



# Introduction to the Census of the Queensland flora 2021

Queensland Herbarium

Prepared by: Queensland Herbarium, Department of Environment and Science

© State of Queensland, 2021.

The Queensland Government supports and encourages the dissemination and exchange of its information. The copyright in this publication is licensed under a Creative Commons Attribution 3.0 Australia (CC BY) licence.



Under this licence you are free, without having to seek our permission, to use this publication in accordance with the licence terms.

You must keep intact the copyright notice and attribute the State of Queensland as the source of the publication.

For more information on this licence, visit <http://creativecommons.org/licenses/by/3.0/au/deed.en>

### **Disclaimer**

This document has been prepared with all due diligence and care, based on the best available information at the time of publication. The department holds no responsibility for any errors or omissions within this document. Any decisions made by other parties based on this document are solely the responsibility of those parties.

If you need to access this document in a language other than English, please call the Translating and Interpreting Service (TIS National) on 131 450 and ask them to telephone Library Services on +61 7 3170 5470.

This publication can be made available in an alternative format (e.g. large print or audiotape) on request for people with vision impairment; phone +61 7 3170 5470 or email <library@des.qld.gov.au>.

### **Citation**

This document:

Brown GK. 2021. Introduction to the Census of the Queensland Flora 2021. Queensland Department of Environment and Science, Queensland Government.

Census list example:

Bean AR. 2021. Rhamnaceae. In Brown GK. 2021. Census of the Queensland Flora 2021. Queensland Department of Environment and Science, Queensland Government. [www.data.qld.gov.au/dataset/census-of-the-queensland-flora-2021](http://www.data.qld.gov.au/dataset/census-of-the-queensland-flora-2021), accessed 31 December 2021.

### **Cover image**

*Pandanus grayorum*, a new species described from Queensland in 2021; photographs by Ashley R. Field (Queensland Herbarium).

### **Acknowledgements**

This report has been prepared by the Department of Environment and Science (DES). Acknowledgement is made of the contribution of the Queensland Herbarium curators and honorary research associates who have contributed their expertise to the Queensland Herbarium collections and information in this document. In particular Peter Bostock and Ailsa Holland, who compiled the census in previous years and contributed much of the information in this document. Curators are listed below under “Contributors”, as well as in the census list. Acknowledgement is also made to the team in Science Information Services (DES), led by Jason Shen, who support the census generation from our collection management system.

December 2021

# Contents

About the Queensland Herbarium Collections .....	1
Significance of the collections .....	1
Type specimens .....	1
Voucher specimens.....	1
Census of the Queensland Flora .....	2
2021 presentation .....	2
Native status.....	2
Non-native status .....	3
Conservation (NCA) status .....	3
Scientific names .....	3
Data limitations.....	3
Queensland flora statistics 2021 .....	3
Plantae: vascular plants .....	4
Legumes .....	4
Orchids .....	4
Algae .....	5
Plantae: non-vascular plants—bryophytes .....	5
Fungi: macrofungi .....	5
Fungi: lichens .....	6
Table 1. Queensland Flora Statistics: 1913 to 2021 .....	7
Figure 1. Queensland Flora Statistics: 1994 to 2021 .....	9
Useful references and web resources .....	1
Contributors.....	2
Map 1. Regions of the world .....	4
Map 2. States of Australia and pastoral districts of Queensland .....	5
Appendix A: New names and name and status changes 2020 to 2021 .....	6
Ferns and lycophytes .....	6
Flowering plants .....	6
Bryophytes and Liverworts .....	14
Lichens .....	17

## About the Queensland Herbarium Collections

The Queensland Herbarium houses the State's flora collections, comprising more than 880,000 specimens and associated data, of mainly Queensland species of plants, fungi and algae. Botanists and members of the public contribute thousands of specimens to the herbarium collection each year, of which some represent new species records and new distribution records for both native and naturalised species. Most specimens are pressed and dried, and mounted on archival sheets. Some bulky specimens are stored in boxes or paper bags and some delicate specimens are stored in preserving liquid. Each specimen is labelled with the collector, collector's number, date of collection, location, habitat and the plant's features such as bark and flower colour, as provided by the collector. This information is recorded in the HERBRECS database, and the Queensland native and naturalised specimen data are available on Queensland's [open data portal](http://qldspatial.information.qld.gov.au/catalogue/custom/search.page?q=Queensland+Herbarium+records) (<http://qldspatial.information.qld.gov.au/catalogue/custom/search.page?q=Queensland+Herbarium+records>), [Wildlife Online](https://www.qld.gov.au/environment/plants-animals/species-list/) (<https://www.qld.gov.au/environment/plants-animals/species-list/>) and the [Australasian Virtual Herbarium](http://avh.chah.org.au/) (<http://avh.chah.org.au/>). The information is summarised in the [census list](http://www.data.qld.gov.au/dataset/census-of-the-queensland-flora-2021) ([www.data.qld.gov.au/dataset/census-of-the-queensland-flora-2021](http://www.data.qld.gov.au/dataset/census-of-the-queensland-flora-2021)).

A manual explaining [how to collect plant specimens](https://www.qld.gov.au/environment/plants-animals/plants/herbarium/identify-specimens/) (<https://www.qld.gov.au/environment/plants-animals/plants/herbarium/identify-specimens/>) is available. Algae and fungi require specialist processing, please contact us for further information on these groups.

