

Mount Lewis Botanical Significance

(Notes adapted by R. Jago from SGAP publication 'Cairns Conference' 1986)

Mount Lewis is one of many outstanding plant areas of North Queensland. It is a rainforest peak near Julatten (north of Mareeba). Mt. Lewis Road branches off the Rex Range Highway between Julatten and Mossman and the visitor should follow this road for 29km to the end.

Mt. Lewis is outstanding amongst the other rainforest areas in North Queensland because not only does it contain many of the more common rainforest plants of the north, but a large number of very rare ones too. One of the features of the plants on Mt. Lewis is their exceptional beauty, over and above the widely acknowledged beauty of our rainforest plants in general.

The reasons for this can be found in the geology and climatic history of the area. The volcanic activity resulting in the large areas of basalt rock in North Queensland is relatively recent, geologically speaking; granite, on the other hand, is much older. Mt. Lewis is granite. Rainforest is older (in geological time) on granite than on basalt; therefore it contains a greater variety of species (many of which are ancient from an evolutionary point of view) than can be found in rainforest on basalt.

In addition, Mt. Lewis is a high peak, and rainforests on high peaks are of particular interest for two reasons. Firstly, they contain different plants simply because of their altitude, and secondly they are relict areas of evolutionary significance since the rainforest retreated to these high peaks during dry periods in Australia's climatic history and these refuges were isolated from each other for long periods. Therefore the high peaks are likely to contain different, and very rare plants.

Mt. Lewis is the most accessible of these granite high peak refuges. Provided there has not been too much rain a 4WD vehicle can drive to the end of the road with care. Other high peaks of equal interest include Mt. Bartle Frere, Mt. Spurgeon, Mr. Peiter Botte and Thornton Peak (these require a long walk) and the McDowall Range on the CREB track (this requires a 4WD).

One of the striking features of many of the plants on Mt. Lewis is their spectacular red / bronze new growth - in particular *Elaeocarpus ferruginea*; *Aceratium ferrugineum*, and *Carnarvonia araliifolia* var *montana*.

The palms on Mt. Lewis are of particular interest. The Alexandra Palm (*Archontophoenix purpurea*) here is similar to the common *Archontophoenix alexandrae* of the North Queensland rainforests, but with a much larger fruit and a distinct purple colouring to the crownshaft and underside of the fronds.

Oraniopsis appendiculata is common, as is *Laccospadix australasica*, but the *Laccospadix* is unusual in that it grows very tall and spindly with a single trunk and does not sucker. A very unusual walking stick palm (*Linospadix apetiolata*) is found in the higher altitudes. It is often referred to as the 'cabbage palm' because it suckers from the base forming a clump like a cabbage and sending up usually only one walking stick per clump.

Tree ferns abound. *Cyathea rebecca*, *C. robertsiana* and *C. cooperi* are common. The unusual 'Wig Tree Fern' *Cyathea baileyana* can be found on Mt. Lewis, but only in very moist shady areas in the higher altitudes. *C. baileyana* has a slender trunk with a curious wig-like clump at the top, at the base of the fronds. The 'wig' is bright green when young, ageing to a reddish brown.

The family Proteaceae is very well represented on the mountain with about two dozen species to be found. *Grevillea baileyana* is particularly prominent in the lower altitudes: *Placospermum coriaceum* is common. *Athertonia diversifolia* and *Catalepidia heyana* occur on the mountain. *Carnarvonia araliifolia* can be found, but *Carnarvonia araliifolia* var *montana* with brilliant red / bronze new growth is far more common (or at least more prominent). *Sphalmium racemosum*, a rare plant restricted to the high peaks, is present. Another member of the Proteaceae family is a pink flowered shrub, *Triunia montana*, which is found in the higher altitudes on Mt. Lewis. An unnamed *Austromuellera* sp is found near the top. However, the real 'gem' of the mountain is the rare 'fern-leafed' *Stenocarpus davallioides*, also found only in the higher altitudes, a tree with the most beautiful ferny foliage you could ever imagine.

