
VINE FORESTS AND THICKETS OF
STREAMS AND SWAMPS

ALL SOIL TYPES

Types 1 to 15

Type 1 Low closed seasonal swamp forest in swales of low dune-swale complexes

Reference Sites

Jeannie River sand mass. Site 1.

Floristics

(°denotes obligate deciduous species; #denotes listed rare and threatened species; *denotes exotic species)

Canopy (in order of cover)

Dillenia alata, *Deplanchea tetraphylla*, *Pandanus tectorius* var. *pedunculatus*, *Melaleuca dealbata*.

Understorey

Melastoma affine, *Atractocarpus sessilis*, *Acacia crassicarpa*, *Alyxia spicata*, *Syzygium angophoroides*, *Celtis paniculata*.

Groundcover

Lygodium flexuosum, *Lindsaea ensifolia*, *Leptocarpus ramosus*.

Description

Largely confined to stranded dune systems where the dominant surrounding vegetation is sclerophyll forest and woodland. It is a forest type characteristic of shallow swales and seasonally swampy ground, and is nowhere extensive, being confined to linear patches rarely more than a hectare in size in coastal situations between Cooktown and Cape Melville.

Type 2 Low closed transitional forest on deep organic sand in seasonally wet depressions

Reference Sites

Jeannie River sand mass. Site 2.

Floristics

(°denotes obligate deciduous species; #denotes listed rare and threatened species; *denotes exotic species)

Canopy (in order of cover)

Xanthostemon crenulatus, *Lophostemon suaveolens*, *Deplanchea tetraphylla*.

Understorey

Celtis paniculata, *Atractocarpus sessilis*, *Dillenia alata*, *Exocarpus latifolius*, *Canthium odoratum*, *Polyalthia nitidissima*, *Acacia crassicarpa*, *Psychotria polioSTEMMA*.

Groundcover

Lomandra banksii, *Schizaea dichotoma*.

Description

This is a simple closed forest with one tree (*Xanthostemon crenulatus*) forming over seventy percent of the canopy. There is a sparse understorey and very sparse groundcover. It is a type that appears to be near the climax of a transition from sclerophyll forest to rainforest. It is likely that fire will occasionally invade this type wherever it occurs. Small patches were observed in a number of localities in the plus 1500 millimetre rainfall zone, including small areas in the Cape Grenville area. It was even noted well inland in the lower catchment of the Archer River. There is considerable variety in the numerous intergrades between this type and sclerophyll swamp forest.

Right:
(Site 2) Low closed transitional forest on deep organic sand in dune swale with *Xanthostemon crenulatus* and *Dillenia alata* (Photo: Peter Stanton).



Type 3 Seasonal swamp forest with feather palms on gleyed podzolic soils with pronounced gilgai (mound and depression) development

Reference Sites

Cooktown to Cape Melville. Site 7, Site 96, Site 97.

Floristics

(°denotes obligate deciduous species; #denotes listed rare and threatened species; *denotes exotic species)

Canopy

Archontophoenix alexandrae, *Dillenia alata*, *Syzygium angophoroides*, **Terminalia sericocarpa*, *Buchanania arborescens*, *Calophyllum sil*, *Ilex arnhemensis* subsp. *ferdinandi*, *Syzygium tierneyanum*, occasional emergents of *Melaleuca leucadendra*.

Subcanopy

Tristaniopsis exiliflora (on drainage lines), *Polyscias australiana*.

Understorey

Timonius timon, *Glochidion sumatranum*, *Calophyllum sil*, *Dillenia alata*, *Hydriastele wendlandiana*, *Mischocarpus exangulatus*, *Rhodomyrtus trineura* subsp. *capensis*, *Syzygium angophoroides*, *Archontophoenix alexandrae*, *Cleistanthus apodus*, *Ficus congesta*, *Atractocarpus sessilis*, *Stenochlaena palustris* (climbing fern).

Lianes and Epiphytes

Flagellaria indica, *Asplenium australianum*, *Smilax australis*, *Stenochlaena palustris*, *Lygodium flexuosum*, *Melodinus australis*, *Alyxia spicata*.