## Significance of the collections

The Queensland Herbarium specimen collections are fundamental and irreplaceable materials and data sources used to document the flora and vegetation of Queensland. They are essential for: taxonomic and phylogenetic research, the application of scientific names, new species discovery, identification of species, mapping the distribution of species, conservation planning and management, ecology of species, biodiversity assessment, state legislation (*Vegetation Management Act*, *Nature Conservation Act*, *Land Protection Act*, *Environmental Protection Act*), weed identification and ecology, agriculture, ethnobotany, forensic botany, molecular biology and education.

## Type specimens

A Type specimen is a specimen assigned by a taxonomist to be the reference point/material for the application of a scientific name. All species with a scientific name have Type specimen(s). New species must be published under international rules that standardise botanical name usage across the world (Turland et al. 2018) and all must be assigned a Type specimen housed in an internationally recognised Herbarium. The Queensland Herbarium holds more than 10,000 Type specimens. High resolution images of the vascular plant Type specimens held at the Queensland Herbarium (BRI) are now available on line at [JSTOR](http://plants.jstor.org) (Global Plants Initiative; <http://plants.jstor.org>) as part of the Global Plants Initiative.

## Voucher specimens

Scientists using plants in their research are usually required to deposit voucher specimens in a herbarium collection as a permanent and verifiable record of the plant sampled. Voucher specimens are also required to verify a new declared weed or threatened species record and are often used as points of reference for published photographs of species, seed bank accessions or other records. Please contact us before collecting voucher specimens to find out what is required and discuss lodgement considerations.

# Census of the Queensland Flora

This census provides authoritative published list of all the known native and naturalised species of plants, algae, fungi and lichens in Queensland, updated from the previous census lists (Brown & Bostock 2020). Queensland species that are only known from cultivation are not included in the census.

The accepted names of all native and naturalised species, subspecies, varieties, forms and hybrids known to occur in Queensland are listed, generated from the Queensland Herbarium specimen information database (HERBRECS) as at 20<sup>th</sup> December 2021. These records are based on the Queensland Herbarium specimens, from collections made over the last 250 years.

## 2021 presentation

The [Census of the Queensland Flora 2021 list](http://www.data.qld.gov.au/dataset/census-of-the-queensland-flora-2021) ([www.data.qld.gov.au/dataset/census-of-the-queensland-flora-2021](http://www.data.qld.gov.au/dataset/census-of-the-queensland-flora-2021)) is provided in spreadsheet compatible format on the Queensland open data portal. The census list includes scientific name, distribution (pastoral district) and status of all currently known Queensland plants, algae, fungi and lichen taxa (see definitions below). Print format for the list is also available on request. A list of abbreviations is also supplied on the open data portal to assist with interpretation.

A list of name and status changes, since the publication of the *Census of the Queensland Flora 2020* (Brown & Bostock 2020), is provided in [Appendix A](#) of this document.

To view Type specimen images on [JSTOR](http://plants.jstor.org) (Global Plants Initiative) <http://plants.jstor.org>, copy and paste species name into the search box. Images of over 178,000 specimens from our collection are also available on the [Atlas of Living Australia](https://www.ala.org.au/) <https://www.ala.org.au/>; these images can be accessed via our [collections page](https://collections.ala.org.au/public/show/co49) <https://collections.ala.org.au/public/show/co49> or through search results of Queensland Herbarium records.

### Census of the Queensland Flora 2021 list (spreadsheet compatible format)

All data is presented in a single spreadsheet (**Full data set**) of Queensland plants, algae, fungi, lichens and cyanobacteria. The full data set includes names (including botanical names broken down into parts, i.e. genus, species etc.), higher classification (e.g. Kingdom, Class, Order), Group Name, distributions based on our collection, and native/naturalised status in Queensland. This spreadsheet can be filtered to show the data that was presented in separate spreadsheets in previous years (e.g. filter on Origin status).

The Group name column enables filtering of the census to specific groups of Queensland plants: **Angiosperms**, flowering plants; **Pteridophytes**, ferns and lycophytes; **Gymnosperms**, conifers and cycads; **Bryophytes** (mosses), **Hornworts** and **Liverworts**, Non-vascular plants; **Fungi**, macrofungi (microfungi are excluded); **Lichens**; **Algae** (filter by kingdom for different groups of algae). More information on the classification of these groups is given below.

Specimen counts are given for each Queensland pastoral district, together with regional (non-Queensland) counts where applicable. Queensland collections not identifiable to a district are recorded under "Qld". Please refer to the explanatory notes and maps provided for World regions ([Map 1](#)) and Australian States and Territories and Queensland pastoral districts ([Map 2](#)) at the end of this document. Note that all pastoral districts of Queensland are spelled out in full in the spreadsheets.

Where species (subspecies or varieties) are recognised to exist, but not yet formally described, a temporary phrase name linked to a herbarium specimen is provided e.g. *Tephrosia* sp. (Barkly Downs S.L.Everist 3384). Taxa that are known to occur in Queensland but which are only represented by verified specimen(s) held at another herbarium are included with the text 'No specimen in BRI' in the notes column of the spreadsheet.

## Native status

Native species are here defined as those that are considered to have evolved in Queensland unaided by humans, or have migrated to and persisted in Queensland without assistance from humans, from an area in which they are considered to be native. This includes species introduced to Queensland in pre-European times. Native species to Queensland are indicated by having '**Native to QLD**' in the Origin status column.

Queensland native plants that have become naturalised in a pastoral district outside their native range are also recorded in a separate list. These have a status of '**Native and Naturalised in QLD**'. Please see the notes column in the spreadsheets for information about where these plants are native or naturalised.

## Non-native status

Naturalised taxa are indicated in the Origin status column as naturalised. There are three types of naturalised taxa recognised in Queensland: naturalised, doubtfully naturalised and formerly naturalised.

