolian secondary grassland (White 1983 p. 181).

Regional indicator species (characteristic species listed by White (1983) [1983] that were only provided for Lake Victoria drier peripheral semi-evergreen Guineo-Congolian rain forest and no other Lake Victoria forest type) that were listed as characteristic species for one or several national maps include *Alstonia boonei*, *Antiaris toxicaria*, *Chrysophyllum albidum*, *Entandrophragma cylindricum*, *Entandrophragma utile*, *Holoptelea grandis*, *Khaya anthotheca*, *Khaya grandifoliola*, *Mildbraediendron excelsum*, *Milicia excelsa*, *Morus mesozygia*, *Piptadeniastrum africanum* and *Pycnanthus angolensis*.



Figure 12.1. Lake Victoria drier peripheral semi-evergreen Guineo-Congolian rain forest on Bukasa Island (Ssesse Islands, Uganda). Species shown include *Newtonia buchananii* and *Uapaca guineensis*. In the Uganda national map, this forest type was classified as *Piptadeniastrum - Uapaca* forests (C1). Thomas (1941, Fig. 2). Image obtained from URL: <http://www.jstor.org/stable/2256396>



Figure 12.2. Profile diagram of Ironwood forest in Budongo (Uganda). This forest type was classified as Lake Victoria drier peripheral semi-evergreen Guineo-Congolian rain forest in the VECEA map and as *Cynometra - Celtis* forest (D2) in the Uganda national map. Characteristic species include *Cynometra alexandri* ("Cyn" in the figure; ironwood) and *Celtis zenkeri* ("Cz" in the figure). Eggeling (1947, Fig. 9). Image obtained from URL: <http://www.jstor.org/stable/2256760>



Figure 12.3. Profile diagram of mixed forest in Budongo (Uganda). This forest type may represent a successional stage towards *Cynometra - Celtis* forest (D2; see Figure 11.2). Emergent species include: *Alstonia congensis* ("Ac"), *Khaya anthotheca* ("Kh") and *Mildbraediendron excelsum* ("Ml"). Eggeling (1947, Fig. 8). Image obtained from URL: <http://www.jstor.org/stable/2256760>.

## **12.2. Species composition**

(Please check the methodology and information from Volumes 2 - 5 for more details on how the information on species composition for the different manifestations of this potential natural vegetation type was compiled. In composition tables, "x" indicates that the species is expected to be present, "C" indicates that the species was identified as characteristic species and "f" indicates a species that was not listed in the documentation that we consulted although it is known to occur in the specific country).

Table 12. Species composition of Lake Victoria drier peripheral semi-evergreen Guineo-Congolian rain forest (Fi)

