New Zealand’s vascular epiphytes, vines & parasites

Catherine Bryan
Key terms

Vascular:
plant which possesses a well-developed system of conducting tissue to transport water, mineral salts and sugars.

Holo-epiphyte:
plants that spend their entire life cycle in the canopy

Hemi-epiphyte:
plants that spend some stage of their life rooted in terrestrial soil
  primary hemi-epiphyte – canopy germination
  secondary hemi-epiphyte – forest floor germination

Parasite:
plants that obtain nourishment from another organism
Key terms

Hemi-parasite:
plants that obtain some of their nourishment from another organism but also produce their own resources through some photosynthesis

Vine:
plants that root in terrestrial soil but cannot stand upright without structural support from other plants

Woody vine/liane/liana:
plants that climb using roots, stems, petioles, tendrils or hooks

Herbaceous vine:
predominantly ferns that climb using roots and grow within subcanopies, disturbed areas, or forest edges

Nest epiphyte:
*Collospermum* and *Astelia* species that form large canopy clumps which trap and store organic material and water
Number of species

- ferns
- woody vines
- orchids
- stem parasites
- shrubs
- nests
- succulents
- hemi-epiphytic trees
Creeping

*Hymenophyllum armstrongii*
*H. australis*
*H. bivalve*
*H. dilatatum*
*H. flabellatum*
*H. flexuosum*
*H. frankliniae*
*H. lyallii*
*H. malingii*
*H. minimum*
*H. multifidum*
*H. peltatum*
*H. rarum*
*H. revolutum*
*H. rufescens*
*H. sanguinolentum*
*H. villosum*
Creeping

Cardiomanes reniforme
Grammitis ciliata
Lastreopsis hispida
Loxogramme dictyopteris
Microsorum novae-zealandiae
M. pustulatum subsp. pustulatum
Polyphlebium colensoi
P. venosum
Pyrrosia eleagnifolia
Rumohra adiantiformis
Tufted

Abrodictyum strictum
A. oblongifolium
A. shuttleworthianum
Blechnum nigrum
Ctenopteris heterophylla
Grammitis billardiorei
G. magellanica subsp. nothofageti
G. magellanica subsp. magellanica
G. pseudociliata
G. rawlingsii
G. rigida
Hymenophyllum pulcherrimum
H. scabrum
Pendent

Asplenium flaccidum
A. polyodon
Huperzia varia
Tmesipteris elongata
T. horomaka
T. lanceolata
T. sigmatifolia
T. tannensis
Climbing

Arthropteris tenella
Blechnum filiforme
Lygodium articulatum
Microsorum scandens
Fern growth forms

- creeping
- tufted
- pendent
- climbing
Pendent

Earina aestivalis
E. autumnalis
E. mucronata
Winika cunninghamii
Non-pendent

Mat

Adelopetalum tuberculatum
Ichthyostomum pygmaeum
Taeniophyllum norfolkianum

Tufted

Drymoanthus adversus
D. flavus

Erect

Pterostylis silvicultrix
shrubs
Brachyglottis kirkii
Griselinia lucida
Pittosporum

Pittosporum cornifolium
P. kirkii
Collospermum

Collospermum hastatum
C. microspermum
Astelia solandri
lianes & climbers
Tendril climbers

Passiflora tetrandra
Twining leaf climbers

Clematis cunninghamii
C. foetida
C. forsteri
C. paniculata
C. quadribracteolata
Twining stem climbers

Muehlenbeckia australis
M. complexa
Parsonsia capsularis
P. heterophylla
Ripogonum scandens
Tecomanthe speciosa
Root climbers

Freycinetia banksii
Metrosideros albilora
M. carminea
M. colensoi
M. diffusa
M. fulgens
M. perforata
Hook climbers

*Rubus australis*
*R. cissoides*
*R. schmidelioides*
*R. squarrosus*
Woody vine growth forms

- Roots
- Twining stems
- Twining leaves
- Hooks
- Tendrils
stem parasites
Beech mistletoes

**Alepis flavida**

**Peraxilla colensoi**

**P. tetrapetala**
Green mistletoes

Ileostylus micranthus
Tupeia antarctica
Pygmy mistletoes

*Korthalsella clavata*
*K. lindsayi*
*K. salicornioides*
Parasitic vines

Cassytha paniculata
Peperomia

Peperomia blanda
P. tetraphylla
P. urvilleana
hemi-epiphytic trees
Metrosideros

Metrosideros robusta
M. bartlettii
Obligate:
Almost always as epiphytes

Facultative:
Just as often terrestrial as epiphytic
Occasional:
Survive and reproduce

Accidental:
Do not often survive to reproductive maturity
Thank you

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