Bunya Pines (*Araucaria bidwillii*) also occur naturally on the western slopes, making a fascinating study in plant distribution since the only other natural occurrences are in the Bunya Mountains (near Kingaroy) and on Fraser Island, Tully Gorge and Cannabullen Falls. The northeast Queensland form has a much softer foliage. *Acmena resa* (bark has an oak-like red blaze) grows higher up on the slopes. .

On rocky outcrops, the vine *Quintinia fawknerii* grows with the King Orchid *Dendrobium speciosum*. *Alyxia oreophila*, similar to *Alyxia ruscifolia*, grows as an understorey plant, the scent from it's fragrant white flowers can fill the air. An interesting plant *Polyscias wilmottii* emits a mango-like scent from it's freshly picked leaves.

Agapetes meiniana is another high altitude vine with vivid pink, tubular bell- shaped flowers conspicuous often on the forest floor. Another scrambler, *Rhododendron lochae* also grows on the rocky outcrops. The pale mauve flowers of the Sun Orchid, *Thelymitra*, can add a touch of colour amongst the scrambler *Agapetes*. A species of *Zieria* will also occur with these generally also in flower. It is a small shrub with very aromatic foliage and small pinkish white flowers.

Syzygium erythrodoxa and *Uromyrtus metrosideros* can display a colourful red / pink new leaf.

In the moss covered creeks the rocks are 'decorated' with a beautiful delicate lace-like frond fern, *Oenotrichia tripinnata*, *Blechnum articulatum* and *Pteridoblechnum* are also plentiful, the bright pink / purple fronds commanding attention. Many other ferns of great beauty are also evident. *Prumnopitys ladei* (formerly known as *Podocarpus ladei*) has an unusual foliage somewhat fern-like in appearance.

Ostrearia australiana belongs to the Hamamelidaceae family which has a worldwide distribution, there being some 100 species in 25 genera. In Australia, we have three species in three genera. Both are endemic to local rainforest. This is a small to medium sized tree that is more interesting than attractive. The capsules are retained on the tree for some period after the seeds are shed and the presence of these capsules on the ground is usually the first indication that this species is present. This species is common along the Mt. Lewis Road as well as in many other areas. It is illustrated in 'Flowering Plants in Australia'.

Many of the exotic species are cultivated in Australian gardens, mainly *Hamamelis virginiana* which is the source of 'Witch's Hazel' a solution used on cuts and bruises etc. *Hamamelis mollis* is also cultivated, as is *H. japonica*, *Corylopsis spicata*, *C. sinensis*, *Disanthus cercidifolius*, *Fothergilla monitcolor*, *F. parvifolia*, *Liquidambar styraciflua*, *L. formosana*, *L. orientalis* and *Parrotis persica*.

GESNERIACEAE

Lenbrassia australiana var *australiana* A small shrub growing along the Mt. Lewis Road that attracted some attention was the above species which was in flower. This interesting species belongs to the family Gesneriaceae. The family is mainly tropical with some 2000 species in 120

genera. Many species of the family are commonly cultivated throughout the world, the main ones being: *Achimenes longiflora*, *Columnea gloriosa*, *C. schiedeana*, *Episcia cupreata*, *Kohleria bogotensis*, *Saintpaula ionantha* 'African Violet', *Sinningia speciosa* 'Gloxinia' all of which are exotic. The Australian species number six or seven and belong to six genera and occur from somewhere around Iron Range down the East Coast to Southern Victoria and also Lord Howe Island.

Boea hygroskopica 'Rock Violet'

This species is well known to native plant enthusiasts and is featured in the Horticultural Guide. It is a variable species and up to three species may be involved. The flowers of some are pink while others are violet as well as different leaf shapes and texture. This species is remarkably similar to *B. hygrometrica* of China.

