

# Fern Names and their Origins

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## INTRODUCTION

The names of plants, whether they be in Latin, English, Maori or any other language, have a special fascination for many people quite independent of the intrinsic attraction of the plants themselves. Common names are often intricately associated with the folklore of the countryside extending back over many centuries and may vary considerably from district to district, even within a small area like Britain. In New Zealand, where there has been a mixing not only of cultures but also of plants from different hemispheres, we find widely disparate traditions contributing to the common names of our wild flora. As is to be expected, long-established English names such as spikemoss, horsetail and hart's tongue are still used for various introduced ferns, but it is interesting to note that, for native ferns, Maori names such as kiokio, mamaku and ponga occur in everyday usage alongside the delightfully evocative spleenwort, maidenhair and adder's tongue of European tradition, as well as the more mundane finger fern, jointed fern, rasp fern and silver fern which have developed from more recent Australasian origins.

Equally interesting are the botanical names for plants which are mostly derived from Latin or Greek. In earlier times these names would have been more widely appreciated but, with the decline of the classics in our educational system, there is a new generation of botanists largely unaware of their original meanings. Even for those who can remember some basic Latin and can cope easily with epithets such as *alpina*, *ciliata*, *dentata* and *pinnata*, there are occasional pitfalls. I suspect, for example, that few people are aware that in classical usage the name *aethiopicum* applies to the whole of Africa south of Egypt and Libya and for historical reasons has frequently been applied to plants first described from South Africa. Likewise, although many will be familiar with names such as *colensoi*, *cunninghamii*, *hookeri*, *kirkii*, and *lyallii*, which reflect the work of earlier botanists who contributed so much to the understanding of our native flora, few will know those commemorated in the common genera *Gleichenia* or *Doodia*, let alone the 17th century Portuguese Commander in South America who gave his name to the genus *Paesia*.

I have therefore compiled a list of all the generic and species names associated with the New Zealand fern flora and given a brief outline of their derivation. In most cases, generic names are derived from Greek words whereas species names come from Latin. Those who wish to delve further will find Stearn's *Botanical Latin* the most comprehensive and authoritative text for botany, although Brown's *Composition of scientific words* is wider in scope. Those seeking additional information about earlier botanists should consult the seven volumes of Stafleu & Cowan's *Taxonomic Literature* which provides a truly remarkable wealth of biographic, bibliographic and curatorial information about almost everyone of any significance prior to 1940.

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## DERIVATION OF GENERIC NAMES

All generic names are derived from Greek words unless otherwise stated.

