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VINE FORESTS AND THICKETS OF  
WELL DRAINED SOILS

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OF SOILS DEVELOPED FROM DETRITAL MATERIAL

(b) alluvial fans and plains (other than sand plains), colluvial footslopes  
and deposits of mixed colluvial/alluvial origin

Types 25 to 33

**Type 25      Semi-deciduous notophyll vine forest on small sandy alluvial fans  
at the foot of sandstone and granite hills**

**Reference Sites**

Laura Basin. Site 14, Site 15, Site 17, Site 39.

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**Floristics**

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

**Canopy**

*Buchanania arborescens*, °*Canarium australianum*, °*Millettia pinnata*, °*Terminalia sericocarpa*, °*Gyrocarpus americanus*, °*Barringtonia calyptrata*, *Mallotus philippensis*, *Aidia racemosa*, °*Bombax ceiba* var. *leiocarpum*, *Elaeocarpus arnhemicus*, *Pleiogynium timorense*.

**Subcanopy**

°*Vitex helogiton*.

**Understorey**

*Ixora klanderiana*, *Miliusa traceyi*, *Arytera bifoliolata*, *Dimorphocalyx australiensis*, *Drypetes deplanchei*.

**Lianes and Epiphytes**

*Entada phaseoloides*, *Cayratia maritima*, #*Muelleragia timorensis*, *Passiflora aurantia* var. *aurantia*.

**Groundcover**

*Cyathula prostrata*, *Cyperus zollingeri*, *Panicum trichoides*, \**Hyptis suaveolens*, \**Urena lobata*, \**Bidens bipinnata*.

**Description**

This type is confined to relatively low rainfall areas in and adjacent to the Laura Basin. It has uneven canopy development with tree heights up to thirty metres. This development is achieved through the site ameliorating effects of increased water availability and deeper soils, a consequence of the action of run-off from adjacent hills. Because this type provides shelter for cattle utilising adjacent open areas the groundcover can be dominated in places by exotic weeds that favour disturbed areas.

Right:  
(Site 39) Semi-deciduous notophyll vine forest on gently sloping plain derived from a mixture of marine sands and colluvial products of weathered granite with *Elaeocarpus arnhemicus*, *Millettia pinnata* and *Pleiogynium timorense* dominating the canopy (Photo: Peter Stanton).



**Type 26      Semi-deciduous notophyll/microphyll vine forest on red brown sandy loam developed on mixed alluvium/colluvium from sandstone hills**

**Reference Sites**

Head of the Howick River. Site 50.

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**Floristics**

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

**Emergents**

#*Syzygium argyropedicum*.

**Canopy (in order of cover)**

#*Syzygium argyropedicum*, *Arytera bifoliolata*, °*Vitex acuminata*, °*Croton arnhemicus*, °*Bombax ceiba* var. *leiocarpum*, °*Gyrocarpus americanus*, *Celtis philippinensis*, *Drypetes deplanchei*, °*Premna dallachiana*, °*Millettia pinnata*, °*Wrightia pubescens* var. *penicillata*, °*Canarium australianum*, *Mimusops elengi*, °#*Briedelia* sp. (Stone Crossing, J.R. Clarkson 9032), °*Terminalia* sp. aff. *T. muelleri*, *Celtis* sp. (Cape Melville, D. G. Fell + DGF 3025).

**Subcanopy**

*Cryptocarya exfoliata*, *Tabernaemontana orientalis*, #*Microcitrus garrawayae*, *Pouteria sericea*.

**Understorey**

*Ziziphus oenopolia*, *Phyllanthus novae-hollandiae*, *Premna dallachiana*, *Diospyros reticulata*, *Memecylon pauciflorum* var. *pauciflorum*, *Dinosperma erythrocoeca*, *Uvaria membranaceum*, *Austromyrtus* sp. (Byerstown Range, G. P. Guymmer 2037), *Ficus virens* var. *petiolaris*, *Breynia cernua*, *Drypetes deplanchei*, *Niemeyera antilogum*, *Cassine melanocarpum*, *Harrisonia brownii*, *Euphorbia plumerioides* var. *plumerioides*, *Abutilon micropetalum*, *Litsea glutinosa*.

**Lianes and Epiphytes**

*Ventilago ecorollata*, *Uvaria membranaceum*, *Dendrobium bigibbum*.

**Groundcover**

*Asystasia australasica*, *Panicum trichoides*.