Cyrtandra baileyi

This is very common shrub on the Bellenden Ker Range occurring from the- foothills to around 1200mm in altitude. It is an interesting little plant that is very easily grown. I have one that has come up by itself after discarding some fruit in the garden. It flowers from time to time. There are about 350 species of *Cyrtandra* worldwide. The Australian species is endemic. It occurs on Mt. Lewis usually in small, dark gullies etc.

There are many other rare and/ or interesting plants to be found, but it is hoped that the examples mentioned above are sufficient to convince you that Mt. Lewis is a truly precious and exciting piece of rainforest. It is State Forest, and visitors require a permit to traverse, which may be obtained from the Forestry Department in Atherton.

The visitor will find two CSIRO publications useful- "The Vegetation of the Humid Subtropical Region of North Queensland" by J.G. Tracey, and "A Revised Card Key to Rainforest Trees of North Queensland" by B.P.M. Hyland - as well as "Rainforest Proteaceae of North Queensland" to be published soon by the Tablelands Branch of SGAP .

Amyema whitei
Abrophyllum ornans
Acacia celsa
Acacia melanoxydon
Acmena divaricata
Acmena resa
Acronychia chooreechillum
Adiantum cunninghamii
Agapetes meiniana
Aglaia meridionalis
Aglaia. tomentosa
Alocasia brisbanensis
Alphitonia whitei
Alstonia muelleriana
Alyxia grandis
Alyxia orophila
Angiopteris evecta
Antirhea sp. (Mt Lewis)
Apodytes brachystylis
Arbryodendron sp (RFK575)
Archidendron ramiflorum
Archontophoenix purpurea
Ardisia pachyrrhachis
Argyrodendron sp. (Mt Haig)
Arthropteris submarginalis

Callerya philipes
Acacia aulacocarpa
Acacia crassicaarpa
Aceratium ferrugineum
Acmena hemilampra ssp orphila
Acronychia acidula
Acronychia parviflora
Adiantum silvaticum
Aglaia brassi
Aglaia sapindina
Aleurites rockinghamensis
Alphitonia petriei
Alpinea arctiflora
Alstonia scholaris
Alyxia ilicifolia
Amyema whitei
Antidesma erostre
Antirhea tenuiflora
Araucaria bidwillii
Archidendron grandiflorum
Archidendron vaillantii
Ardisia brevipedata
Ardisia sp. (Mountain Ardisia)
Aristolochia sp. (Mt. lewis)
Arytera divaricata