- Adiantum — *adiantos*, unwetted — a reference to the leaves which shed water  
Anarthropteris — *an*, not, *arthron*, joint, *pterus*, fern — a reference to the fronds which are not jointed to the rhizome  
Anogramma — *ano*, above, *gramme*, line — an allusion to the terminal position of the elongated sori  
Arachniodes — *arachne*, spider, *-odes*, like — an allusion to the cobwebby indusium of the type species  
Arthropteris — *arthron*, joint, *pterus*, fern — a reference to the pinnae which are jointed to the rachis, and the fronds to the rhizome  
Asplenium — *aspelon*, Greek name of a fern considered to cure diseases of the spleen  
Athyrium — *athurein*, variable — a reference to the variability of the sorus  
Azolla — *azo*, dry up, *oltyo*, to kill — plants killed by drought  
Blechnum — *blechnon*, Greek name of a fern  
Botrychium — *botrys*, bunch of grapes — an allusion to the arrangement of the sporangia  
Cheilanthes — *cheilos*, lip, *anthos*, flower — a reference to the marginal sori protected by the reflexed edges of the lamina  
Christella — named after Hermann Christ (1833-1933), a Swiss pteridologist  
Ctenopteris — *ktenos*, comb, *pterus*, fern — an allusion to the comb-like fronds  
Cyathea — *kyathos*, cup — a reference to the sometimes cup-shaped indusia  
Cyclosorus — *kyklos*, circle — a reference to the round sorus  
Cyrtonium — *kyrtos*, curved — a reference to the curved, confluent veins  
Cystopteris — *kystis*, bladder, *pterus*, fern — an allusion to the arched or inflated indusium  
Davallia — named after Edmund Davall (1763-1798) an English botanist who settled in Switzerland  
Deparia — *depas*, beaker — a reference to the shallowly cup-shaped indusium in the type species  
Dicksonia — named after James Dickson (1738-1822), a British nurseryman  
Dicranopteris — *dikranon*, two-forked, *pterus*, fern — an allusion to the dichotomous branching habit of the rachis.  
Diplazium — *diplosios*, doubled — a reference to the elongated sori arranged back-to-back in pairs along a vein  
Doodia — named after Samuel Doody, a London pharmacist and botanist  
Dryopteris — *drys*, oak, *pterus*, fern — possibly a reference to the preferred habitat of the European species in oak forests  
Equisetum — Latin *equus*, horse, *seta*, bristle — commonly known as horsetails  
Gleichenia — named after W F Gleichen (1717-1783), a German amateur naturalist  
Grammitis — *gramme*, line — an allusion to the sori arranged in lines  
Histiopteris — *histon*, small web, *pterus*, fern — a reference to the net or webbed veins  
Hymenophyllum — *hymen*, membrane, *phyllon*, leaf — a reference to the membranous fronds  
Hypolepis — *hypo-*, beneath, *lepis*, scale — a reference to the scale-like indusium protecting the sorus  
Isoetes — *iso-*, equal, *etos*, year — a Greek name for an evergreen plant  
Lastreopsis — *-opsis*, like — similar to the genus *Lastrea*  
Leptolepia — *leptos*, delicate, *lepis*, scale — a reference to the delicate indusium  
Leptopteris — *leptos*, delicate, *pterus*, fern — a reference to the delicate frond  
Lindsaea — named after John Lindsay (?-1803) a Jamaican botanist  
Loxosoma — *loxos*, oblique, *soma* band — a reference to the oblique annulus around the sporangium  
Lycopodium *lykos*, wolf, *podion*, little foot — an allusion to the appearance of the branches of some species  
Lygodium — *lygos*, pliant twig — a reference to the twisting, climbing rachises  
Macrothelypteris — *makros*, long — a long, or large, *Thelypteris*

- Marattia — named after G F Maratti (1723-1777), an Italian clergyman and botanist
- Marsilea — named after L F Marsigli (1656-1730), an Italian botanist whose name was latinised to Marsilius
- Nephrolepis — *nephros*, kidney, *lepis*, scale — a reference to the crescent- or kidney-shaped indusia
- Ophioglossum — *ophis*, snake, *glossa*, tongue — an allusion to the shape of the fertile spike
- Osmunda — derivation uncertain but possibly from Osmunder, the Saxon name for the god Thor
- Paesia — named after Duke Fernando Dias Paes Leme, Portuguese commander in South America in the 17th century
- Pellaea — *pellos*, dark-coloured — a reference to the colour of the stipe and rachis
- Phyllitis — *phyllon*, leaf — a reference to the undivided leaf-like appearance of the frond
- Phylloglossum — *phyllon*, leaf, *glossa*, tongue — an allusion to the tongue-like leaves
- Phymatosorus — *phyma*, swelling — a reference to the cavities in which the sori are situated and which appear as pustules on the upper surface of the frond
- Pilularia — Latin *pilula*, a small ball — a reference to the shape of the spore capsules
- Pleurosorus — *pleuron*, rib — an allusion to the sori lying along the ribs or veins
- Pneumatopteris — *pneuma*, breath, *pteris*, fern — a reference to the breathing pores at the base of the pinnae of some species
- Polypodium — *polypodium*, the Greek name of a fern
- Polystichum — *polys*, many, *stichos*, row or line — an allusion to the rows of sori
- Ptilotum — *psilos*, bare — a reference to the naked or leafless stems
- Pteridium — *pteris*, a fern
- Pteris — *pteris*, a fern
- Pyrosia — *pyrrhos*, tawny — a reference to the hairs on the frond
- Rumohra — named after Carl von Rumohr Holstein, a German patron of arts and science
- Salvinia — named after A M Salvinus, professor of Greek in Florence
- Schizaea — *schizo*, to split — a reference to the forking stipe of some species
- Selaginella — diminutive of *selago*, the Latin name for a type of clubmoss
- Sticherus — *stichos*, row — possibly a reference to the sori arranged in two rows on the ultimate lamina segments
- Thelypteris — *thelys*, female, *pteris*, fern — known as lady-fern because of its smaller size than the related *Dryopteris filix-mas*, the male fern
- Tmesipteris — *tmesis*, separation, *pteris*, fern — an allusion to the forked fertile leaves
- Todea — named after H J Tode (1733-1797), a German botanist
- Trichomanes — *trichos*, hair, *manos*, thin — a reference to the bristle-like receptacle in the sorus