SPECIES	Regional status	Kenya	Tanzania	Uganda (LC1U subtype)	Uganda (LC2U subtype)	Uganda (LC3U subtype)	Uganda (LD1U subtype)	Uganda (LD2U subtype)	Uganda (LD3U subtype)	Uganda (LD4U subtype)
<i>Alstonia boonei</i>	indicator species			f	f	f	C	C	f	C
<i>Antiaris toxicaria</i>	indicator species	f	f	C	C	f	C	x	C	C
<i>Chrysophyllum albidum</i>	indicator species	f		f	C	C	C	x	f	f
<i>Entandrophragma cylindricum</i>	indicator species			f	C	f	f	C	f	f
<i>Entandrophragma utile</i>	indicator species			f	C	f	C	C	f	f
<i>Holoptelea grandis</i>	indicator species			f	x	f	C	C	f	f
<i>Khaya anthotheca</i>	indicator species		f	f	f	f	f	C	f	f
<i>Khaya grandifoliola</i>	indicator species			f	f	f	f	C	f	f
<i>Milbraediendendron excelsum</i>	indicator species			f	f	f	C	C	f	f
<i>Milicia excelsa</i>	indicator species	f	f	f	x	f	f	x	f	C
<i>Morus mesozygia</i>	indicator species	f	f	f	C	f	f	x	f	f
<i>Piptadeniastrum africanum</i>	indicator species			C	C	f	f	x	f	f
<i>Pycnanthus angolensis</i>	indicator species		f	C	C	f	f	x	f	f
<i>Cynometra alexandri</i>	characteristic species		f	f	f	f	f	C	f	f
<i>Entandrophragma angolense</i>	characteristic species	f	f	f	C	f	C	C	f	f
<i>Maesopsis eminii</i>	characteristic species	f	f	C	C	C	C	C	f	f
<i>Pouteria altissima</i>	characteristic species	f	f	f	C	C	f	x	f	f
<i>Albizia coriaria</i>		f	f	f	f	f	C	f	C	C
<i>Albizia glaberrima</i>		f	f	f	C	f	C	x	f	C
<i>Albizia grandibracteata</i>		f	f	f	C	f	C	C	C	C
<i>Albizia gummifera</i>		f	f	f	C	C	f	x	C	f
<i>Albizia zygia</i>		f	f	f	C	f	C	x	f	C
<i>Balanites wilsoniana</i>		f	f	f	x	f	f	C	f	f
<i>Beilschmiedia ugandensis</i>			f	f	x	f	f	x	f	f
<i>Blighia unijugata</i>		f	f	f	x	f	x	x	C	f
<i>Bombax buonopozense</i>				f	f	f	f	C	f	f
<i>Canarium schweinfurthii</i>			f	C	x	f	f	x	f	C
<i>Cassipourea ruwensoriensis</i>		f	f	f	f	x	f	x	f	f
<i>Celtis adolfi-fridericii</i>	characteristic genus			f	f	f	x	C	f	f
<i>Celtis africana</i>	characteristic genus	f	f	f	C	f	C	C	C	C
<i>Celtis gomphophylla</i>	characteristic genus	f	f	f	C	f	C	x	f	f
<i>Celtis mildbraedii</i>	characteristic genus	f	f	f	C	f	C	C	f	f
<i>Celtis philippensis</i>	characteristic genus	f	f	f	f	f	C	x	f	f
<i>Celtis zenkeri</i>	characteristic genus		f	f	C	f	C	C	f	C
<i>Chrysophyllum gorungosanum</i>		f	f	f	f	C	f	f	f	f
<i>Clausena anisata</i>		f	f	f	x	f	x	x	x	x
<i>Croton macrostachyus</i>		f	f	f	x	f	f	x	C	C
<i>Croton megalocarpus</i>		f	f	f	f	C	f	x	f	f
<i>Diospyros abyssinica</i>		f	f	f	x	x	C	x	f	x
<i>Dombeya kirkii</i>		f	f	f	f	x	x	x	f	f
<i>Dracaena fragrans</i>		f	f	x	x	f	x	f	f	f
<i>Entandrophragma excelsum</i>			f	f	x	C	f	f	f	f
<i>Erythrina excelsa</i>		f	f	f	x	f	f	x	f	f
<i>Erythrophleum suaveolens</i>		f	f	f	f	f	C	C	f	f
<i>Fagaropsis angolensis</i>		f	f	f	x	f	f	x	C	C
<i>Ficus mucoso</i>		f	f	f	C	f	f	x	f	f
<i>Flueggea virosa</i>		f	f	f	x	f	f	x	f	x
<i>Funtumia africana</i>		f	f	x	x	x	C	x	f	f
<i>Funtumia elastica</i>				f	f	f	C	x	f	f
<i>Hallea stipulosa</i>				f	x	f	f	x	f	f
<i>Harrisonia abyssinica</i>		f	f	f	f	f	f	f	x	f
<i>Lannea welwitschii</i>		f	f	f	x	f	f	x	f	f
<i>Lovoa swynnertonii</i>		f	f	f	x	C	f	x	f	f
<i>Lovoa trichilioides</i>			f	C	C	f	f	x	f	f
<i>Maesa lanceolata</i>		f	f	f	x	x	f	x	f	f
<i>Manilkara dawei</i>			f	f	x	f	f	x	f	f
<i>Margaritaria discoidea</i>		f	f	f	x	f	f	C	C	C
<i>Markhamia lutea</i>		f	f	f	x	f	x	x	C	C
<i>Mimusops bagshawei</i>		f	f	C	C	f	C	x	f	C
<i>Morinda lucida</i>			f	f	x	f	f	x	f	f
<i>Myrianthus arboreus</i>			f	f	f	f	f	x	f	f
<i>Nauclea diderrichii</i>				f	f	f	f	x	f	f
<i>Newtonia buchananii</i>		f	f	C	f	C	f	x	f	f
<i>Olea capensis</i>		f	f	f	f	C	f	C	C	f