Arytera pauciflora
Asplenium australasicum
Asplenium polyodon
Athertonia diversifolia
Atractocarpus merikin
Austrobaileya scandens
Austromatthaea elegans
Austromuellera trinervia
Austromyrtus dallachiana
Austromyrtus shepherdii
Austromyrtus sp. (Gillies)
Austrosteenisia blackii
Balanops australiana
Baloghia parviflora
Beilschmiedia brunnea
Beilschmiedia recurva
Blechnum cartilagineum
Blechnum patersonii subsp. queenslandicum
Bolbitis taylorii
Brombya platynema
Buckinghamia celsissima
Bulbophyllum lageniforme
Caesalpinia major
Calamus moti
Callerya pilipes
Canthium coprosmoides
Cardwellia sublimis
Casearia costulata
Castanospora alphanthii
Cephalalaria cephalobotrys
Cephalomanes obscurum
Ceratopetalum virchowii
Chionanthus ramiflorus
Cinnamomum laubatii
Cissus penninervis
Clerodendrum grayi
Cordyline cannifolia
Crepidomanes barnardianum
Crepidomanes johnstonense
Crepidomanes walleri
Cryptocarya acuminata
Cryptocarya cocosoides
Cryptocarya densiflora
Cryptocarya leucophylla
Cryptocarya mackinnoniana
Cryptocarya oblata
Cryptocarya saccharata
Cryptocarya vulgaris
Cyathea baileyana
Cyathea rebecca
Cyathea woollsiana
Cyclophyllum lamprophyllum
Cymbidium suave
Daphnandra repandula
Davallia solida var. pyxidata
Davillia denticulata
Asplenium athertonense x? (Mt. Lewis)
Asplenium laserpitiifolium
Asplenium simplicifrons
Atractocarpus fitzalanii subsp. tenuipes
Atractocarpus ovularis
Austrobuxus megacarpus
Austromuellera sp. (Mt Lewis)
Austromullera sp
Austromyrtus minutiflora
Austromyrtus sp. (Danbulla)
Austromyrtus sp. (Mt Lewis)
Austrosteenisia stipularis
Baloghia inophylla
Beilschmiedia bancroftii
Beilschmiedia collina
Blechnum articulatum
Blechnum orientale
Bobea myrtoides
Brackenridgea nitida ssp australiana
Bubbia queenslandiana subsp. queenslandiana
Bulbophyllum johnsonii
Bulbophyllum sp.
Calamus australis
Caldcluvia australiensis
Calymmodon luerksenianus
Canthium sp. (Kuranda)
Carnarvonia araliifolia var. montana
Casearia dallachii
Catalepidia heyana
Cephalomanes brassii
Ceratopetalum succirubrum
Chionanthus axillaris
Chrysophyllum sp.
Cissus hypoglauc
Citronella smythii
Cnesmocarpon dasyantha
Corynocarpus cribbianus
Crepidomanes bipunctatum
Crepidomanes vitiense
Crypsinus simplicissimus
Cryptocarya angulata
Cryptocarya corrugata
Cryptocarya grandis
Cryptocarya lividula
Cryptocarya murrayi
Cryptocarya putida
Cryptocarya smaragdina
Cupaniopsis flagelliformis subsp. flagelliformis
Cyathea cooperi
Cyathea robertsiaria
Cyclophyllum coprosmoides
Cymbidium madidum
Cyrtandra baileyi
Darlingia darlingiana
Davidsonia pruriens
Delarbrea michieana

Dendrobium adae
Dendrobium carrii
Dendrobium gracilicaule
Dendrocnide moroides
Denhamia viridissima
Dianella atraxis
Dictymia brownii
Diospyros sp. (Millaa Millaa)
Diplazium dilatatum
Doryphora aromatica
Drynaria rigidula
Drypetes acuminata
Dysoxylum papuanum
Elaeocarpus bancroftii
Elaeocarpus elliffii
Elaeocarpus grandis
Elaeocarpus largiflorens var. retinervis
Elaeocarpus sp. (Mt Bellenden Ker)
Elaphoglossum queenslandicum
Elattostachys microcarpa
Endiandra bessaphila
Endiandra dielsiana
Endiandra hypotephra
Endiandra jonesii
Endiandra monothyra subsp. monothyra
Endiandra phaeocarpa
Endiandra wolfei
Eupomatia laurina
Fagraea fagraeacea
Ficus fraseri
Flindersia acuminata
Flindersia brayleyana
Franciscodendron laurifolium
Gahnia sieberiana
Galbulimima belgraveana
Garcinia warrenii
Gardenia ovularis
Gillbeea adenopetala
Gleichenia dicarpa
Glochidion hylandii
Glochidion sessilinum var. pedicellatum
Gracina sp
Guioa acutifolia
Gymnostachys anceps
Harpullia frutescens
Hedraianthera porphyropetala
Helicia grayi
Helicia lewisensis
Helicia recurva
Histopteris incisa
Homalium sp. aff. circumpinnatum = Drypetes iodoformis
Humata repens
Huperzia marsupiiformis
Hymenophyllum javanicum
Hymenophyllum subdimidiatum

