Plant Formations in the Neocaledonian BioProvince

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Neocaledonian Tropical Rainforest
These can be broadly divided into lowland forests and montane forests. The lowland component has a very mixed composition with many endemic gymnosperms such as Agathis lanceolata, A. ovata, Araucaria bernieri (Araucariaceae), Dacrydium araucarioides, Dacrycarpus vieillardii (Podocarpaceae) and Falcatifolium taxoides (Podocarpaceae). The main angiosperm trees include endemics such as Calophyllum neocaledonia, Montrouziera cauliflora (Clusiaceae), Neoguillauminia cleopatra (Fabaceae) and species of the endemic genus Sleumerodendron (Proteaceae). Smaller understorey trees may include the endemic Alphitonia austrocaledonica (Rhamnaceae), but in other areas there are dominant stands of other endemics such as Nothofagus aequilateralis (Nothofagaceae), while in coastal areas the endemic Araucaria columnaris (Araucariaceae) often forms conspicuous stands, a species which is very close to the Norfolk Island endemic Araucaria heterophyllum. The montane forests typically include species of Acmopyle, Agathis, Araucaria (e.g. A. muelleri), Dacrydium, Libocedrus, Metrosideros, Nothofagus (e.g. N. codonandra), Podocarpus, Quintinia and Weinmannia. On lower slopes this may grade into a Gymnostoma deplancheana association, while on the steeper slopes a more open woodland with maquis undergrowth may be present. The dominant shrubs include endemics such as the bright green Arillastrum gummiferum (Myrtaceae) and grey green rosettes of Cocconerion minor (Euphorbiaceae). Species composition of these rainforest if strongly dependent on the soil types with many species confined to ultrabasic soils. Amongst these are many of the BioProvince’s palaeo-endemics including most of the endemic conifers. There are also a number of species confined to calcareous substrates including endemics such as Tieghemopanax crenatus (Araliaceae), Diospyros inexporata (Ebenaceae), Acalypha pulchrespicata (Euphorbiaceae), Cyrtandra mareensis (Gesneriaceae) and Serianthes lifouensis (Mimosaceae).

Neocaledonian Woodland Savanna
Most of the woodland savanna is dominated by Melaleuca quinquenervia (paperbark tree) known locally as Niaouli Woodland. Other conspicuous species in this habitat include Agathis ovata, Dacrydium araucaroides, Grevillea gillivrayi and Gymnostoma chameocyparis. More typical of the untrabasic soils is the endemic Acacia spirorbis (Fabaceae).

Neocaledonian Sclerophyllous Forest
Mainly in the dryer western side of Grande Terre, this dense, closed canopy forest is mostly confined to sedimentary substrates such as chert, limestone or sandstone. Compared with the rain forest and maquis, there are fewer endemics and species diversity is much lower than elsewhere. Nevertheless there are still some 59 endemic species and one endemic genus - the magnificent Captaincookia (C. margaretae) of the Rubiaceae, which can have pink blossums covering its entire trunk. Other endemic species include Codiaeum peltatum (Euphorbiaceae), Gardenia urvillei (Rubiaceae) and Pittosporum pancheri (Pittosporaceae).

Neocaledonian Maquis
Virtually confined to ultrabasic soils, maquis is often characterized by species of Grevillea and Hibbertia (Dilleniaceae) such as the endemic Hibbertia baudovinii. The species composition of associated taxa varies from place to place, but may include Callistomom
pancheri, the endemic *Soulamea muelleri* (Simaroubaceae) and various species of *Gardenia* and *Myrtopsis*. There is also a distinctive upland maquis with a prostate form of *Baeckia ericoides* often representing the dominant species, and on the southern massif, species such as *Greslania montana* and *Xeronema moorei* and confined to upland maquis. On the Massif de Koniambo a somewhat different type of maquis occurs in which *Tristania guillainii* is the dominant species. Other characteristic species include the endemic *Styphelia balansae* and *S. macrocarpa* (Epacridaceae) and species of *Guioa* (Sapindaceae) such as the endemic *Guioa fusca*.

Further information required.

**References**