SPECIES	Regional status	Kenya	Tanzania	Uganda (LC1U subtype)	Uganda (LC2U subtype)	Uganda (LC3U subtype)	Uganda (LD1U subtype)	Uganda (LD2U subtype)	Uganda (LD3U subtype)	Uganda (LD4U subtype)
<i>Parinari excelsa</i>			f	f	C	C	f	x	f	f
<i>Pleiocarpa pycnantha</i>		f	f	f	x	x	f	x	f	f
<i>Polyscias fulva</i>		f	f	x	x	x	f	x	C	f
<i>Prunus africana</i>		f	f	f	x	C	f	x	C	C
<i>Pseudospondias microcarpa</i>		f	f	C	x	f	f	x	f	C
<i>Pterolobium stellatum</i>		f	f	f	x	f	x	x	f	f
<i>Pterygota mildbraedii</i>			f	f	f	f	f	C	f	f
<i>Raphia farinifera</i>	(palm species)	f	f	f	x	f	f	x	f	f
<i>Rauvolfia vomitoria</i>			f	f	x	f	f	x	f	f
<i>Schrebera arborea</i>		f	f	f	f	f	C	C	f	f
<i>Scutia myrtina</i>		f	f	f	f	f	x	x	f	x
<i>Shirakiopsis elliptica</i>		f	f	f	x	C	f	x	C	C
<i>Strombosia scheffleri</i>		f	f	f	x	C	f	x	f	f
<i>Strychnos mitis</i>		f	f	f	x	f	C	C	f	f
<i>Symphonia globulifera</i>			f	C	x	C	f	x	f	f
<i>Synsepalum brevipes</i>		f	f	C	x	f	x	x	f	f
<i>Tabernaemontana pachysiphon</i>		f	f	x	x	f	f	x	f	f
<i>Trema orientalis</i>		f	f	f	x	x	f	x	f	f
<i>Trichilia dregeana</i>		f	f	C	x	f	f	C	f	f
<i>Trilepisium madagascariense</i>		f	f	x	x	f	C	x	f	f
<i>Uapaca guineensis</i>	(one of the more important species of Lake Victoria swamp forest)		f	C	f	f	f	f	f	f
<i>Vepris nobilis</i>		f	f	f	x	f	C	x	x	C
<i>Vernonia amygdalina</i>		f	f	f	x	f	f	x	x	f
<i>Vernonia auriculifera</i>		f	f	f	f	f	f	f	x	C
<i>Warburgia ugandensis</i>		f	f	f	f	f	C	x	f	f
<i>Xylopia aethiopica</i>		f	f	x	f	f	f	x	f	f
<i>Zanthoxylum gillettii</i>		f	f	f	x	f	f	x	f	f

# 13. Zanzibar-Inhambane lowland rain forest (Fo)

## 13.1. Description

Zanzibar-Inhambane lowland rain forest has a main canopy that is almost evergreen and up to 20 m high. Emergents are 40 m or taller. This forest differs from Guineo-Congolian rain forests in greater degrees of bud protection, less developed drip-tips of leaves and low numbers of epiphytes (White 1983 p. 186).

Zanzibar-Inhambane lowland rain forests (Fo) differ from Zanzibar-Inhambane transitional rain forests (Fg) by occurring at lower altitudes (< 900 m) and having no admixture of Afromontane species (White 1983 p. 186). Zanzibar-Inhambane lowland rain forests were formerly extensively developed along the lower parts of the eastern highlands arc (especially the Nguru, Uluguru and Usambara Mts. of Tanzania), but only small fragments remain. Similar forests occur further inland as exclaves of the Zanzibar-Inhambane floristic region in other floristic regions such as on the Malawi Hills (within the Zambezian region) or near Tavetta (within the Somalia-Masai region; its presence is a result from the high water table in that location<sup>5</sup>); White 1983 p. 186).

Regional indicator species (characteristic species listed by White (1983) [1983] that were only provided for Zanzibar-Inhambane lowland rain forest and no other Zanzibar-Inhambane forest type) that were listed as characteristic species for one or several national maps ('indicators', see section 14.2) only include *Burttavya nyasica*, *Khaya anthotheca* and *Pouteria pseudoracemosa*. Most of the other characteristic species listed by White were also listed as characteristic species for other Zanzibar-Inhambane forest types (see section 14.2).

5: Dale (1939) mapped two patches of forests near Tavetta (and north of Lake Jipe) and classified these as "lowland evergreen edaphic forest". He describes them as forests that are unique in Kenya, but are similar in composition with the Lower Pare forests in Tanganyika and have also affinities with the S. Digo forests on the coast. These forests already were of small extent (not more than two square miles [~ 5 km<sup>2</sup>]) and occurred on volcanic ash in the vicinity of streams and rivers. Based on the description of the high water table, an alternative classification method could be as swamp forest (fs).