**Description**

The site examined in a remote part of the Laura Basin at the head of the Howick River appears to be, as far as can be determined, the only occurrence of this type. Although only a few hectares in area, it is such a unique floristic assemblage that it cannot be included with any other type. Its floristic interest is heightened by the dominance of the canopy by the Rare and Threatened species *Syzygium argyropedicum*, and the presence of another Rare and Threatened species, *Microcitrus garrawayae*. Both species are separated from their nearest previously recorded location in a much higher rainfall environment by 160 kilometres of largely dry sclerophyll forest.

**Type 27      Deciduous notophyll vine thicket on loam soil derived from mixed marine and terrestrial alluvium**

**Reference Sites**

Melville Range. Site 30.

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**Floristics**

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

**Canopy (in order of cover)**

°*Canarium australianum*, °*Cochlospermum gillivraei*, *Cleistanthus hylandii*, °*Millettia pinnata*, °*Terminalia muelleri*, Sapindaceae (DGF 3018), *Ganophyllum falcatum*, *Cryptocarya exfoliata*, °*Premna dallachiana*, *Memecylon pauciflorum* var. *pauciflorum*, *Euphorbia plumerioides* var. *plumerioides*.

**Subcanopy**

°*Trema tomentosa* var. *viridis*, *Mallotus nesophilus*, *Drypetes deplanchei*.

**Understorey**

*Eugenia reinwardtiana*, *Tabernaemontana orientalis*, *Ziziphus oenopolia*, *Glycosmis trifoliata*, *Harrisonia brownii*, *Meiogyne* sp. (Tingle Scrub, D. G. Fell + DGF 2676), *Diospyros compacta*, *Miliusa traceyi*, *Polyalthia nitidissima*, *Litsea glutinosa*, *Croton arnhemicus*, *Alphitonia excelsa*, *Breynia oblongifolia*, *Austromyrtus* sp. (Byerstown Range, G. P. Guymer 2037).

**Lianes and Epiphytes**

*Gunnessia pepo*, #*Muelleragia timorensis*, *Pachygone ovata*, *Cansjera leptostachya*, *Cayratia maritima*, *Capparis sarmentosa*, *Jasminum didymum* subsp. *didymum*, *Cissus adnata*, *Ichnocarpus frutescens*, *Ampelocissus acetosa*, *Rhamnella vitiensis*.

**Groundcover**

*Scleria mackaviensis*, *Panicum trichoides*, *Tacca leontopetaloides*.

**Description**

Confined to the lower end of a valley on the eastern side of the Melville Range, where coarse siliceous material weathered from granite ranges has mixed with marine alluvium, to produce a relatively shallow mantle of loam soil.

**Type 28 Mesophyll/notophyll vine forest on colluvial footslopes of granite hills – Melville Range area**

**Reference Sites**

Melville Range. Site 47.

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**Floristics**

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

**Canopy (in order of cover)**

*Aleurites moluccana* var. *moluccana*, *Syzygium bamagense*, *Celtis philippinensis*, *Pleiogynium timorense*, *Myristica insipida*, °*Ficus opposita* var. *opposita*, *Atalaya sericopetala*, °*Ficus racemosa* var. *racemosa*, °*Garuga floribunda* var. *floribunda*, °*Premna dallachiana*, *Buchanania arborescens*, *Mimusops elengi*, *Mallotus philippensis*, *Elattostachys megalantha*, *Alstonia scholaris*.

**Understorey**

*Vavaea amicorum*, *Diospyros compacta*, *Salacia chinensis*, *Glycosmis trifoliata*, *Ixora klanderiana*, *Pleomele angustifolia*, *Eugenia reinwardtiana*, *Arytera bifoliolata*, *Cryptocarya exfoliata*, *Phyllanthus novae-hollandiae*, *Strychnos axillaris*, *Tabernaemontana orientalis*, *Dendrocnide cordata*, *Ziziphus oenopolia*, *Leea indica*, *Callicarpa candicans*, *Wrightia versicolor*, *Alstonia scholaris*, *Barringtonia calypttrata*, *Celtis philippinensis*, *Atalaya sericopetala*, *Pisonia aculeata*, *Croton arnhemicus*.

**Lianes and Epiphytes**

*Malaisia scandens*, *Entada phaseoloides*, *Parsonsia velutina*, *Stephania japonica* var. *timorensis*, *Cayratia acris*, *Tetrastigma thorsborneorum*, *Uvaria concava*, *Diplocyclos palmatus* var. *affinis*, *Hippocratea barbata*, *Mucuna gigantea*, *Jasminum didymum* subsp. *didymum*, *Flagellaria indica*, *Pachygone ovata*, *Cayratia trifolia*.