Dendrobium agrostiphyllum
Dendrobium fleckeri
Dendrobium jonesii var. magnificum
Dendrophthoe ? glabrescens
Desmos goeziana
Dicranopteris linearis var linearis
Dinosperma stipitata
Diospyros sp. (Mt Lewis)
Diplazium queenslandicum
Dryadodaphne sp. (Mt Lewis)
Dryopteris sparsa
Drypetes iodoformis
Elaeocarpus angustifolius
Elaeocarpus carolinae
Elaeocarpus eumundi
Elaeocarpus largiflorens ssp. Larginorens
Elaeocarpus sericoleopsis
Elaeocarpus sp. (Windsor Tableland)
Elatostema reticulatum
Endiandra acuminata
Endiandra cowleyana
Endiandra discolor
Endiandra insignis
Endiandra leptodendron
Endiandra montana
Endiandra sankeyana
Euodia sp (RFK392 1)
Fabraea cambagei
Ficus crassipes
Flagellaria indica
Flindersia bourjotiana
Flindersia pimenteliana
Freycinetia excelsa
Galbulimima baccata
Garcinia sp. (Davies Ck)
Gardenia merkin
Geissois biagiana
Gillbeea whyppallana
Glochidion harveyanum
Glochidion pungens
Goniothalamus australis
Grevillea baileyana
Guioa lasioneura
Halfordia scleroxyla
Harpullia rhyticarpa
Helicia australasica
Helicia lamingtoniana
Helicia nortoniana
Helmholtzia acorifolia
Homalanthus novoguineensis
Hoya pottsii

Huperzia lockyeri
Hylandia dockrillii
Hymenophyllum samoense
Hymenophyllum walleri

Hypserpa decumbens
Hypsophila dielsiana
Irvingbaileya australis
Ixora sp. (North Mary)
Jasminum aemulum
Jasminum kajewskii
Laccospadix australasica
Lastreopsis grayi
Lenbrassia australiana var. *australiana*
Lethedon setosa
Lindsaea brachypoda
Linospadix apetiolata
Liparis nugentiae
Litsea connorsii
Lomandra longifolia
Lycopodiella cemua
Macaranga involucrata var. *mallotoides*
Mackinlaya confusa
Malastoma affine
Medicosma fareana
Meiogyne sp. (Mt. Lewis)
Melodinus australis
Melodorum uhrii
Mischocarpus exangulatus
Mischocarpus macrocarpus
Mobilabium hamatum
Morinda sp. (Black leaves)
Motherwellia haplosciadea
Musgravea stenostachya
Neolitsea dealbata
Nephrolepis cordifolia
Oenotrichia tripinnata
Omalanthus nouoguineensis
Oraniopsis apendiculata
Ostrearia australiana
Palmeria scandens
Pararistolochia sparusifolia
Parsonsia straminea
Pellaea nana
Perrottetia arborescens
Pilidiostigma tetramerum
Piper novae-hollandiae var. (Windsor
Tableland)
Pitaviaster haplophyllus
Pittosporum trilobum
Planchonella euphlebia
Platynerium hillii?????
Podocarpus grayae
Polyaulax sp. (Mt Lewis)
Polyosma rigidiuscula
Polyscias australianum
Polyscias mollis
Polyscias purpurea
Pothos longipes
Pouteria chartacea
Pouteria macrocarpa

Hypserpa smilacifolia
Hypsophila halleyana
Ixora orophila
Jagera dasyantha
Jasminum didymum subsp. *didymum*
Korthalsella papuana
Lasianthus strigosus
Lastreopsis wurunuran
Lepiderema ixiocarpa
Leucopodium spathaceus
Lindsaea obtusa
Linospadix microcarya
Litsea bennettii
Litsea leefeana
Lomatia fraxiniifolia
Macaranga inamoena
Macaranga subdentata
Mackinlaya macrosciadea
Marattia oreades
Meficope broadbentiana
Melastoma affine
Melodinus bacellianus
Mischarytera lautereriana
Mischocarpus exangulatus vel aff.
Mischocarpus pyriformis subsp. *pyriformis*
Morinda jasminoides
Morinda umbellata
Musgravea heterophylla
Myristica insipida
Nephrolepis auriculata
Niemeyera sp. (Mt Lewis)
Oleandra neriiformis
Opisthiolepis heterophylla
Oreodendron biflorum
Pachygone longifolia
Pandanus monticola
Parsonsia latifolia
Pavetta australiensis
Peperomia eneruis
Phreatia crassiuscula
Piper caninum
Piper sp (Windsor Tableland)