## **13.2. Species composition**

(Please check the methodology and information from Volumes 2 - 5 for more details on how the information on species composition for the different manifestations of this potential natural vegetation type was compiled. In composition tables, "x" indicates that the species is expected to be present, "C" indicates that the species was identified as characteristic species and "f" indicates a species that was not listed in the documentation that we consulted although it is known to occur in the specific country).

Table 13. Zanzibar-Inhambane lowland rain forest (Fo)

SPECIES	Regional status	Malawi	Tanzania
<i>Burttdavya nyasica</i>	indicator species	C	f
<i>Khaya anthotheca</i>	indicator species	C	C
<i>Pouteria pseudoracemosa</i>	indicator species (very local)		C
<i>Antiaris toxicaria</i>	characteristic species		f
<i>Cordyla africana</i>	characteristic species	x	f
<i>Diospyros mespiliformis</i>	characteristic species	C	f
<i>Lovoa swynnertonii</i>	characteristic species		f
<i>Maranthes goetzeniana</i>	characteristic species		f
<i>Milicia excelsa</i>	characteristic species	C	C
<i>Newtonia buchananii</i>	characteristic species	C	f
<i>Parkia filicoidea</i>	characteristic species	C	C
<i>Ricinodendron heudelotii</i>	characteristic species		C
<i>Sterculia appendiculata</i>	characteristic species	f	f
<i>Terminalia sambesiaca</i>	characteristic species	C	C
<i>Albizia adianthifolia</i>	not characteristic	C	f
<i>Anthocleista grandiflora</i>		C	C
<i>Blighia unijugata</i>		x	f
<i>Bombax rhodognaphalon</i>		C	C
<i>Brachystegia spiciformis</i>		C	f
<i>Calodendrum capense</i>		x	f
<i>Celtis africana</i>		x	f
<i>Celtis gomphophylla</i>		C	f
<i>Croton sylvaticus</i>		C	f
<i>Diospyros abyssinica</i>	not characteristic	C	f
<i>Dovyalis macrocalyx</i>		x	f
<i>Ekebergia capensis</i>		x	f
<i>Englerophytum natalense</i>		x	C
<i>Erythrophleum suaveolens</i>	not characteristic	C	C
<i>Ficus exasperata</i>		x	f
<i>Ficus sur</i>		C	f
<i>Ficus thonningii</i>		C	
<i>Ficus vallis-choudae</i>	not characteristic	C	f
<i>Filicium decipiens</i>		x	C
<i>Funtumia africana</i>	not characteristic	C	C
<i>Garcinia buchananii</i>		x	C
<i>Harrisonia abyssinica</i>		x	f
<i>Landolphia buchananii</i>		x	
<i>Landolphia kirkii</i>		x	f
<i>Lecaniodiscus fraxinifolius</i>		x	f
<i>Macaranga capensis</i>	not characteristic	x	f
<i>Margaritaria discoidea</i>		x	f
<i>Olyra latifolia</i>			C
<i>Oreobambos buchwaldii</i>	(bamboo species indigenous to Africa)	x	
<i>Parinari excelsa</i>		f	C
<i>Phoenix reclinata</i>	(palm species)	x	f



SPECIES	Regional status	Malawi	Tanzania
<i>Pterocarpus tinctorius</i>		C	f
<i>Rauvolfia caffra</i>	not characteristic	C	f
<i>Saba comorensis</i>		x	
<i>Shirakiopsis elliptica</i>		x	C
<i>Sorindeia madagascariensis</i>		C	C
<i>Synsepalum brevipes</i>	not characteristic	x	f
<i>Syzygium guineense</i>		x	f
<i>Tabernaemontana pachysiphon</i>		x	C
<i>Treculia africana</i>	not characteristic	f	C
<i>Trichilia dregeana</i>		C	f
<i>Trilepisium madagascariense</i>	not characteristic	C	C
<i>Zanha golungensis</i>		C	C

# 14. Zanzibar-Inhambane undifferentiated forest (Fp)

## 14.1. Description

White (1983) reserved the term of “undifferentiated forests” to forests that undergo rapid and kaleidoscopic changes in structure and species composition over short distances (White 1983 p. 47).

A distinction can be made between moister and drier variants of Zanzibar-Inhambane undifferentiated forest:

The moister variants have a main canopy at 15 to 20 m with emergents of 30 to 35 m. Many of the canopy species are briefly deciduous, although not concurrently, but appreciably more deciduous than semi-evergreen lowland rain forests (e.g., Lake Victoria drier peripheral semi-evergreen Guineo-Congolian rain forest [Fi]). The floristically richest types of moister variants of Zanzibar-Inhambane undifferentiated forests occur in Kenya and northern Tanzania (White 1983 p. 187).