**Groundcover**

*Panicum trichoides*, *Oplismenus burmannii*, *Laportea interrupta*, \**Triumfetta rhomboidea*, *Solanum torvum*, *Wedelia cunninghamii*, *Pseuderanthemum variable*.

**Description**

Confined to the Melville Range area on loam soils. The presence of *Syzygium bamagense* in this type, where it is a dominant canopy species, confirms a major extension of range. The species is otherwise a common feature of the canopy in riverine forests northwards from the McIlwraith Range.

**Type 29      Semi-deciduous mesophyll/notophyll vine forest near the base of granite hills on material derived from mixed colluvial/alluvial processes – Melville Range area**

**Reference Sites**

Melville Range. Site 55.

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**Floristics**

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

**Canopy (in order of cover - other strata not recorded)**

*Aleurites moluccana*, °*Canarium australianum*, °*Bombax ceiba* var. *leiocarpum*, *Ganophyllum falcatum*, *Alstonia scholaris*, *Dimocarpus australianus*, °*Terminalia sericocarpa*, *Litsea glutinosa*, *Buchanania arborescens*, #*Harpullia arborea*, *Polyalthia nitidissima*, °*Garuga floribunda* var. *floribunda*, *Cryptocarya triplinervis* var. *riparia*, *Argyrodendron polyandrum*, *Argophyllum* sp. (DGF 3340), #*Wodyetia bifurcata*, *Melicope melanophloia*, *Bosistoa medicinalis*, *Alectryon reticulatus*.

**Description**

This type is restricted to the eastern base of the Melville Range, on deep sandy soils and gently sloping topography. It is relatively low in stature with an uneven canopy of ten to twenty metres that is predominantly mesophyll. It has a unique floristic assemblage with the endemic palm (*Wodyetia bifurcata*), major extensions of range of other species such as *Dimocarpus australianus* and *Melicope melanophloia*, previously known from Cape York by one specimen from the Rocky River.

**Type 30      Semi-deciduous notophyll vine forest with Acacias on granitic colluvium**

**Reference Sites**

Macrossan Range. Site 58.

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**Floristics**

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

**Emergents**

*Ficus racemosa*.

**Canopy (in order of cover)**

*Mallotus philippensis*, °*Cordia dichotoma*, *Buchanania arborescens*, *Acacia polystachya*, °*Canarium australianum*, *Alstonia scholaris*, *Ficus hispida*, *Phyllanthus praelongipes*, *Litsea glutinosa*, °*Semecarpus australiensis*, *Cleistanthus peninsularis*, °*Lagerstroemia archeriana*, *Arytera divaricata*, *Mallotus polyadenos*, °*Barringtonia calyptata*, *Maranthes corymbosa*, *Erythrophloeum chlorostachys*.

**Understorey**

*Macaranga involucrata* var. *mallotoides*, #*Dendrocnide corollodesme*, *Dimorphocalyx australiensis*, *Ixora klanderiana*, *Cupaniopsis flagelliformis* var. *flagelliformis*, *Ficus opposita*, *Atractocarpus sessilis*, *Toechima daemelianum*, *Rhodomyrtus macrocarpa*, *Celtis philippensis*, *Cryptocarya exfoliata*, *Euonymus australiana*, *Strychnos axillaris*, #*Polyscias macgillivrayi*, *Leea indica*, *Psychotria loniceroides*, *Rhodamnia spongiosa*, *Mallotus polyadenos*, *Flacourtia* sp. (Shipton's Flat, L.W. Jessup + GJD 3200), *Diospyros hebecarpa*, *Streblus pendulinus*, *Sterculia quadrifida*, *Chionanthus axillaris*.

**Lianes and Epiphytes**

*Parsonia velutina*, *Derris* sp. (DGF 3432), *Stephania japonica* var. *timorensis*, *Calamus caryotoides*, *Piper* sp. (DGF 3410), *Flagellaria indica*, *Salacia disepala*.

**Groundcover**

*Oplismenus burmannii*, *Alpinia* sp.

**Description**

This is a transitional type, now towards the end of a recent shift from sclerophyll woodland to closed forest, as evidenced by the frequent *Acacia polystachya* in the canopy, the presence of *Erythrophloeum chlorostachys*, and charred logs on the forest floor. It is found north of the Rocky River on some footslopes of granite hills and ranges. It adjoins tall dense notophyll rainforest upslope.