**Naturalised** taxa are wildlife introduced to Australia, or Queensland, by human intervention (excluding pre-European introductions) and which have subsequently successfully established populations by reproducing without cultivation or other human intervention. **Formerly naturalised** species are those that were previously considered naturalised but are presumed to have disappeared from the landscape (not collected for more than 50 years). **Doubtfully naturalised** species have populations that may be in the early stages of naturalisation and not yet established in the landscape, or their continued existence in the landscape may be doubtful, for example where the entire Queensland population has been subject to an eradication program. Adventive plants or weeds appearing only in gardens and other cultivated situations are not considered to be either doubtfully naturalised or naturalised. Plants known only from cultivation are excluded from the census.

Many naturalised and doubtfully naturalised species pose a threat to natural ecosystems, agriculture and grazing lands. More than 100 of these species are listed as pests (restricted or prohibited) under the [Queensland Biosecurity Act 2014](https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-2014-007) (<https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-2014-007>).

Previously we used the following symbols to indicate non-native statuses — naturalised (\*), doubtfully naturalised (D) and formerly naturalised (!) — but since the 2019 census they have been spelled out in full.

## Conservation (NCA) status

The conservation status (Critically endangered, Endangered, Extinct, Extinct in the wild, Vulnerable or Near Threatened) is as recorded in the Queensland [Nature Conservation Act 1992](https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-1992-020) (<https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-1992-020>) for species listed in the [Nature Conservation \(Plants\) Regulation 2020](https://www.legislation.qld.gov.au/view/html/inforce/current/si-2020-0137) (<https://www.legislation.qld.gov.au/view/html/inforce/current/si-2020-0137>) as of 10 November 2021. The remaining native plant species have a conservation status of Least Concern and these have no text in the NCA status column.

## Scientific names

The scientific names used in these census list comply with the rules of the [International Code of Nomenclature of Algae, Fungi and Plants \(Shenzhen Code\)](https://www.iapt-taxon.org/nomen/main.php) (<https://www.iapt-taxon.org/nomen/main.php>) (Turland *et al.* 2018) and the [International Code of Nomenclature for Cultivated Plants - Ninth Edition](https://www.ishs.org/scripta-horticulturae/international-code-nomenclature-cultivated-plants-ninth-edition) (<https://www.ishs.org/scripta-horticulturae/international-code-nomenclature-cultivated-plants-ninth-edition>) (Brickell *et al.* 2016). Author abbreviations are available from the [International Plant Names Index](https://www.ipni.org/) (<https://www.ipni.org/>). Names at the level of Kingdom and Phylum follow Cavalier-Smith (2004).

## Data limitations

The census list is a snapshot of the flora of Queensland as at 20<sup>th</sup> December 2021, reflecting the accepted scientific names and distribution of Queensland plants, algae, cyanobacteria, lichens and macrofungi in the State of Queensland based primarily on the Queensland Herbarium collections. Other Australian herbarium collections holding Queensland plant data are not included: see comment above regarding species not represented by a Queensland Herbarium specimen. Additional locations from other herbaria may be accessed from the [Australasian Virtual Herbarium](http://avh.chah.org.au/) (<http://avh.chah.org.au/>).

Readers may submit specimen collections to fill obvious distribution gaps, but are requested to please contact us first and find out what is required. Bryophytes, algae, lichens and fungi usually require additional processing. Note that a permit is required for collecting activities on state lands or where listed threatened species are involved. Contact the Queensland Herbarium [Queensland.Herbarium@qld.gov.au](mailto:Queensland.Herbarium@qld.gov.au)

## Queensland flora statistics 2021

The Queensland native flora is currently represented by 14,778 native species across all groups, nearly double the number listed by Bailey in 1913 (7,781 species). These native species include 1,029 taxa currently listed as threatened: Critically endangered, Endangered, Vulnerable, Near Threatened or Extinct in the wild. The remaining native species are listed as Least Concern (no value is given in NCA status column in the census).

There are currently 1,349 non-native species that are known to have become naturalised in Queensland, including two fungi species. The naturalised flora of Queensland represents more than 15% of the total

known vascular flora according to Queensland Herbarium records. A further 338 species are considered to be doubtfully naturalised. In addition, 26 native Queensland species are recorded here as naturalised outside of their native range. In Queensland, 93 non-native species previously considered to be naturalised have now disappeared from the landscape (not collected for more than 50 years) are here listed as formerly naturalised.

One hundred and eight years of flora species discovery is summarised in [Table 1](#). Census data over the last two decades are summarised in [Figure 1](#).

## Plantae: vascular plants

Vascular plants are those that have distinct vascular tissue (xylem and phloem), as opposed to the non-vascular plants ([see below](#)). They are considered to have evolved from a single freshwater green algal ancestor and now include approximately 250,000 species worldwide. The flowering plants (angiosperms) are the largest group, but Queensland also has many native conifers, cycads (gymnosperms) and ferns (pteridophytes). The classification presented here for angiosperms generally follows that of the [Australian Plant Census](#) (<https://biodiversity.org.au/nsl/services/apc>) with some exceptions. The families of the ferns and lycophytes have recently been updated to follow the Pteridophyte Phylogeny Group classification (PPG1 2016).