Groundcover

Nephrolepis hirsutula, *Lindsaea repens*.

Description

This is structurally a simple forest with relatively few canopy species. The palm *Archontophoenix alexandrae* often dominates. Trees and shrubs are largely confined to the surface mounds with water occupying the depressions for much of the year. Mound and depression development of the soil surface may be extreme with up to a metre height difference between the top of the depression and the bottom of the mound. All sites examined were on Hope Vale Aboriginal Lands between Cape Melville and Cooktown. It is not a common type elsewhere.

Right:
(Site 7) Seasonal swamp vine forest on water logged sandy loam with *Syzygium angophoroides*, *Melicope elleryana*, *Archontophoenix alexandrae* and *Melaleuca leucadendra*, *M. dealbata* emergents. In the foreground is an unvegetated depression while the mound in the background supports dense palms such as *Hydrastele wendlandiana* and *Archotophoemix alexandrae* (Photo: Peter Stanton).



Type 4 Simple evergreen notophyll vine forest on recent alluvium from sandstone. Soils are uniform brown loams with occasional gilgai formation

Reference Sites

Cooktown to Starcke River. Site 10, Site 93, Site 99.

Floristics

(°denotes obligate deciduous species; #denotes listed rare and threatened species; *denotes exotic species)

Canopy

Cryptocarya hypospodia, *Acacia polystachya*, *Beilschmiedia obtusifolia*, *Blepharocarya involucrigera*, *Cryptocarya triplinervis* var. *riparia*, *Acmenospermum claviflorum*, *Helicia australasica*, *Mallotus polyadenos*, *Syzygium cormiflorum*.

Understorey

Glycosmis trifoliata, *Mallotus ficifolia*, *Atractocarpus sessilis*, *Myristica globosa* subsp. *muelleri*, *Austromyrtus* sp. (Eumangin Creek), *Cyclophyllum coprosmoides*, *Chionanthus ramiflora*, *Cleistanthus apodus*, *Memecylon pauciflorum* var. *pauciflorum*, *Mischocarpus lachnocarpus*.

Lianes and Epiphytes

Flagellaria indica, *Austrosteenisia blackii*, *Melodinus australis*.

Groundcover

Seedlings of canopy and understorey species.

Description

The forests of this type are confined to an area between Cooktown and the Starcke River. They are found on small areas of stream alluvium of shallow depth and relatively low fertility. The forests consequently are of only moderate stature with canopy height 14 to 24 metres, and simple in species composition. They are obviously young forests as indicated by the occasional remnants of former sclerophyll communities, characterised by such species as *Lophostemon suaveolens*, *Acacia polystachya*, and *Melaleuca leucadendra*. On their borders, they commonly have well developed transition zones indicating current expansion of the closed forest. One site (Site 93) was also found to have suffered recent fire encroachment along its edges, with evidence of past encroachment deeper within the forest.

Right:
(Site 99) Simple evergreen mesophyll/notophyll vine forest on seasonally flooded riverine alluvium in the Starcke area with *Buchanania arborescens*, *Cryptocarya triplinervis* var. *riparia* and *Beilschmiedia obtusifolia* dominating the canopy (Photo: Peter Stanton).



Type 5 Tall closed riverine vine forest with sclerophylls on river terraces with a strongly layered soil profile

Reference Sites

Lower Normanby River. Site 13.

Floristics

(°denotes obligate deciduous species; #denotes listed rare and threatened species; *denotes exotic species)

Emergents

Occasional *Melaleuca leucadendra* and *M. fluviatilis*.

Canopy

Mallotus polyadenos, *Melaleuca leucadendra*, *Syzygium forte* subsp. *potamophilum*.

Subcanopy

Frequent *Mallotus polyadenos* with occasional *Buchanania arborescens*, *Diospyros calycantha*, *Elaeocarpus arnhemicus* and **Vitex helogiton*.

Understorey

Barringtonia acutangula subsp. *acutangula*, *Cleistanthus apodus*.

Lianes and Epiphytes

Uncommon *Dendrobium bigibbum* and *Flagellaria indica*.

Groundcover

Nil.