## DERIVATION OF SPECIES NAMES

All specific names are derived from Latin words unless otherwise stated.

- adiantiformis — having the form of an *Adiantum*
- aethiopicum — from Africa, usually southern Africa
- affinis — related to
- alpina — alpine
- amaurorachis — Greek *amauros*, dark (in *Hypolepis*, a reference to the red-brown rachis)
- ambigua — changeable (in *Hypolepis*, a reference to the sori which appear to change from a submarginal to marginal position as they mature, and as the lamina margin becomes reflexed)
- aristata — awned, pointed (in *Arachniodes*, a reference to the pointed, ultimate lamina segments)
- armstrongii — named after J F Armstrong (1820-1902) an English botanist who settled in New Zealand
- articulatum — jointed
- arvense — relating to fields or cultivated land

aspera — rough, harsh  
atrovirens — *atro-*, dark, *virens*, green  
australe, -is, -ianum — southern, usually southern hemisphere  
banksii — named after Sir Joseph Banks (1743-1820), a British naturalist on Cook's first voyage to New Zealand  
barbara — foreign  
bifida — forking into two  
biforme — of two forms  
billardierei — named after J J H de Labillardière (1775-1834), a French botanist who collected in Australia  
bivalve — having two valves ( a reference to the indusium in *Hymenophyllum*)  
bulbiferum — producing bulbils  
capillus-veneris — *capillus*, hair, *veneris*, of Venus (in *Adiantum*, an allusion to the fine pinna midribs; commonly known as Venus maidenhair)  
cernuum — drooping, nodding  
chambersii — named after T C Chambers (1930- ), Director of the Royal Botanic Gardens, Sydney, and a student of *Blechnum* for many years  
chathamense — from the Chatham Islands, New Zealand  
ciliata — ciliate, having fine hairs at the margin  
colensoi — named after William Colenso (1811-1899), an English missionary and botanist who settled in New Zealand  
comans — hairy (inappropriate in the case of *Pteris*)  
confluens — united (in *Thelypteris*, a reference to the partially united secondary pinnae)  
cordifolia — *cordatus*, cordate, *folium*, leaf — having leaves or pinnae with two lobes at the base  
coriaceum — leathery  
cretica — from Crete or Greece  
cunninghamii — named after Allan Cunningham (1791-1839), an English botanist who visited New Zealand in 1826 and 1838  
cupressiforme — having the form of *Cupressus*  
cystostegia — Greek *kystis*, bladder, *stego*, cover (in *Polystichum*, a reference to the inflated, arching indusium)  
dealbata — covered with a white powder  
demissum — drooping  
dentata — toothed  
deuterodensum — Greek *deuteros*, second — literally, a second *densum*; *Lycopodium deuterodensum* is a replacement name for *L. densum* Labill. which is illegitimate  
diaphanum — colourless and nearly transparent (scarcely appropriate in the case of *Adiantum*)  
dicarpa — Greek *di-*, two, *karpos*, fruit (in *Gleichenia*, a reference to the two sporangia in each sorus)  
dichotoma — dichotomous, forking into two  
dicksonioides — similar to *Dicksonia*  
dilatatum — broadened, widened  
discolor — having the two faces of the frond of different colours  
distans — distant, far apart (in *Hypolepis*, a reference to the widely spaced pinnae)  
diversifolius — with leaves of different shapes on the same plant  
drummondii — named after James Drummond (1784-1863), a British botanist who settled and collected in Australia  
durum — hard  
elongata — elongated  
endlicherianum — named after S L Endlicher (1804-1849), an Austrian botanist who wrote an early Flora of Norfolk Island  
esculentum — edible  
falcata, -um — falcate, sickle-shaped (usually referring to the pinnae)  
fastigiatum — fastigiate, with all the branches nearly parallel and pointing upwards  
ferrugineum — rusty-brown