Queensland's 8,861 native vascular plant species represent about half of the known Australian vascular flora. More than one third of these species are endemic, that is they are only found in Queensland. New vascular plant species are still being discovered and described in Queensland at the rate of approximately 20 species per year. Queensland has a wide diversity of [regional ecosystems](#) (<http://www.qld.gov.au/environment/plants-animals/plants/herbarium/mapping-ecosystems/>): currently there are 1,424 identified ecosystems which include many unique habitats such as lowland tropical rainforests and desert dune systems. Queensland is also the Australian centre of diversity for several iconic plant groups such as the cycads and zamia palms (45 species) and the ferns and lycophytes (389 species).

The three largest families of native vascular plant species in Queensland are the legumes (Leguminosae) 926 species, the myrtles and eucalypts (Myrtaceae 692 species) and the grasses (Poaceae 642 species); these three families dominate many ecosystems. The next largest families are the orchids (Orchidaceae 440 species – see below), the sedges (Cyperaceae 381 species) and the daisies (Asteraceae 378 species). The family with the most naturalised species is the grasses (Poaceae 190 species), followed by the legumes (Leguminosae 179 species) and the daisies (Asteraceae 139 species).

Gill Brown

## Legumes

In Queensland we use the family name Leguminosae for legumes, rather than the Fabaceae to avoid confusion, as Fabaceae can mean the papilionoid legumes only or all legumes. In this years' census we also use the sub familial classification for the legumes following LPWG (2017). Five of the six subfamilies are found in Queensland and the subfamily is shown in parentheses after the family name, for example, Leguminosae (Papilionoideae).

For reference, in Queensland all genera previously included in:

- Caesalpiniaceae are now in either subfamily Caesalpinioideae, Cercidoideae, Detarioideae or Dialioideae.
- Fabaceae are now in subfamily Papilionoideae
- Mimosaceae are now in the informal 'mimosoid clade' of subfamily Caesalpinioideae.

Gill Brown, Jason Halford

## Orchids

The classification of some families in Australia (e.g. some genera in Orchidaceae) is currently being reviewed by the Australian Plant Census. Classifications used by the Queensland Herbarium may currently differ, but will be updated when this census is complete and available. Where views of researchers differ, synonyms may be found at the [Australian Plant Name Index \(APNI\) website](#) (<https://biodiversity.org.au/nsl/services/apni>).

Mike Mathieson, Ashley Field

## Algae

Algae and Cyanobacteria (blue-green algae) have traditionally been grouped together based on their ability to undertake photosynthesis in aquatic environments. Unlike land plants which evolved from a common ancestor, different lineages of algae have evolved separately in aquatic environments over the last three billion years. These different evolutionary histories are reflected in the current classification scheme which assigns 'algal' species to four of the six Kingdoms of Life on Earth: cyanobacteria (Eubacteria), red and green algae (Plantae), euglenoids and dinoflagellates (Protozoa, not covered in this census) and the brown algae, diatoms and several other phyla (Chromista, algae in the narrow sense). The classification of the 'algae' has changed markedly over the last fifty years and is expected to undergo further revisions as new species are discovered and more intensive studies generate new data. The arrangement of the kingdoms and their constituent cyanobacterial and algal species in this census follows Cavalier-Smith (2004).

Globally, there are approximately 34,000 described species of cyanobacteria and algae, but this is probably only a tenth of the total species as there are many species still to be discovered. These organisms play an important role in aquatic ecosystems underpinning food webs including those supporting commercial fisheries, contributing to global carbon, nitrogen and sulphur cycles, stabilizing sediments to improve water quality and providing habitat for many other species.

Julie Phillips, Glenn McGregor

## Plantae: non-vascular plants—bryophytes

"Bryophyte" is a collective term for three distinct lineages of non-vascular land plants within the Kingdom Plantae: mosses (Bryophyta), liverworts (Marchantiophyta) and hornworts (Anthocerotophyta). The three lineages are grouped together because of shared traits, primarily small stature, lack of vascular tissue and a life cycle including a sporophyte (diploid spore producing phase) and a dominant gametophyte (haploid sexual phase which is the most easily seen form). From an evolutionary viewpoint, the bryophytes mark the transition from aquatic to terrestrial environments and are considered the closest modern relatives of terrestrial plants but the classification and relationships of the three lineages is still debated. There are an estimated 20,000 species worldwide with approximately 1,800 occurring in Australia. With 1,015 known species occurring in Queensland, the Bryophytes are the second-most diverse group of land plants after the angiosperms.

In Queensland, bryophytes occupy a diverse range of habitats from arid environments through to tropical rainforests. They are often among the first species to colonise exposed surfaces such as road cuttings. Along with cyanobacteria, lichens and algae, bryophytes are a critical component of the biological crusts which bind the soil surface in semi-arid to arid areas.

The true mosses (Bryophyta) are the most diverse group and generally have leaves spirally arranged around the stem and usually have a mid-rib (costa). Mosses are either erect or creeping in form and are attached to the substrate via root-like structures (rhizoids).

Liverworts (Marchantiophyta) may be either flat (thallose) or leafy and superficially resemble mosses but leaves lack a costa. Many species grow on other plants, especially in high-rainfall forests and are important as habitats for invertebrates and, together with mosses, are important in regulating forest hydrology.

Hornworts (Anthocerotophyta) have distinctive elongated sporophytes that split longitudinally to release the spores, while the gametophytes are flat. Most species are terrestrial, growing on moist earthen banks or in gaps between ground covers. One genus (*Dendroceros*) is epiphytic on rough barked trees in rainforests.

Documenting the bryophyte flora of Queensland is far from complete with many areas yet to be properly surveyed. However, with more identification resources readily available such as [Bryophytes of Australia](https://profiles.ala.org.au/opus/boa) (<https://profiles.ala.org.au/opus/boa>) and well-illustrated field guides, a greater understanding of the bryophyte diversity and distribution in Queensland is possible.