Description

Restricted to the lower Normanby River where it is confined to the bed of the river and depositional areas in the concave sections of major bends. The development of the understorey is limited and groundcover is absent due to the extent and severity of seasonal flooding. Soils are multi-layered, consisting of deep banks of sand over layered clay-loams.

Right:
(Site 13, on lower Normanby River near Whiphandle Lagoon) Tall closed riverine vine forest on layered alluvial river terrace with *Syzygium forte* subsp. *potamophilum*, *Mallotus polyadenos*, and *Melaleuca* spp. Emergents (Photo: Peter Stanton).



Type 6 Very tall semi deciduous mesophyll/notophyll vine forests of seasonally flooded stream terraces and fan deposits

Reference Sites

Mclvor River, Rocky River, Pascoe River.

Site 41, Site 46, Site 56, Site 64, Site 137, Webb and Tracey sites 15, 20, 30, 500, 521.

Floristics

(°denotes obligate deciduous species; #denotes listed rare and threatened species; *denotes exotic species)

Emergents

**Ficus albipila*, #*Tetrameles nudiflora*, *Syzygium bamagense*, *Alstonia scholaris*.

Canopy

Albizia retusa, *Cryptocarya triplinervis* var. *riparia*, *Endiandra longipedicellata*, **Nauclea orientalis*, *Aleurites moluccana*, *Argyrodendron polyandrum*, *Castanospermum australe*, **Garuga floribunda* var. *floribunda*, #*Syzygium pseudofastigiatum*, *Beilschmiedia obtusifolia*, **Cordia dichotoma*, #*Margaritaria indica*, #*Tetrameles nudiflora*, *Cryptocarya rhodosperma*, *Syzygium bamagense*, *Alstonia scholaris*, *Buchanania arborescens*, **Canarium australicum*, **Millettia pinnata*, **Semecarpus australiensis*, **Terminalia sericocarpa*.

Subcanopy

**Miliusa horsfieldii*, *Myristica insipida*, *Pisonia umbellifera*.

Understorey

Ptychosperma macarthurii, *Ptychosperma elegans*, *Atractocarpus sessilis*, *Horsfieldia australiana*, #*Lunasia amara*, *Codiaeum variegatum* var. *moluccanum*, #*Lepidopetalum fructoglabrum*, *Glycosmis trifoliata*, *Mallotus* sp. (*ficifolius* ms.), #*Rinorea bengalensis*, *Dichapetalum timorense*, *Dimocarpus australianus*, *Prunus grisea* var. *grisea*, #*Ryticaryum longifolium*, *Streblus brunonianus*, #*Syzygium puberulum*, #*Cryptocarya burkiana*, #*Garcinia* sp. (L. J. Brass 19658), *Maniltoa lenticellata*, *Aglaia sapindina*, *Barringtonia acutangula* subsp. *acutangula*.

Lianes and Epiphytes

#*Calamus warburgii*, *Dischidia ovata*, *Flagellaria indica*, *Strychnos colubrina*, *Epipremnum pinnatum*, *Salacia disepala*.

Groundcover

Very limited in extent and number of species. Largely seedlings of the canopy and understorey.

Description

This is the tallest (with emergents to sixty metres) and one of the most aesthetically pleasing forests on Cape York Peninsula. A very open nature and the presence of large prominently buttressed trees complement its height. It is also one of the most species-rich forests with many rare and threatened species. It is found along the major streams from the Pascoe River south to the Rocky River, with minor occurrences on fan (or delta) deposits where smaller streams meet the coastline, and on the Mclvor River north of Cooktown.

Right:

(Site 56 – junction of Leo Creek and Nesbit River) An example of semi-deciduous mesophyll/notophyll vine forest on seasonally flooded alluvial terrace with *Castanospermum australe* and *Cordia dichotoma* dominating the canopy and occasional *Ficus albipila* and *Tetrameles nudiflora* emergents (Photo: D. G. Fell).



Type 7 Very tall semi-deciduous mesophyll/notophyll vine forest on the higher alluvial terraces of the larger perennial streams

Reference Sites

Claudie River. Sites 42, Site 94, Webb and Tracey site 523.