fibrosa — fibrous (in *Dicksonia*, a reference to the thick fibrous trunk)  
 filiculoides — fern-like  
 filiforme — thread-like (in *Blechnum*, a reference to the very thin fertile pinnae)  
 filix-femina — lady-fern (supposedly smaller than the male fern, *Dryopteris filix-mas*)  
 filix-mas — male fern  
 fistulosa — hollow  
 flabellatum, -us — fan-shaped  
 flabellifolium — with fan-shaped leaves  
 flaccidum — flaccid, not able to support itself  
 flexuosum — flexuose, wavy  
 fluviale — associated with rivers  
 formosum — handsome, beautiful  
 fragilis — easily broken, brittle  
 fraseri — named after Charles Fraser, superintendent of the Sydney Botanic Gardens, who visited New Zealand in 1825  
 fulvum — tawny, yellowish-brown  
 givenii — named after David Given (1943- ), botanist at Botany Division, DSIR, Christchurch  
 glabella — glabrous  
 gracillimum — most slender  
 heterophylla — Greek *heteros*, different, *phyllon*, leaf (in *Ctenopteris* a reference to the variability of the fronds)  
 hirsutula — roughly hairy  
 hispida, -ula — bristly hairy  
 hookerianum — named after Sir William Hooker (1785-1865), Director of the Royal Botanic Gardens, Kew  
 hymenophylloides — having the form of a *Hymenophyllum*  
 incisa — deeply cut  
 interruptus — interrupted; any irregularity in a symmetrical arrangement  
 kermadecensis — from the Kermadec Islands, New Zealand  
 kirkii — named after Thomas Kirk (1828-1898), a British botanist who settled in New Zealand  
 kraussiana — named after F von Krauss (1812-1890), a German biologist who collected in South Africa  
 lactea — milky (in *Hypolepis*, a reference to the milky substance often seen on the upper surface of the frond)  
 lamprophyllum — Greek *lampros*, shining, *phyllon*, leaf (in *Asplenium*, a reference to the shiny green frond)  
 lanata — woolly  
 lanceolata — lanceolate; broadest in the middle and tapering to both ends  
 laterale — fixed on the side of something  
 lentum — flexible, pliant  
 leptophylla — Greek *leptos*, delicate, *phyllon*, leaf  
 linearis — linear; very narrow with opposite margins parallel  
 lunaria — of the moon (*Botrychium lunaria* is commonly known as moonwort)  
 lyallii — named after David Lyall (1817-1895), British surgeon and naturalist on Ross's Antarctic voyage who visited New Zealand in 1847  
 macilenta — thin  
 magellanica — from the Straits of Magellan, South America  
 malingii — named after Christopher Maling (1843-1917), New Zealand soldier and later employee of the Lands and Survey Department  
 maritimum — growing by the sea  
 media — intermediate  
 medullaris — filled with spongy pith  
 membranaceum — membranous  
 microphylla — Greek, *mikros*, small, *phyllon*, leaf  
 microsora — Greek, *mikros*, small — having small sori