Pittosporum rubiginosum ssp *wingii*
Placospermum coriaceum
Planchonella macrocarpa
Plectorrhiza tridentata
Podocarpus smithii
Polyosma hirsuta
Polyosma sp. (Mt Lewis)
Polyscias elegans
Polyscias murrayi
Polyscias wilmottii
Pouteria brownlessiana
Pouteria euphlebia
Pouteria papyracea

Pouteria sp. (Mt Lewis)
Prumnopitys ladei
Psychotria sp. (Daintree)
Psychotria sp. (Mt Lewis)
Psychotria submontana
Pullea stutzeri
Randia fitzalanii subsp. *tenuipes*
Rapanea achradifolia
Rapanea subsessilis
Rhaphidophora australasica
Rhodamnia costata
Rhodamnia spongiosa
Rhodomyrtus pervagata
Rhysotoechia florulenta
Ripogonum album
Romnalda grallata
Rubus queenslandicus
Sarcopetalum harveyanum
Sarcotoechia cuneata
Sarcotoechia protracta
Sarcotoechia villosa
Schistocarpha johnsonii
Siphonodon membranaceus
Sloanea langii
Smilax glyciophylla
Smilax sp
Solanum mauritianum.
Sphenostemon lobosporus
Stenocarpus davallioides
Sticherus flabellatus var. *compactus*
Streblus glaber var. *australianus*
Symplocos cochinchinensis var. *gittonsii*
Symplocos cochinchinensis var. *pilosiuscula*
Symplocos cyanocarpa
Symplocos sp. (North Mary LA)
Synima cordierorum
Synoum muelleri
Syzygium apodophyllum
Syzygium cormiflorum
Syzygium cryptophlebium
Syzygium erythroxum
Syzygium johnsonii
Syzygium luehmannii
Syzygium trachyphloium
Tabernaemontana pandacaqui
Tapeinosperma sp. (Cedar Bay)
Tectaria confluens
Tetrasynandra pubescens
Timonium singularis
Toechima monticola
Trichosanthes sp. (Mt Lewis)
Uromyrtus metrosideros
Wilkiea angustifolia
Wilkiea wardellii
Ziera sp

Prosaptia maidenii
Prunus turneriana
Psychotria sp. (Danbulla)
Psychotria sp. (Utchee Creek)
Pteridoblechnum acuminatum
Quintinia fawkneri
Randia sp. (Mt Lewis)
Rapanea porosa
Rapanea subsessilis (Northern ssp.)
Rhodamnia blairiana
Rhodamnia sessiliflora
Rhododendron lochiaie
Rhodomyrtus sericea
Rhysotoechia mortoniana
Rockinghamia angustifolia
Rubus mollucanus
Sarcophilus serrulatus
Sarcopteryx montana
Sarcotoechia lanceolata
Sarcotoechia sp. (Mountain Sarcotoechia)
Schefflera actinophylla
Scleroglossum wooroonooran
Sloanea australis ssp. *parvinora*
Sloanea macbrydei
Smilax hypoglauca
Solanum dimorphispinum
Sphalmium racemosum
Stegathera maccooraia
Stephania japonica
Sticherus flabellatus var. *flabellatus*
Symplocos ampulliformis
Symplocos cochinchinensis var. *glaberrima*
Symplocos crassiramifera
Symplocos paucistaminea
Symplocos stawellii var. *montana*
Synima macrophylla
Syzygium alatoramulum
Syzygium canicortex
Syzygium corynanthum
Syzygium endophloium
Syzygium gustavioides
Syzygium kuranda
Syzygium papyraceum
Syzygium wesa
Tapeinosperma pseudojambosa
Tasmannia membranea
Teratophyllum brightiae
Tetrasynandra sp. (Mt Lewis)
Toechima erythrocarpum
Trichomanes bimarginatum
Triunia montana
Wendlandica inclusa
Wilkiea huegeliana
Xanthophyllum octandrum
Ziera sp. (Thornton Peak)