Floristics

(°denotes obligate deciduous species; #denotes listed rare and threatened species; *denotes exotic species)

Emergents

Alstonia scholaris, *Castanospermum australe*, *Dysoxylum arborescens*, #*Tetrameles nudiflora* (Iron Range area).

Canopy

Planchonella obovoidea, *Syzygium tierneyanum*, *Syzygium malaccense*, **Wrightia laevis* subsp. *millgar*, *Dysoxylum gaudichaudianum*, *Myristica muelleri*, *Alstonia scholaris*, **Neonauclea gordoniana*, **Miliusa horsfieldii*, *Castanospermum australe*, *Aleurites moluccana*, *Aglaia spectabilis* (Iron Range area).

Subcanopy

Beilschmiedia obtusifolia, *Garcinia warrenii*, *Pisonia umbellifera*.

Understorey

Aglaia sapindina, *Codiaeum variegatum* var. *moluccanum*, *Diospyros maritima*, *Garcinia* sp. (L.J. Brass 19658), *Glycosmis trifoliata*, #*Lunasia amara*, *Pandanus* sp., *Rinorea bengalensis*, *Dimorphocalyx australiensis*, *Atractocarpus sessilis*.

Lianes and Epiphytes

Tetracera nordtiana, *Rhamnella vitiensis*, *Piper* sp., *Carronia protensa*, *Strychnos colubrina*, *Epipremnum pinnatum*, *Rhaphidophora australasica*, Menispermaceae gen. sp. *indet* (DGF 3085), *Calamus warburgii*.

Groundcover

Bolbytis quoyana, *Geophila repens*.

Description

This type is separated from the structurally similar Type 6 by its occurrence in higher topographical situations and rare or less frequent flooding. Symptomatic of this is the absence of *Nauclea orientalis*, which tolerates higher water tables and favours areas of more frequent flooding. In the Iron Range area, these forests often adjoin Type 6, occurring between it and the lower slopes of hills. Its soils, in such locations are of mixed alluvial/colluvial origin. There are some limited occurrences of well-developed riverine forest along the upper reaches of the Normanby River. Although the nature of the forests in this area are generally known they were not visited during the course of this work. They appear to have none of the features of Type 7 forest, but are dominated by *Castanospermum australe*, and are structurally and floristically simpler than forests at the sites used to define this type. Further site specific sampling may reveal them to be a separate forest type.

Right:

(Site 94) Semi-deciduous notophyll vine forest on seasonally flooded riverine alluvium with *Alstonia scholaris*, *Dysoxylum gaudichaudianum* and *Syzygium malaccense* dominating the canopy.



Type 8 Riparian mesophyll vine forest of permanent small streams at the base of granite ranges

Reference Sites

Cape Melville, Rocky River, Claudie River. Site 52, Site 128.

Floristics

(°denotes obligate deciduous species; #denotes listed rare and threatened species; *denotes exotic species)

Canopy

Archontophoenix alexandrae (Cape Melville area only), *Buchanania arborescens*, *Carallia brachiata*, *Aleurites moluccana*, *Homalium circumpinnatum*, **Miliusa horsfieldii*, *Mimusops elengi*, **Nauclea orientalis*, *Syzygium tierneyanum*, **Vitex helogiton*.

Subcanopy

Garcinia warrenii, *Pisonia umbellifera*.

Understorey

Archidendron hendersonii (Cape Melville southwards), *Morinda citrifolia*, *Litsea glutinosa*, *Glycosmis trifoliata*, *Dimorphocalyx australiensis* (Rocky River northwards), *Mitrephora diversifolia*.

Lianes and Epiphytes

Scindapsus altissimus (Rocky River northwards), *Entada phaseoloides*, *Pisonia aculeata*, *Malasia scandens*, *Diplocyclos palmatus* var. *affinis*.

Groundcover

Ammania multiflora, *Commelina ensifolia*, *Dendrocnide cordata*, *Pteris tripartita*, **Axonopus compressus* (Cape Melville).