- The drier forest variants are floristically more diverse than the moister variants. Most of the larger tree species are locally dominant or co-dominant and sometimes gregarious. The drier forests cover a larger area than the moister forests and also extend further to the north and south (White 1983 p. 187).

Regional indicator species (characteristic species listed by White (1983) [1983] that were only provided for Zanzibar-Inhambane undifferentiated forest and no other Zanzibar-Inhambane forest type) that were listed as characteristic species for one or several national maps can be further classified as characteristic species only listed for moister forest variants, only listed for drier forest variants or listed for both moister and drier variants:

- Characteristic species for moister forest variants: *Albizia adianthifolia*, *Apodytes dimidiata* (also characteristic of Afromontane undifferentiated forest [Fbu], Afromontane dry transitional forest [Fh] and Lake Victoria transitional rain forest [Ff]), *Bombax rhodognaphalon*, *Celtis philippensis*, *Cola clavata*, *Diospyros abyssinica* (also a characteristic species of Afromontane rain forest [Fa] and Afromontane dry transitional forest [Fh]), *Erythrina saculeuxii*, *Erythrophleum suaveolens*, *Fernandoa magnifica*, *Ficus vallis-choudae*, *Inhambanella henriquesii*, *Lannea welwitschii*, *Malacantha alnifolia*, *Mimusops aedificatoria*, *Nesogordonia holtzii*, *Paramacrolobium coeruleum*, *Synsepalum brevipes* and *Xylophia parviflora*.
- Characteristic species for drier forest variants: *Acacia robusta*, *Albizia petersiana*, *Brachylaena huillensis*, *Cassipourea euryoides*, *Cussonia zimmermannii*, *Cynometra webberi*, *Manilkara sulcata*, *Oldfieldia somalensis*, *Pleurostylia africana*, *Scorodophloeus fischeri*, *Tamarindus indica* and *Warneckea sansibarica*.

- Characteristic species both for moister and drier forest variants:  
*Azelia quanzensis*, *Balanites wilsoniana*, *Combretum schumannii*, *Hymenaea verrucosa*, *Julbernardia magnistipulata*, *Manilkara sansibarensis* and *Newtonia paucijuga*.

More information on coastal forests can be obtained from URL <http://coastalforests.tfcg.org/> (last accessed June 2011).

## 14.2. Species composition

(Please check the methodology and information from Volumes 2 - 5 for more details on how the information on species composition for the different manifestations of this potential natural vegetation type was compiled. In composition tables, "x" indicates that the species is expected to be present, "C" indicates that the species was identified as characteristic species and "f" indicates a species that was not listed in the documentation that we consulted although it is known to occur in the specific country).

Table 14. Species composition of Zanzibar-Inhambane undifferentiated forest (Fp)