**Type 31      Semi-deciduous notophyll vine forest on deep podzol soils  
developed from granite colluvium/alluvium**

**Reference Sites**

Site 118.

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**Floristics**

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

**Emergents**

*Flindersia schottiana*

**Canopy (in order of cover)**

°*Terminalia muelleri*, *Mimusops elengi*, *Cleistanthus hylandii*, *Halfordia kendack*, *Pouteria sericea*, *Pleurostylie opposita*, *Syzygium forte* subsp. *forte*, *Argyrodendron polyandrum*, °*Canarium australianum*, *Grevillea baileyana*, °#*Brachychiton velutinosus*, *Arytera bifoliolata*, °*Vitex acuminata*, *Diospyros calycantha*, *Vavaea amicorum*, *Mallotus polyadenos*, *Euonymus australiana*.

**Subcanopy**

*Meiogyne* sp. (Tingle Scrub, D.G. Fell + DGF 2676), *Toechima daemelianum*, *Austromyrtus* sp. (Claudie River, G.P. Guymmer 2052), *Corynocarpus cribbianus*, °*Cordia dichotoma*, *Chionanthus ramiflora*, *Pandanus conicus*.

**Understorey**

*Ochrosia minima*, *Aidia racemosa*, *Tabernaemontana orientalis*, *Gardenia scabrella*, *Cleistanthus hylandii*, *Haplosticanthus* sp. (Rocky River Scrub, P.I. Forster, P.I.F. 10617), *Pouteria chartacea*, *Croton capitis-york*, *Sterculia quadrifida*, *Rapanea urceolata*, *Phaleria octandra*, #*Hodgkinsonia frutescens*, *Drypetes deplanchei*, *Diospyros* sp. (Bamaga, B.P. Hyland 2517), *Cryptocarya exfoliata*, *Diploglottis macrantha*, *Cleistanthus apodus*, *Endiandra glauca*, *Ixora klanderiana*, *Chionanthus ramiflora*, *Kibara rigidifolia*, *Suregada glomerulata*.

**Lianes and Epiphytes**

*Calamus caryotoides*, *Flagellaria indica*, *Rhamnella vitiensis*, *Tetracera daemeliana*, *Caesalpinia scortechinii*, *Cyathostemma micranthum*, *Dischidia ovata*, *Smilax australis*, *Scindapsus altissimus*, *Epipremnum pinnatum*, *Bulbophyllum baileyi*, *Drynaria rigidula*.

**Groundcover**

*Eurycycles amboinensis*.

**Description**

Appearing unique to the Claudie River catchment this type is found on gently undulating topography and soil derived from granites, which has a deep grey to white sand surface profile, and mottled light sandy clay at two hundred centimetres depth or below. The nature of the soil is reflected in the forest structure and floristic composition which bears a strong resemblance to that of forests developed on coastal sand dunes particularly the dominant canopy species. The geological history of the area is obscure and it is wrongly mapped on the 1:250,000 sheet as metamorphic. The soil nature suggests it is developed from transported material (alluvium, colluvium) however it could, in view of the undulating topography and the mature soil profile, have developed *in situ*.

**Type 32 Tall semi-deciduous notophyll vine forest of red structured earth soils developed on colluvium from metamorphics**

**Reference Sites**

Claudie River. Site 40.

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**Floristics**

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

**Emergents**

*Aleurites moluccana*, °*Canarium australianum*, °#*Brachychiton velutinosus*, *Alstonia scholaris*.

**Canopy (in order of cover)**

*Dissiliaria laxinervis*, *Aleurites moluccana*, °#*Brachychiton velutinosus*, #*Syzygium pseudofastigiatum*, °*Millettia pinnata*, *Mimusops elengi*, *Chrysophyllum lanceolatum*, *Austromyrtus* sp. (Claudie River, B. P. Hyland), #*Archidendron hirsutum*, *Diospyros hebecarpa*, *Dysoxylum oppositifolium*, °*Canarium australianum*, *Grevillea baileyana*, *Elaeocarpus arnhemicus*, *Dysoxylum latifolium*, #*Microcitrus garrawayae*, #*Rinorea bengalensis*, °*Wrightia laevis* subsp. *millgar*.

**Subcanopy**

*Atractocarpus sessilis*, *Pleomele angustifolia*, *Strychnos axillaris*, *Ixora klanderiana*, *Cryptocarya cunninghamii*.