Description

This type is confined to narrow strips of sandy alluvium along permanent small streams issuing from the base of granite hills. These streams, during the dry season, quickly disappear in the deposits of the plain and this type is thus confined to the vicinity of the hills. Its range extends from south of the Claudie River to the Rocky River with isolated occurrences in the Cape Melville area. In structure, it varies from evergreen to semi-deciduous depending on the presence or otherwise of deciduous species such as *Nauclea orientalis*, *Vitex helogiton* and *Miliusa horsfieldii*.

Type 9 Evergreen mesophyll/notophyll vine forest often with conspicuous feather palms, of permanent swamps on coastal plain alluvium derived from sandstone

Reference Sites

Rocky River to Cape York. Sites 62, Site 89, Site 100, Site 110, Webb and Tracey site 12.

Floristics

(°denotes obligate deciduous species; #denotes listed rare and threatened species; *denotes exotic species)

Canopy

Archontophoenix tuckeri, *Gulubia costata*, *Blepharocarya involucrigera*, *Buchanania arborescens*, *Horsfieldia australiana*, *Syzygium angophoroides*, *Calophyllum sil*, *Maranthes corymbosa*, *Syzygium forte* subsp. *forte*, *Intsia bijuga*, *Macaranga polyadenia*.

Subcanopy

Pandanus zea, *Ternstroemia cherryi*, *Ptychosperma elegans*, *Rhodamnia spongiosa*, *Gmelina dalrympleana*.

Understorey

Pandanus sp., *Polyscias australiana*, *Atractocarpus sessilis*, *Syzygium leuhmannii*, *Chionanthus ramiflora*, *Cryptocarya cunninghamii*, *Dillenia alata*, *Garcinia dulcis*, *Halfordia kendack*, *Kibara rigidifolia*, *Licuala ramsayi*, *Mallotus polyadenos*, *Pouteria chartacea*, *Syzygium fibrosum*, *Cryptocarya bamagana*, *Haplostichanthus* sp. (Rocky River, P.I. Foster 10617), *Dictyoneura obtusa*, *Fagraea berteriana*, *Ficus copiosa*.

Lianes and Epiphytes

Tetracera daemaliana, *Strychnos colubrina*, *Hugonia jenkinsii*, *Hypserpa laurina*, *Calamus hollrungii*, *Epipremnum pinnatum*, *Rhaphidophora australasica*, *Stenochlaena palustris*, *Mucuna gigantea*, *Flagellaria indica*, *Calamus australis*, *Scindapsus altissimus*, *Drynaria sparsisora*, *Freycinetia excelsa*, *Bulbophyllum baileyi*.

Groundcover

Pandanus conicus, *Taenitis pinnata*, *Calamus warburghii*, *Pollia crispata*, *Scleria sumatrensis*.

Description

This type of forest is developed on alluvium derived from sandstone. It is found where a permanent watertable is provided by springs from sandstone aquifers, or seepage from coastal dunes, or in swampy drainage lines on the coastal plain. It occurs from near the tip of Cape York to the Rocky River. Soils are sands to sandy loams. The canopy is uneven and may reach forty metres in height. Deciduous species are rare.

Type 10 Low deciduous notophyll vine forest on seasonally flooded alluvial plains of silty clay loam soils

Reference Sites

Nesbit and Lockhart Rivers. Site 61.

Floristics

(°denotes obligate deciduous species; #denotes listed rare and threatened species; *denotes exotic species)

Canopy (in order of cover)

**Terminalia sericocarpa*, **Lagerstroemia archeriana*, **Dendrolobium umbellatum*, **Antidesma ghaesembilla*, **Cordia dichotoma*, *Barringtonia acutangula* subsp. *acutangula*, *Buchanania arborescens*.

Subcanopy

**Millettia pinnata*, **Gardenia* sp. (DGF 3458).

Understorey

Pavetta sp. (DGF 3456), *Diospyros fasciculosa*, *Berrya javanica*, *Jagera pseudorhus*, *Cryptocarya triplinervis* var. *riparia*, *Gardenia scabrella*, *Glycosmis trifoliata*, *Flacourtia* sp. (Shipton's Flat, L. W. Jessup + GJD 3200), *Harrisonia brownii*, *Mallotus philippensis*, *Lepidopetalum fructoglabrum*, *Miliusa horsfieldii*, *Austromyrtus* sp., *Strychnos lucida*, *Arytera bifoliolata*, *Cupaniopsis anacardioides*, *Ixora klanderiana*, *Rhodomyrtus macrocarpa*, *Casearia grewiifolia* subsp. *gelonioides*, *Canthium odoratum*, *Rhodamnia* sp. (Upper Massey Creek, L. S. Smith 11733).