- millefolium — thousand-leaved (in *Hypolepis*, a reference to the finely dissected fronds)  
 milnei — named after J Milne who, with W Macgillivray, made the first collection of plants from the Kermadec Islands during the voyage of the *Herald* in 1854  
 minimum — very small  
 minus — smaller  
 moellendorffii — named after Möllendorff  
 molesta — troublesome  
 mollis — soft  
 multifidum — divided into many parts  
 mutica — blunt, lacking a point  
 nigrum — black  
 norfolkianum — from Norfolk Island  
 northlandicum — from Northland, New Zealand  
 nothofaeti — associated with *Nothofagus* (southern beech)  
 novae-zelandiae — from New Zealand  
 nudum — bare  
 oblongifolium — oblong-shaped leaves or pinnae  
 obtusatum — obtuse, blunt  
 patagonica — from Patagonia, South America  
 pauperequitum — *pauper*, poor, *eques*, horseman — from the Poor Knights Islands, New Zealand  
 peltatum — peltate; fixed at the centre of a stalk; shield-shaped  
 penna-marina — resembling a sea-pen  
 pennigera — pinnate, feathered  
 pentangularis — five-angled  
 petersenii — named after C W Petersen, a sailor, who collected the original specimen of *Deparia petersenii* in 1827  
 petiolatum — petiolate, stalked  
 pinnata — pinnate  
 poeppigiana — named after E F Poeppig (1798-1868), a German botanist who collected in South America  
 polyodon — Greek *polys*, many, *odon* (*odon*), tooth (in *Asplenium*, a reference to the toothed margins of the pinnae)  
 procerum — tall  
 proliferum — proliferous, bearing bulbils  
 pseudociliata — resembling *ciliata* (in *Grammitis*)  
 pulcherrimum — most beautiful  
 raddianum — named after G Raddi (1770-1829), an Italian botanist  
 ramulosum — bearing many branchlets  
 rarum — thin  
 rawlingsii — named after G B Rawlings (1906-1978), a New Zealand forest pathologist and botanist  
 regalis — royal  
 reniforme — kidney-shaped  
 revolutum — rolled back  
 richardii — named after A Richard (1794-1852), a French botanist who wrote an early Flora of New Zealand  
 rigida — rigid  
 rotundifolia — round-leaved  
 rufescens — reddish  
 rufobarbata — red-haired  
 rutifolius — rue-leaved  
 salicina — willow-like  
 saxatilis — found amongst rocks  
 sanguinolentum — *sanguis*, blood, *olens*, smelling (in *Hymenophyllum*, a reference to the strong smell of the dried plant)  
 scaberula — slightly rough to the touch

scabrum — rough to the touch  
 scandens — climbing  
 scariosum — of thin, dry texture and not green  
 scleroprium — Greek *skleros*, hard, *prion*, saw (in *Asplenium*, a reference to the firm pinnae with toothed margins)  
 scolopendrium — Greek *skolopendria*, a kind of fern  
 serpens — creeping  
 serpentinum — snake-like  
 setiferum — bristle-bearing  
 shuttleworthianum — named after Mr Shuttleworth, one of the original collectors of *Asplenium shuttleworthianum*  
 sieberi — named after F W Sieber (1789-1844), a Bohemian botanist who collected in Australia  
 silvaticum — growing in woods  
 sigmatifolia — with sigma-shaped leaves  
 smithii — named after John Smith (1798-1888), curator at the Royal Botanic Gardens, Kew  
 squarrosa — rough with stiff scales or hairs  
 strictum — upright, straight  
 superba — superb, superior  
 tannensis — from Tanna Island, Vanuatu  
 tasmanica — from Tasmania  
 tasmanii — named after Abel Tasman (?1603-1659), a Dutch navigator, traditionally the first European to sight New Zealand  
 tenella — delicate  
 tenuifolia — slender-leaved  
 terrestre — growing on the ground  
 torresiana — named after L V de Torres, a Spanish navigator who discovered Torres Strait  
 tremula — trembling  
 trichomanes — Greek *trichos*, hair, *manos*, thin (in *Asplenium*, a reference to the stalks which remain after the pinnae are shed)  
 trichomanoides — resembling *Trichomanes*  
 varium — different, varied  
 velutina — velvety  
 venosum — conspicuously veined  
 vestitum — clothed, covered  
 villosum — with long soft hairs  
 viridescens — becoming green  
 viridis — green  
 volubile — twining  
 vulcanicum — volcanic (in *Blechnum*, a reference to the type locality for this species from a volcanic mountain in Java)  
 vulgare — common

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