**Understorey**

*Glycosmis trifoliata*, *Mallotus resinus*, *Rapanea urceolata*, *Croton dockrillii*, *Gardenia scabrella*, *Haplostichanthus* sp. (Rocky River Scrub, P. I. Forster PIF 10167), *Euonymus australiana*, *Randia tuberculosa*, *Aglaia euryanthera*, *Cleistanthus hylandii*, *Arytera bifoliolata*, *Salacia chinensis*, *Cupaniopsis flagelliformis*, *Scolopia braunii*, *Ganophyllum falcatum*, *Kibara rigidifolia*, *Diospyros maritima*, #*Cryptocarya claudiana*, *Ptychosperma elegans*, *Streblus brunonianus*.

**Lianes and Epiphytes**

*Strychnos colubrina*, *Calamus caryotoides*, *Ventilago ecorollata*, *Tiliacora australiana*, *Cissus opaca*, *Flagellaria indica*, *Pisonia aculeata*, *Rhaphidophora australasica*, *Ampelocissus moorei*.

**Groundcover**

*Scleria lithosperma* var. *linearis*, *Drynaria rigidula*, *Tacca leontopetaloides*, *Pseuderanthemum variabile*, *Corymborkis veratrifolia*, *Dianella atraxis*.

**Description**

One of the best-developed rainforest types on Cape York Peninsula with canopy heights to forty metres and emergents to fifty metres. It appears to be confined to the Claudie River catchment where it occupies the lowest slope positions on broad metamorphic ridges, sometimes descending below maximum flood level. Soil is a red structured earth with some mottling at depth, showing the obvious influence of nearby greenstones, (altered basalts), although the abundant large quartz particles below a metre depth are evidence of the contribution of other metamorphic facies to the colluvium on which it is formed. Supports many rare and threatened species.

**Type 33      Semi deciduous microphyll/notophyll vine forest on colluvial  
footslopes derived from granite Inland (western) slopes**

**Reference Sites**

Coen to Wenlock River headwaters. Site 66.

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**Floristics**

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

**Canopy (in order of cover)**

*Dinosperma erythrocoeca*, °*Croton arnhemicus*, *Stenocarpus salignus*, *Acacia polystachya*, *Pleiogynium timorense*, *Cyclophyllum coprosmoides*, *Mimusops elengi*, *Aleurites moluccana*, *Argyrodendron polyandrum*, *Siphonodon australis*.

**Subcanopy**

#*Microcitrus garrawayae*, *Aidia racemosa*, °*Larsenaikia ochreatea*, *Rhodamnia australis*, °*Strychnos lucida*, °*Canarium australianum*.

**Understorey**

*Cleistanthus xerophilus*, *Cassine australis*, *Meiogyne* sp. (Tingle Scrub, D. G. Fell + DGF 2676), *Canthium odoratum*, *Diospyros compacta*, *Ziziphus oenopolia*, *Eugenia reinwardtiana*, *Croton insularis*, *Austromyrtus* sp., *Dimorphocalyx australiensis*, *Guettardella ovatifolia*, *Rhodamnia australis*, *Drypetes deplanchei*, *Callicarpa candicans*, *Bursaria spinosa*, *Memecylon pauciflorum* var. *pauciflorum*, *Cassine melanocarpum*, *Ehretia microphylla*, *Harrisonia brownii*, *Wrightia pubescens* subsp. *penicillata*, *Celtis* sp. (Cape Melville, D. G. Fell + DGF 3025), *Macaranga involucrata* var. *mallotoides*, *Croton* sp. (Myall Creek, P. I. Forster, PIF 14368).

**Lianes and Epiphytes**

*Tinospora smilacina*, *Caesalpinea scortechinii*, *Pisonia aculeata*, *Uvaria concavum*, *Uvaria* sp. (DGF 3514), *Malasia scandens*, *Parsonsia* sp. aff. *P. densivestitus* (DGF 3515), *Jasminum didymum* subsp. *didymum*.

**Groundcover**

*Spartothamnella juncea*, *Ancistrachne uncinulata*, *Oplismenus burmannii*, *Lindsaea media*.

**Description**

Confined to the inland side of hills and ranges north from the latitude of Coen to the headwaters of the Wenlock River. Restricted in occurrence and confined to small patches on the driest margins of the main distribution of rainforest. Soils are deep sandy loams and generally rock-free. This type is usually heavily impacted by feral pigs and cattle.