Andrew Franks

## Fungi: macrofungi

Fungi are an important, oft-overlooked component of ecosystem biodiversity. The functions that fungi perform include decomposition of organic matter, and thereby recycling of nutrients; symbiotic fungi that are associated with plant roots and tissues, assisting with water and nutrient absorption, and in some cases serving a protective role; carbon sequestration; soil structure and stability; bioremediation; and the pathogenic roles associated with disease, such as wood rot and myrtle rust. Notably, many fungi are important food sources for native animals.



Fungi appear in the fossil record at around the same time as plants and animals. The macrofungi recorded here include those with larger, more visible fruiting bodies and are mainly decomposers or mycorrhizal. Two groups are included in this census, reflecting the majority of fungal collections: the sac fungi (Ascomycetes) and the club fungi (Basidiomycetes). The sac fungi are recognised by the typical ascus (plural asci), a cup or sac usually containing eight sexually-produced spores. These include the cup fungi, morels, truffles and most lichens. Club fungi are recognised by their distinctive basidium (plural basidia), or club-shaped cells, which usually bear sexually-produced spores in groups of four. They include the mushrooms, boletes, puffballs, coral fungi, bracket fungi and many other forms.

The fungal biodiversity of Queensland is still largely unknown and the classification of fungi is undergoing rapid changes due to the results of molecular studies. Recent surveys in south-eastern Queensland have shown that more than 70% of fungi species in this area are new to science. The Queensland Herbarium and the [Queensland Mycological Society](http://qldfungi.org.au/) (<http://qldfungi.org.au/>) are actively involved in discovering and documenting the fungi flora.

Two non-native species are known to be naturalised in Queensland.

Nigel Fechner

## **Fungi: lichens**

The lichens are a group of organisms characterised by a symbiotic relationship between a fungus and a photobiont (photosynthetic organism). The photobiont is usually a green alga or a cyanobacterium (blue-green alga). The fungus is almost always a sac fungus (Ascomycete) but may also be a club fungus (Basidiomycete). About 40% of sac fungi are lichenized. Lichens are considered to be ancient in origin, appearing in the earliest known land floras.

A lichen name is strictly applicable to the fungal component only, the photobiont being classified separately. Most of the green-algal photobionts are not known to occur outside of lichens and many show genetic adaptation to the lichen life-style. Lichenization has occurred at least five times within the Ascomycota and several times in the Basidiomycota.

About half of the known Australian lichens occur in Queensland, with many more yet to be discovered, especially in central and northern Queensland. The Queensland Herbarium and the Queensland Mycological Society are actively involved in discovering and documenting the lichen flora.

The two largest families of lichens in Queensland, Parmeliaceae (330 species) and Graphidaceae (310 species) are the 7<sup>th</sup> and 8<sup>th</sup> largest families in the Queensland census behind only Leguminosae, Poaceae, Myrtaceae, Orchidaceae, Cyperaceae and Asteraceae.