Lianes and Epiphytes

Jasminum simplicifolium, *Pycnarrhena* sp., **Ziziphus oenopolia*, *Dendrobium discolor*.

Description

This is a simple forest of few species and low stature (canopy 8 to 18 metres). It is found in the Nesbit and Lockhart River valleys where it forms narrow strips between Type 6 forest and grassland into which it appears to be rapidly expanding. It is dominated by two deciduous species, *Terminalia sericocarpa* and *Lagerstroemia archeriana*. Groundcover is almost absent. In some situations *Buchanania arborescens* forms evergreen groves. Its outer edge to the grassland is often a dense thorny thicket of *Ziziphus oenopolia*. Soils are slightly alkaline silty clay loams on the surface, deepening to medium clay with mottling. This type has affinities to Type 13 but its wetter climatic situation favours the presence of *Terminalia sericocarpa* rather than the species *T. muelleri* or *T. subacroptera* of the drier central peninsula.

**Type 11 Semi-deciduous notophyll vine forest on seasonally flooded
riverain alluvial terraces**

Reference Sites

Lower Archer and Wenlock Rivers. Site 131, Webb and Tracey site 511.

Floristics

(°denotes obligate deciduous species; #denotes listed rare and threatened species; *denotes exotic species)

Canopy (in order of cover)

#*Pterocarpus* sp. (Archer River, B. P. Hyland 3078) *Syzygium bamagense*, *Grevillea baileyana*, **Lagerstroemia archeriana*, **Mallotus polyadenos*, *Beilschmiedia obtusifolia*, *Buchanania arborescens*, **Vitex helogiton*, **Strychnos lucida*, *Diospyros calycantha*, **Antidesma ghaesembilla*.

Subcanopy

Cupaniopsis anacardioides, *Austromyrtus floribunda*, *Diospyros hebecarpa*, *Mallotus polyadenos*, *Beilschmiedia obtusifolia*, *Alphitonia excelsa*.

Understorey

Glycosmis trifoliata, *Ixora klanderiana*, *Buchanania arborescens*, *Strychnos lucida*, *Cathormium umbellatum*, *Austromyrtus floribunda*, *Litsea glutinosa*, *Millettia pinnata*, *Beilschmiedia obtusifolia*, *Barringtonia calyptrata*, *Elaeocarpus arnhemicus*, *Cryptocarya exfoliata*, *Psychotria polioSTEMMA*, *Cleistanthus apodus*, *Croton arnhemicus*.

Lianes and Epiphytes

Flagellaria indica, **Ziziphus oenopolia*, *Abrus precatorius*, *Entada phaseoloides*, *Cyathostemma micranthum*, *Caesalpinia scortechinii*, *Uvaria rufa*.

Groundcover

Hypoestes floribunda, *Oplismenus burmanii*.

Description

The large canopy tree *Pterocarpus* sp. is endemic to Cape York Peninsula and is largely restricted to the type, which in turn, is confined to the Lower Archer and Wenlock Rivers. Along the Archer River where these forests are developed, the river has formed a broad floodplain, with numerous channels and associated islands and outer terraces. Type 11 forests are confined to outer alluvial terraces and the larger islands both situations being inundated at the highest levels of the regular seasonal flood. Soils in these situations are deep multi-layered sands to sandy loams. This type is illustrated in Plate 4.

Type 12 Transitional closed forest of the Archer River flood plain

Reference Sites

Lower Archer River. Site 132, Webb and Tracey sites 512, 513.

Floristics

(°denotes obligate deciduous species; #denotes listed rare and threatened species; *denotes exotic species)

Canopy (in order of cover)

Buchanania arborescens, *Acacia polystachya*, *Melaleuca dealbata*, *Corymbia clarksoniana*, *Erythrophloeum chlorostachys*.