SPECIES	Regional status				
		Coast (FpIC subtype)	Coast (FpαC subtype)	Coast (FpμC subtype)	Coast (secondary W5C subtype)
<i>Acacia robusta</i>	indicator species (drier forest variants)	f	x		
<i>Azelia quanzensis</i>	indicator species (moister and drier forest variants)	C	C	f	
<i>Albizia adianthifolia</i>	indicator species (moister forest variants)	C	C	f	
<i>Albizia petersiana</i>	indicator species (drier forest variants)	C	C		
<i>Apodytes dimidiata</i>	indicator species (moister forest variants)			f	
<i>Balanites wilsoniana</i>	indicator species (moister and drier forest variants)		C	f	
<i>Bombax rhodognaphalon</i>	indicator species (moister forest variants)		C	C	
<i>Brachylaena huillensis</i>	indicator species (drier forest variants)	x	C		
<i>Cassipourea euryoides</i>	indicator species (drier forest variants)	x	C		
<i>Celtis philippensis</i>	indicator species (moister forest variants)		x	C	
<i>Cola clavata</i>	indicator species (moister forest variants)		C	f	
<i>Combretum schumannii</i>	indicator species (moister and drier forest variants)		C	x	
<i>Cussonia zimmermannii</i>	indicator species (drier forest variants)	f	C	C	
<i>Cynometra webberi</i>	indicator species (drier forest variants)	C	x		
<i>Diospyros abyssinica</i>	indicator species (moister forest variants, but very rare)		x	C	
<i>Erythrina sacleuxii</i>	indicator species (moister forest variants)	C	x	x	
<i>Erythrophleum suaveolens</i>	indicator species (moister forest variants)	C	C	C	
<i>Fernandoa magnifica</i>	indicator species (moister forest variants)		C	C	
<i>Ficus vallis-choudae</i>	indicator species (moister forest variants)			f	
<i>Hymenaea verrucosa</i>	indicator species (moister and drier forest variants)	C	C	x	
<i>Inhambanella henriquesii</i>	indicator species (moister forest variants)		C	f	
<i>Julbernardia magnistipulata</i>	indicator species (moister and drier forest variants)	C	C	x	
<i>Lannea welwitschii</i>	indicator species (moister forest variants)		x	f	
<i>Malacantha alnifolia</i>	indicator species (moister forest variants)			f	
<i>Manilkara sansibarensis</i>	indicator species (moister and drier forest variants)	x	C	f	
<i>Manilkara sulcata</i>	indicator species (drier forest variants)	x	C		
<i>Mimusops aedificatoria</i>	indicator species (moister forest variants)			x	
<i>Nesogordonia holtzii</i>	indicator species (moister forest variants)	x	C	x	
<i>Newtonia paucijuga</i>	indicator species (moister and drier forest variants)	f	C	C	
<i>Oldfieldia somalensis</i>	indicator species (drier forest variants)	x	x		
<i>Paramacrolobium coeruleum</i>	indicator species (moister forest variants)	C	x	x	
<i>Pleurostylia africana</i>	indicator species (drier forest variants)		x		
<i>Scorodophloeus fischeri</i>	indicator species (drier forest variants)	C	C	C	
<i>Synsepalum brevipes</i>	indicator species (moister forest variants)	x	C	C	
<i>Tamarindus indica</i>	indicator species (drier forest variants)		C		
<i>Warneckea sansibarica</i>	indicator species (drier forest variants)	f	f		
<i>Xylopia parviflora</i>	indicator species (moister forest variants)		C	C	
<i>Antiaris toxicaria</i>	characteristic species (moister forest variants)		C	C	
<i>Cordyla africana</i>	characteristic species (moister forest variants)		C	C	
<i>Diospyros mespiliformis</i>	characteristic species (moister forest variants)		C	x	
<i>Lovoa swynnertonii</i>	characteristic species (moister forest variants)		x	x	
<i>Macaranga capensis</i>	characteristic species (moister forest variants)		x	f	
<i>Milicia excelsa</i>	characteristic species (moister and drier forest variants)		C	C	x
<i>Parkia filicoidea</i>	characteristic species (moister forest variants)		x	C	
<i>Ricinodendron heudelotii</i>	characteristic species (moister forest variants)	x	C	C	
<i>Sterculia appendiculata</i>	characteristic species (moister and drier forest variants)		C	C	x
<i>Terminalia sambesiaca</i>	characteristic species (moister forest variants)		C	x	
<i>Trilepisium madagascariense</i>	characteristic species (moister and drier forest variants)		C	x	
<i>Acacia polyacantha</i>			C		
<i>Acacia senegal</i>	(secondary grassland and wooded grassland)				x
<i>Adansonia digitata</i>	probably introduced by humans and does not regenerate under a closed forest canopy		C		x
<i>Albizia glaberrima</i>		x	C	x	
<i>Albizia gummifera</i>		x	C	x	
<i>Albizia versicolor</i>			C		
<i>Annona senegalensis</i>	(secondary grassland and wooded grassland)				x
<i>Anthocleista grandiflora</i>			C	C	
<i>Antidesma venosum</i>	(secondary grassland and wooded grassland)				x
<i>Bersama abyssinica</i>			C	x	
<i>Blighia unijugata</i>			x	C	
<i>Borassus aethiopicum</i>	(secondary grassland and wooded grassland)				x
<i>Brachystegia spiciformis</i>			C		