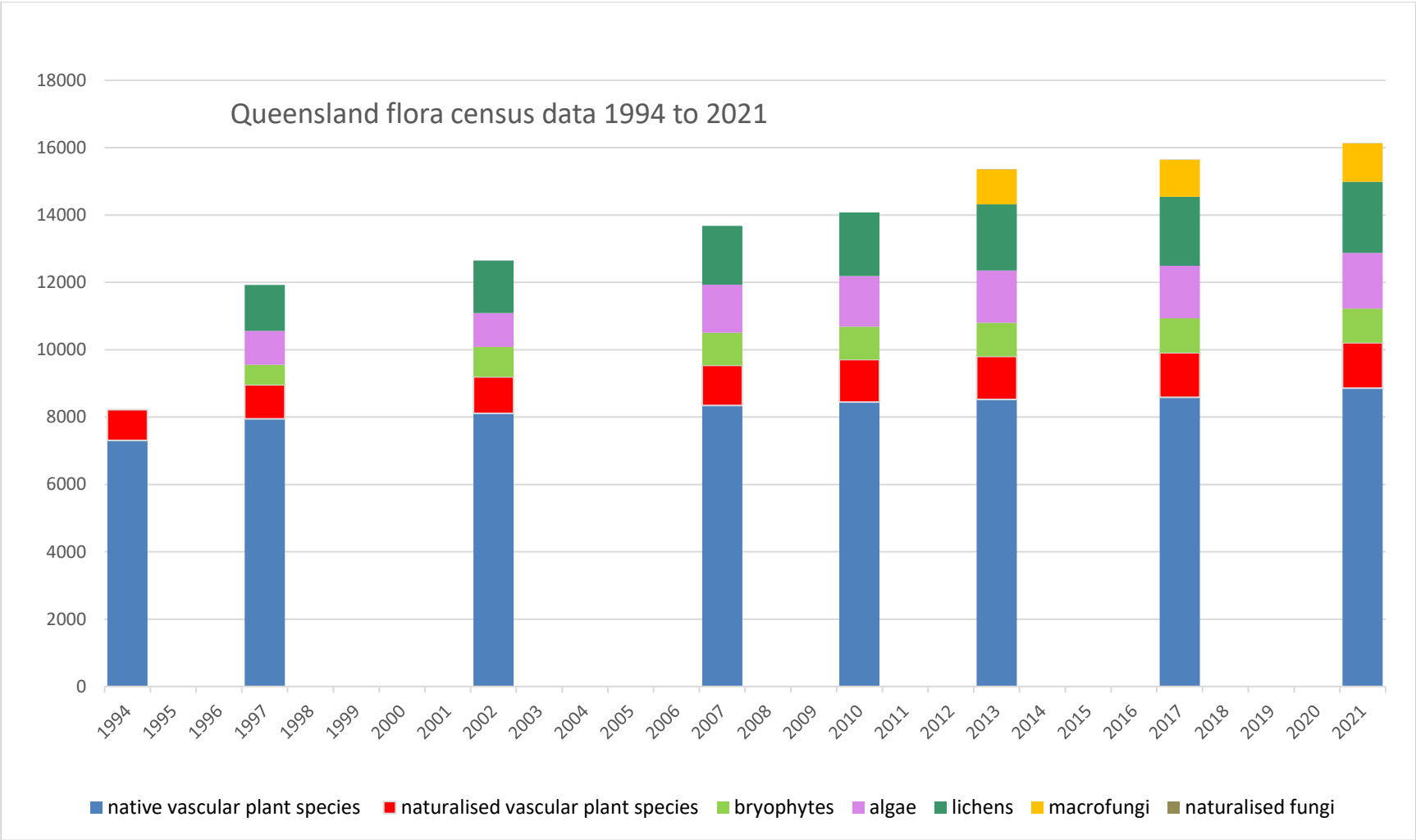
Rod Rogers

**Table 1. Queensland Flora Statistics: 1913 to 2021**

	Kingdom & Group	2021	2020	2019	2018	2013	2010	2007	2002	1997	1994	1913 (Bailey)
Plantae: Angiosperms (flowering plants)	Native	8,384	8,184	8,175	8,163	8,078	8,005	7,901	7,677	7,512	7,252	4,626
	Naturalised	1,329	1,328	1,325	1,320	1,262	1,241	1,175	1,066	1,001	910	297
	Subtotal	9,713	9,512	9,490	9,483	9,340	9,246	9,076	8,743	8,513	8,162	4,923
Plantae: Gymnosperms (conifers, cycads and allies)	Native	74	66	66	66	64	62	62	59	60	54	29
	Naturalised	7	6	6	6	6	6	6	3	3	3	0
	Subtotal	81	72	72	72	70	68	68	62	63	57	29
Plantae: Pteridophytes (ferns and lycophytes)	Native	403	390	390	386	381	381	381	377	374	375	233
	Naturalised	11	11	11	11	11	11	10	10	7	5	0
	Subtotal	414	401	401	397	392	392	391	387	381	380	233
Plantae: non-vascular plants	Mosses (Bryophyta)	554	565	573	571	561	555	556	574	595	not listed	360
	Liverworts & hornworts	461	458	437	452	437	421	411	315	not listed	not listed	113
Algae (Plantae, Chromista and Cyanobacteria)	Algae	1,650	1,566	1,566	1,654	1,555	1,505	1,433	1,011	1,004	not listed	718

	Kingdom & Group	2021	2020	2019	2018	2013	2010	2007	2002	1997	1994	1913 (Bailey)
Fungi (lichens and macrofungi groups)	Lichens	2,115	2,114	2,079	2,067	1,962	1,888	1,742	1,558	1,370	not listed	828
	Native Macrofungi	1,137	1,142	1,138	1,116	1,036	1,026	not listed	not listed	not listed	not listed	874
	Naturalised fungi	2	2	2	2	2						
Totals	Total native	14,778	14,485	14,464	14,385	14,076	—	—	—	—	—	7,781
	Total naturalised	1,349	1,347	1,344	1,339	1,279	1,258	1,191	1,079	1,011	918	297
	Overall total native and naturalised	16,127	15,832	15,845	15,724	15,355	—	—	—	—	—	8,078