Subcanopy

Livistona bentharii, **Vitex helogiton*, **Margaritaria indica*.

Understorey

Mallotus polyadenos, *Memecylon pauciflorum* var. *pauciflorum*, *Strychnos lucida*, *Ixora klanderiana*, *Psychotria polioSTEMMA*, *Cleistanthus apodus*, *Cryptocarya exfoliata*, *Litsea glutinosa*, *Millettia pinnata*, *Pterocarpus* sp. (Archer River, B. P. Hyland 3078), *Syzygium suborbiculare*, *Glycosmis trifoliata*, *Chionanthus ramiflora*, *Miliusa traceyi*, *Carallia brachiata*, *Dysoxylum acutangulum* subsp. *foveolatum*, *Cathormion umbellatum*.

Lianes and Epiphytes

Parsonsia sp. (DGF 4380), *Melodorum* sp. (Stone Crossing, L. W. Jessup 814), *Flagellaria indica*, *Parsonsia velutina*, *Smilax australis*, *Premna limbata*, *Abrus precatorius*.

Groundcover

Scleria sphacelata, **Urena lobata*, *Orthosiphon aristatus*.

Description

This type barely meets the definition of vine forest adopted in this report. It is however, in a state of rapid change that has already seen it move from open sclerophyll forest to its present condition of a closed forest dominated by *Buchanania arborescens* and *Acacia polystachya*, with other sclerophylls as minor components of the canopy. The passage and direction of change is evidenced by the presence of large rotting stumps of *Melaleuca* and invading saplings of the dominant tree from Type 11, *Pterocarpus* sp. This forest type is an integral part of the mobile rapidly evolving landscape of the Archer River flood plain at Archer Bend. It is evolving, under the influence of changing patterns of flood drainage and deposition, to a Type 11 forest.

Type 13 Deciduous notophyll/microphyll vine forest on anabranches of the Archer River at Archer Bend

Reference Sites

Lower Archer River. Site 135, Neldner and Clarkson sites ROK 53, ROK 55, ROK 63, ROK 64.

Floristics

(°denotes obligate deciduous species; #denotes listed rare and threatened species; *denotes exotic species)

Emergents

**Bombax ceiba* var. *leiocarpum*, **Canarium australianum*.

Canopy (in order of decreasing cover)

**Margaritaria indica*, **Lagerstroemia archeriana*, **Millettia pinnata*, **Canarium australianum*, **Terminalia muelleri*, **Miliusa traceyi*, **Wrightia pubescens* subsp. *penicillata*, **Croton arnhemicus*, **Larsenaikia ochreatea*, **Cathormion umbellatum*, **Trema tomentosa* var. *viridis*, **Strychnos lucida*.

Understorey

**Ziziphus oenopolia*, *Gardenia scabrella*, *Pavetta australiensis*, *Bursaria spinosa*, **Capparis arborea*, *Tabernaemontana orientalis*.

Lianes and Epiphytes

Dendrobium biggibum, *Abrus precatorius*, *Stephania japonica* var. *timorensis*, *Capparis sepiaria*.

Groundcover

Randia sp. (Coen, B. P. Hyland 14378 = DGF 2919 and 4397), **Sida acuta*, *Dicliptera spicata*, *Oplismenus* sp., *Cyathula prostrata*.

Description

This forest type along with Types 11 and 12 is part of a complex of open and closed forest patterns on the Archer River floodplain at Archer Bend. These complexes are aligned in the direction of stream flow and have an obvious direct relationship to the alluvial deposition patterns of past and present flood channels. Type 13 forests are confined to loam soils with high silt levels. A feature of the type is the occasional presence of emergent *Eucalyptus microtheca* (Coolabah Box) at the northern extremity of its range. This is part of the abundant evidence of rapidly changing vegetation patterns of the Archer River floodplain. In this case, Type 13 vegetation is expanding into *E. microtheca* woodland. A similar phenomenon is observable at Lakefield National Park, where Type 15 vine thicket is expanding into sites occupied by the closely related, narrowly endemic *Eucalyptus acroleuca*. Within the type there are (from site to site), significant differences in vegetation structure and the relative abundance of canopy species, reflecting small-scale variations in soil conditions.