SPECIES	Regional status	Coast (FpIC subtype)	Coast (FpdC subtype)	Coast (FpmC subtype)	Coast (secondary WsC subtype)
<i>Celtis gomphophylla</i>			C	f	
<i>Celtis mildbraedii</i>			x	x	
<i>Crossopteryx febrifuga</i>	(secondary grassland and wooded grassland)				x
<i>Croton sylvaticus</i>			C	x	
<i>Dalbergia melanoxylon</i>	(secondary grassland and wooded grassland)				x
<i>Dialium orientale</i>			C		
<i>Dichrostachys cinerea</i>	(secondary grassland and wooded grassland)				x
<i>Ekebergia capensis</i>		x	C	C	
<i>Elaeis guineensis</i>	(palm species)		x	C	
<i>Encephalartos hildebrandtii</i>	cycad species that is locally plentiful in drier forest variants		f		
<i>Englerophytum natalense</i>				C	
<i>Fagaropsis angolensis</i>			C		
<i>Ficus sur</i>			C		
<i>Flacourtia indica</i>	(secondary grassland and wooded grassland)		C		x
<i>Funtumia africana</i>	not characteristic		C	C	
<i>Garcinia buchananii</i>		x	C		
<i>Garcinia livingstonei</i>			C	x	
<i>Harrisonia abyssinica</i>	(secondary grassland and wooded grassland)				x
<i>Hyphaene compressa</i>	(secondary grassland and wooded grassland, palm species)				x
<i>Khaya anthotheca</i>	not characteristic	x	C	C	
<i>Lannea schweinfurthii</i>	(secondary grassland and wooded grassland)		C		x
<i>Lecaniodiscus fraxinifolius</i>			C	x	
<i>Markhamia obtusifolia</i>		x	x		
<i>Markhamia zanzibarica</i>			C		
<i>Maytenus senegalensis</i>	(secondary grassland and wooded grassland)				x
<i>Mimusops obtusifolia</i>			C		
<i>Monodora grandidieri</i>			C		
<i>Newtonia buchananii</i>	not characteristic	C	C	C	
<i>Parinari excelsa</i>			C		
<i>Piliostigma thonningii</i>	(secondary grassland and wooded grassland)				x
<i>Pterocarpus tinctorius</i>			C		
<i>Sclerocarya birrea</i>	(secondary grassland and wooded grassland)				x
<i>Securidaca longipedunculata</i>	(secondary grassland and wooded grassland)				x
<i>Sideroxylon inerme</i>	not characteristic		C		
<i>Sorindeia madagascariensis</i>		x	C	C	
<i>Stereospermum kunthianum</i>	(secondary grassland and wooded grassland)				x
<i>Strychnos henningsii</i>		x	C		
<i>Strychnos mitis</i>	not characteristic		x	x	
<i>Strychnos spinosa</i>	(secondary grassland and wooded grassland)				x
<i>Syzygium cordatum</i>			C		
<i>Syzygium guineense</i>			C		
<i>Tabernaemontana pachysiphon</i>			C	C	
<i>Trema orientalis</i>			C		
<i>Trichilia emetica</i>			C	C	
<i>Vitex doniana</i>			x	C	
<i>Vitex mombassae</i>	(secondary grassland and wooded grassland)				x
<i>Zanha golungensis</i>			x	C	
<i>Zanthoxylum chalybeum</i>			C		
<i>Ziziphus pubescens</i>			C		

# 15. Zanzibar-Inhambane scrub forest (Fq)

## 15.1. Description

Zanzibar-Inhambane scrub forest forms a quasi-continuous belt that separates the forests of the coastal region (*i.e.* Zanzibar-Inhambane undifferentiated forest [Fp]) from the bushlands of the interior (*i.e.* especially deciduous bushland [Bd]). This forest reaches the Kenyan coast between Malindi and Lamu, where the rainfall is lower than elsewhere, and extends to southern Tanzania. *Diospyros cornii* forms a discontinuous upper canopy of 9 to 15 m high. *Manilkara mochisia* is an almost constant associate, but is less plentiful. In many places, scrub forest has been degraded and converted into secondary deciduous bushland (White 1983 p. 188). *Diospyros cornii* and *Manilkara mochisia* are also emergent trees on termite mounds within Zanzibar-Inhambane edaphic grassland (White 1983 p. 189).

The annual rainfall is between 500 and 750 mm (White 1983 p. 188). Besides the dominant *Diospyros cornii* and *Manilkara mochisia*, regional indicator species (characteristic species listed by White (1983) [1983] that were only provided for Zanzibar-Inhambane scrub forest and no other Zanzibar-Inhambane forest types) that were listed as characteristic species for the national maps include *Adenia globosa*, *Bivinia jalbertii*, *Catunaregam nilotica*, *Croton pseudopulchellus*, *Diospyros consolatae*, *Dobera glabra* (abundant especially where the water-table is near the surface), *Euclea natalensis*, *Euclea racemosa*, *Euphorbia candelabrum* (rare), *Euphorbia grandicornis*, *Grandidiera boivinii*, *Haplocoelum foliolosum*, *Haplocoelum inoploeum*, *Newtonia erlangeri* (only in northern scrub forests), *Ochna thomasiana*, *Sideroxylon inerme*, *Spirostachys venenifera*, *Suregada zanzibariensis*, *Thespesia danis* and *Thylachium africanum*.