**Figure 1. Queensland Flora Statistics: 1994 to 2021**



## Useful references and web resources

- Australasian Virtual Herbarium, Council of Heads of Australasian Herbaria <http://avh.chah.org.au>
- Australian Plant Census, IBIS database, Centre for Australian National Biodiversity Research, Council of Heads of Australasian Herbaria, <https://biodiversity.org.au/nsl/services/apc>
- Australian Plant Name Index, IBIS database, Centre for Australian National Biodiversity Research, Australian Government, Canberra <https://biodiversity.org.au/nsl/services/APNI>
- Bailey, F.M. (1913). *Comprehensive Catalogue of Queensland Plants both Indigenous and naturalised*. Government Printer: Brisbane.
- Bean, A.R. (2016). *Collecting and Preserving Plant Specimens, a Manual*. Second edition. Queensland Herbarium, Department of Science, Information Technology and Innovation: Brisbane  
<http://www.qld.gov.au/environment/plants-animals/plants/herbarium/identify-specimens>
- Brown, G.K. & Bostock, P.D. (eds) (2020). *Introduction to the Census of the Queensland Flora 2020; Census of the Queensland Flora 2020* (census list) Queensland Herbarium, Department of Environment and Science: Brisbane.  
<https://www.data.qld.gov.au/dataset/census-of-the-queensland-flora-2020>
- Brickell, C.D., Alexander, C., Cubey, J.J., David, J.C., Hoffman, M.H.A., Leslie, A.C., Malecot, V., Xiaobai Jin (2016). International Code of Nomenclature for Cultivated Plants. 9th Edn. *Scripta Horticulturae* 18.  
<https://www.ishs.org/scripta-horticulturae/international-code-nomenclature-cultivated-plants-ninth-edition>
- Bryophytes of Australia, Australian Biological Resources Study and Council of Heads of Australasian Herbaria, <https://profiles.ala.org.au/opus/boa>
- Cavalier-Smith, T. (2004). Only six kingdoms of life. *Proceedings of the Royal Society of London*, B. 271: 1251–1262.
- Cowan, R.A. (2018). AMANI: Australian Marine Algal Name Index. Australian Biological Resources Study and Murdoch University, Perth. <http://www.anbg.gov.au/amanisearch/servlet/amanisearch>
- Global Plants Initiative. Global Plants on JSTOR. <http://plants.jstor.org>
- Guiry, M.D. & Guiry, G.M. (2016). AlgaeBase. World-wide electronic publication, National University of Ireland, Galway. <http://www.algaebase.org>
- Kubitzki K. (ed). 1990 onward. *The Families and Genera of Vascular Plants* Springer-Verlag: Berlin;Heidelberg, Germany.
- Index Fungorum. <http://www.indexfungorum.org/Index.htm>
- LPWG (2017). A new subfamily classification of the Leguminosae based on a taxonomically comprehensive phylogeny. *Taxon* 66:44-77. <https://doi.org/10.12705/661.3>
- May, T.W., Milne, J., Wood, A.E., Shingles, S., Jones, R.H. & Neish, P. (2004). Interactive catalogue of Australian fungi, version 3.0. Australian Biological Resources Study, Canberra / Royal Botanic Gardens Melbourne.  
<http://data.rbgs.vic.gov.au/cat/index.php/fungicatalogue>
- McCarthy, P.M. (2006). *Checklist of Australian Liverworts and Hornworts*. Australian Biological Resources Study, Canberra. Version 6 April 2006. [http://www.anbg.gov.au/abrs/liverwortlist/liverworts\\_intro.html](http://www.anbg.gov.au/abrs/liverwortlist/liverworts_intro.html).
- McCarthy, P.M. (2018). *Checklist of the Lichens of Australia and its Island Territories*. Australian Biological Resources Study, Canberra. Version 17 May 2018. <http://www.anbg.gov.au/abrs/lichenlist/introduction.html>.
- Mycobank database. <http://www.mycobank.org>
- PPG1 (2016). A community based classification of ferns and lycophytes. *J Syst. Evol.* 54:563–603
- Stevens, P. F. (2001 onwards). Angiosperm Phylogeny Website. Version 14 (APG4) [and more or less continuously updated since]. <http://www.mobot.org/MOBOT/research/APweb>
- The International Plant Name Index. <http://www.ipni.org>
- The Plant List (2013). Version 1.1. Published on the Internet; <http://www.theplantlist.org/>.
- Tropicos.org. Missouri Botanical Garden. <http://www.tropicos.org>
- Turland, N. J., Wiersema, J. H., Barrie, F. R., Greuter, W., Hawksworth, D. L., Herendeen, P. S., Knapp, S., Kusber, W.-H., Li, D.-Z., Marhold, K., May, T. W., McNeill, J., Monroe, A. M., Prado, J., Price, M. J. & Smith, G. F. (eds.) 2018: International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code) adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017. *Regnum Vegetabile* 159. Glashütten:

Koeltz Botanical Books. [Title page](https://www.iapt-taxon.org/nomen/pages/intro/title_page.html) [https://www.iapt-taxon.org/nomen/pages/intro/title\\_page.html](https://www.iapt-taxon.org/nomen/pages/intro/title_page.html)

Wiersema, J.H. (continuously updated). Taxonomic information on cultivated plants in the usda-ars germplasm resources information network (GRIN). National Germplasm Resources Laboratory Agricultural Research Service United States Department of Agriculture Beltsville, Maryland 20705-2350, U.S.A. <https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomyquery.aspx>

World Flora Online. : WFO (2019): World Flora Online. Published on the Internet: <http://www.worldfloraonline.org>.

## Contributors

[\*= Queensland Herbarium honorary research associate or external contributor]

### Flowering Plant families (Angiosperms):

Curator/s	Families
Bean A.R.	Acanthaceae, Amaranthaceae, Apiaceae, Araliaceae, Asteraceae, Balsaminaceae, Caprifoliaceae, Chrysobalanaceae, Cleomaceae, Hydatellaceae, Hydroleaceae, Lamiaceae, Lythraceae, Martyniaceae, Mazaceae, Melastomataceae, Myodocarpaceae, Passifloraceae, Pedaliaceae, Plantaginaceae, Ranunculaceae, Rhamnaceae, Rosaceae, Solanaceae, Sphenocleaceae, Styliaceae, Thymelaeaceae, Viburnaceae
Bean A.R. (Leptospermoideae); Guymer G.P. & Jessup L.W.*(Myrtoideae)	Myrtaceae
Bean A.R. & Forster P.I.	Lamiaceae
Booth R.	Centrolepidaceae, Cyperaceae, Juncaceae, Restionaceae
Brown G.K.	Leguminosae (Caesalpinioideae, mimosoid clade and Papilionoideae)
Clarkson J.R.*	Erythroxylaceae
Crayn D.*	Ericaceae
Edginton M.	Brassicaceae, Chenopodiaceae, Cucurbitaceae, Santalaceae, Scrophulariaceae, Viscaceae
Fechner N.A.	Cannabaceae, Linderniaceae, Papaveraceae, Phrymaceae, Stackhousiaceae
Fensham R.J.	Burmanniaceae, Eriocaulaceae, Pandanaceae, Thismiaceae
Field A.R.	Aristolochiaceae, Cymodoceaceae, Moraceae, Nepenthaceae, Nymphaeaceae, Pandanaceae, Ruppiaceae, Zosteraceae
Forster P.I.	Agavaceae, Amaryllidaceae, Apocynaceae, Araceae, Arecaceae, Argophyllaceae, Asphodelaceae, Begoniaceae, Blandfordiaceae, Bromeliaceae, Cactaceae, Campanulaceae, Campynemataceae, Carpodetaceae, Commelinaceae, Convallariaceae, Costaceae, Crassulaceae, Dioscoreaceae, Doryanthaceae, Dracaenaceae, Escalloniaceae, Flagellariaceae, Haemodoraceae, Hyacinthaceae, Iridaceae, Loganiaceae, Melanthiaceae, Melianthaceae, Moringaceae, Penthoraceae, Phyllanthaceae, Piperaceae, Ptaeroxylaceae, Putranjivaceae, Quintiniaceae, Ripogonaceae, Rutaceae, Smilacaceae, Stemonaceae, Taccaceae, Violaceae, Xanthorrhoeaceae, Xyridaceae
Forster P.I. and Edginton M. ( <i>Grevillea</i> & <i>Hakea</i> )	Proteaceae
Forster P.I. and Guymer, G.P.	Sapindaceae
Forster P.I. and Halford D.A.	Euphorbiaceae, Picrodendraceae, Rubiaceae
Forster P.I. and Ngugi L.B.	Zingiberaceae