Type 14 Deciduous notophyll vine thicket on gilgaied cracking clay soils

Reference Sites

Mid to lower Archer and Wenlock Rivers. Site 134, Neldner and Clarkson site ROK 67.

Floristics

(°denotes obligate deciduous species; #denotes listed rare and threatened species; *denotes exotic species)

Canopy (in order of decreasing cover)

**Terminalia muelleri*, **Lagerstroemia archeriana*, **Cochlospermum gillivraei*, **Croton arnhemicus*, **Margaritaria dubium-traceyi*, **Dendrolobium umbellatum*, **Bombax ceiba* var. *leiocarpum*, **Larsenaikia ochreatea*, **Premna dallachyana*, **Strychnos lucida*, *Pleurostyliia opposita*, *Gardenia scabrella*, *Dodonaea platyptera*, **Ziziphus oenopolia*.

Understorey

Grewia retusifolia, **Wrightia pubescens* subsp. *penicillata*, *Bursaria spinosa*, **Capparis arborea*, *Cupaniopsis anacardioides*, *Diplospora australis*, **Briedelia tomentosa*, *Ehretia membranifolia*.

Lianes and Epiphytes

Stephania japonica var. *tomentosa*, *Caesalpinia scortechinii*, *Gouania hillii*, *Cyanchum leptolepis*, *Carissa laxiflora*, *Secamone elliptica*.

Groundcover

Anisometes inodora, *Proiphys amboinensis*, *Oplismenus* sp., *Rhynchosia minima*.

Description

This type is confined to broad, seasonally inundated drainage lines on cracking clay plains. It occurs mostly within the catchment of the Archer River with some marginal extension into the Wenlock River catchment. The uneven and broken nature of the canopy provides large gaps where thickets of *Ziziphus* dominate with patches of *Dodonaea* and clumps of *Aristida*. The vegetation sampled at Site 134 was surrounded by dense grassland and grassy woodlands with very high fuel loads. A lack of strategic burning would leave these vine thicket communities highly susceptible to damage from wildfire events.

Type 15 Deciduous notophyll/microphyll vine thicket with sclerophylls and dominant *Terminalia oblongata* subsp. *volucris* on gilgaied cracking clay soils

Reference Sites

Lakefield. Site 140.

Floristics

(°denotes obligate deciduous species; #denotes listed rare and threatened species; *denotes exotic species)

Canopy (in order of dominance)

**Terminalia oblongata* subsp. *volucris*, **Croton arnhemicus*, *Flindersia collina*, *Melaleuca citrolens*, **Cochlospermum gillivraei*, *Pouteria sericea*, **Ziziphus oenopolia*, **Larsenaikia ochreata*, *Cassine melanocarpa*, **Lagerstroemia archeriana*, **Strychnos lucida*, **Antidesma ghaesembilla*, *Memecylon pauciflorum* var. *pauciflorum*, *Melaleuca stenostachya*, *Acacia aulacocarpa*, *Alphitonia obtusifolia*, *Diospyros humilis*, *Grevillea striata*.

Subcanopy

None recorded.

Understorey

Dendrolobium umbellatum, *Grewia mesomicha*, *Strychnos axillaris*, *Helicteres angustifolia*, *Glycosmis trifoliata*, *Ehretia microphylla*, *Dodonaea platyptera*.

Lianes and Epiphytes

Capparis sepiaria, *Rhyssopteris timorensis*.

Groundcover

Hypoestes floribunda, *Ocimum tenuiflorum*.

Description

This is a unique vegetation type found only near the southern boundary of Lakefield National Park. It is very low in stature with a very broken canopy. In places *Ziziphus oenopolia* forms impenetrable thickets. The vegetation type appears to be equivalent to some of the Brigalow (*Acacia harpophylla*) and Yellowwood (*Terminalia oblongata* subsp. *oblongata*) communities developed on similar soils in the Dawson-Fitzroy catchment. Aerial photographic evidence shows that it has undergone dramatic expansion in the last twenty years at the expense of grassland. Where it has recently invaded it is characteristically a shrubby woodland dominated by *Terminalia oblongata* subsp. *volucris*.