## 15.2. Species composition

(Please check the methodology and information from Volumes 2 - 5 for more details on how the information on species composition for the different manifestations of this potential natural vegetation type was compiled. In composition tables, "x" indicates that the species is expected to be present, "C" indicates that the species was identified as characteristic species and "f" indicates a species that was not listed in the documentation that we consulted although it is known to occur in the specific country).

Table 15. Species composition of Zanzibar-Inhambane scrub forest (Fq)

SPECIES	Regional status	Const
<i>Diospyros cornii</i>	dominant	D
<i>Manilkara mochisia</i>	dominant	D
<i>Adenia globosa</i>	indicator species	x
<i>Bivinia jalbertii</i>	indicator species	f
<i>Catunaregam nilotica</i>	indicator species	f
<i>Croton pseudopulchellus</i>	indicator species	x
<i>Diospyros consolatae</i>	indicator species	x
<i>Dobera glabra</i>	indicator species (abundant especially where the water-table is near the surface)	f
<i>Euclea natalensis</i>	indicator species	x
<i>Euclea racemosa</i>	indicator species	f
<i>Euphorbia candelabrum</i>	indicator species (rare and often absent)	f
<i>Euphorbia grandicornis</i>	indicator species (dense communities in the understory)	f
<i>Grandidiera boivinii</i>	indicator species	f
<i>Haplocoelum foliolosum</i>	indicator species	f
<i>Haplocoelum inoploeum</i>	indicator species	x
<i>Newtonia erlangeri</i>	indicator species (only in northern forests)	x
<i>Ochna thomasiana</i>	indicator species	f
<i>Sideroxylon inerme</i>	indicator species	f
<i>Spirostachys venenifera</i>	indicator species	x
<i>Suregada zanzibariensis</i>	indicator species	x
<i>Thespesia danis</i>	indicator species	x
<i>Thylachium africanum</i>	indicator species	x
<i>Acacia brevispica</i>		x
<i>Acacia bussei</i>	secondary species	f
<i>Acacia mellifera</i>	secondary species	f
<i>Acacia nilotica</i>	secondary species	f
<i>Azelia quanzensis</i>	not characteristic	x
<i>Albizia adianthifolia</i>	not characteristic	x
<i>Albizia anthelmintica</i>	secondary species	x
<i>Albizia petersiana</i>	not characteristic	x
<i>Albizia versicolor</i>		x
<i>Allophylus rubifolius</i>		x
<i>Bombax rhodognaphalon</i>	not characteristic	x
<i>Boscia salicifolia</i>		x
<i>Brachylaena huillensis</i>	not characteristic	x
<i>Carissa spinarum</i>		x
<i>Combretum schumannii</i>	not characteristic	x
<i>Cordyla africana</i>	not characteristic	x
<i>Dalbergia nitidula</i>		x
<i>Dialium orientale</i>		x
<i>Diospyros mespiliformis</i>	not characteristic	x
<i>Euphorbia tirucalli</i>		x
<i>Garcinia livingstonei</i>		x
<i>Grewia villosa</i>		x
<i>Harrisonia abyssinica</i>		x
<i>Hymenaea verrucosa</i>	not characteristic	x
<i>Hyphaene compressa</i>	secondary species (palm species)	f
<i>Lecaniodiscus fraxinifolius</i>		x
<i>Manilkara sansibarensis</i>	not characteristic	x
<i>Manilkara sulcata</i>	not characteristic	x
<i>Markhamia obtusifolia</i>		x
<i>Milicia excelsa</i>	not characteristic	x
<i>Olea europaea</i>	( <i>Olea europaea</i> ssp. <i>cuspidata</i> , synonym: <i>Olea africana</i> )	x
<i>Sorindeia madagascariensis</i>		x
<i>Strychnos henningsii</i>		x
<i>Strychnos innocua</i>		x
<i>Syzygium cordatum</i>		x
<i>Syzygium guineense</i>		x
<i>Terminalia prunioides</i>		x
<i>Terminalia spinosa</i>	indicator of disturbance	f
<i>Vitex doniana</i>		x
<i>Vitex payos</i>		x
<i>Zanthoxylum chalybeum</i>		x