Guymer G.P.	Alseuosmiaceae, Balanopaceae, Bignoniaceae, Bombacaceae, Byttneriaceae, Capparaceae, Corynocarpaceae, Dilleniaceae, Elaeagnaceae, Elaeocarpaceae, Gesneriaceae, Helicteraceae, Icacinaceae, Leptaulaceae, Loranthaceae, Malvaceae, Nothofagaceae, Orobanchaceae, Pennantiaceae, Pentapetaceae, Sapindaceae, Simaroubaceae, Stemonuraceae, Surianaceae, Tamaricaceae, Winteraceae
Guymer G.P. & McDonald W.J.*	Sterculiaceae
Halford D.A.	Brownlowiaceae, Convolvulaceae, Gyrostemonaceae, Muntingiaceae, Sparrmanniaceae
Halford J.J.	Leguminosae (Caesalpinioideae, Cercidoideae, Detarioideae and Dialioideae), Haloragaceae, Juncaginaceae, Maundiaceae, Menyanthaceae, Moraceae, Nelumbonaceae, Polygonaceae
Jackes B.	Vitaceae
Jessup L.W.*	Actinidiaceae, Akaniaceae, Aphanopetalaceae, Aristolochiaceae, Atherospermataceae, Austrobaileyaceae, Basellaceae, Berberidaceae, Berberidopsidaceae, Bixaceae, Burseraceae, Calycanthaceae, Cardiopteridaceae, Caricaceae, Clusiaceae, Cochlospermaceae, Connaraceae, Datisceae, Dichapetalaceae, Dipentodontaceae, Elatinaceae, Eupomatiaceae, Hamamelidaceae, Hanguanaceae, Hernandiaceae, Himantandraceae, Juglandaceae, Lauraceae, Malpighiaceae, Memecylaceae, Menispermaceae, Myristicaceae, Myrsinaceae, Ochnaceae, Opiliaceae, Paulowniaceae, Samolaceae, Sphenostemonaceae, Theaceae, Trimeniaceae, Turneraceae, Ulmaceae
Jessup L.W.* & Field A.R.	Annonaceae, Ebenaceae
Jessup L.W.* & Halford J.J.	Achariaceae, Anacardiaceae, Aquifoliaceae, Celastraceae, Cornaceae, Monimiaceae, Symplocaceae, Urticaceae
Jessup L.W.* & Laidlaw M.J.	Cunoniaceae
Laidlaw, M.J.	Calceolariaceae, Heliconiaceae, Salicaceae, Tetrachondraceae
Mathieson, M.T.	Byblidaceae, Droseraceae, Frankeniaceae, Goodeniaceae, Lentibulariaceae, Macarthuriaceae, Molluginaceae, Zygophyllaceae
Mathieson M.T. & Field A.R. (northern)	Orchidaceae
McDonald W.J.*	Combretaceae
Ngugi L.B.	Asparagaceae, Cannaceae, Marantaceae, Meliaceae, Musaceae, Sapotaceae
Pennay C.	Alismataceae, Aponogetonaceae, Cabombaceae, Ceratophyllaceae, Hydrocharitaceae, Limnocharitaceae, Mayacaceae, Najadaceae, Onagraceae, Philydraceae, Podostemaceae, Pontederiaceae, Potamogetonaceae, Typhaceae
Pollock A.	Nyctaginaceae
Simmons, C.L.	Casuarinaceae, Pittosporaceae
Thompson E.J.*	Boraginaceae, Polygalaceae
Thompson E.J.* & Kelman D. ( <i>Bambusa</i> )	Poaceae
Wang J.	Alliaceae, Alstroemeriaceae, Anthericaceae, Balanophoraceae, Boryaceae, Cecropiaceae, Colchicaceae, Gentianaceae, Hemerocallidaceae, Hugoniaceae, Hypoxidaceae, Johnsoniaceae, Laxmanniaceae, Liliaceae, Linaceae, Luzuriagaceae, Maesaceae, Pentaphragmaceae, Petermanniaceae
Wood A.	Geraniaceae, Lecythidaceae, Magnoliaceae, Strelitziaceae, cultivated species (all flowering

	plants)
Yates N.	Petiveriaceae, Phytolaccaceae, Plumbaginaceae, Tropaeolaceae

**Conifers, cycads and allies (Gymnosperms):** Forster P.I.; Edginton M. (Pinaceae)

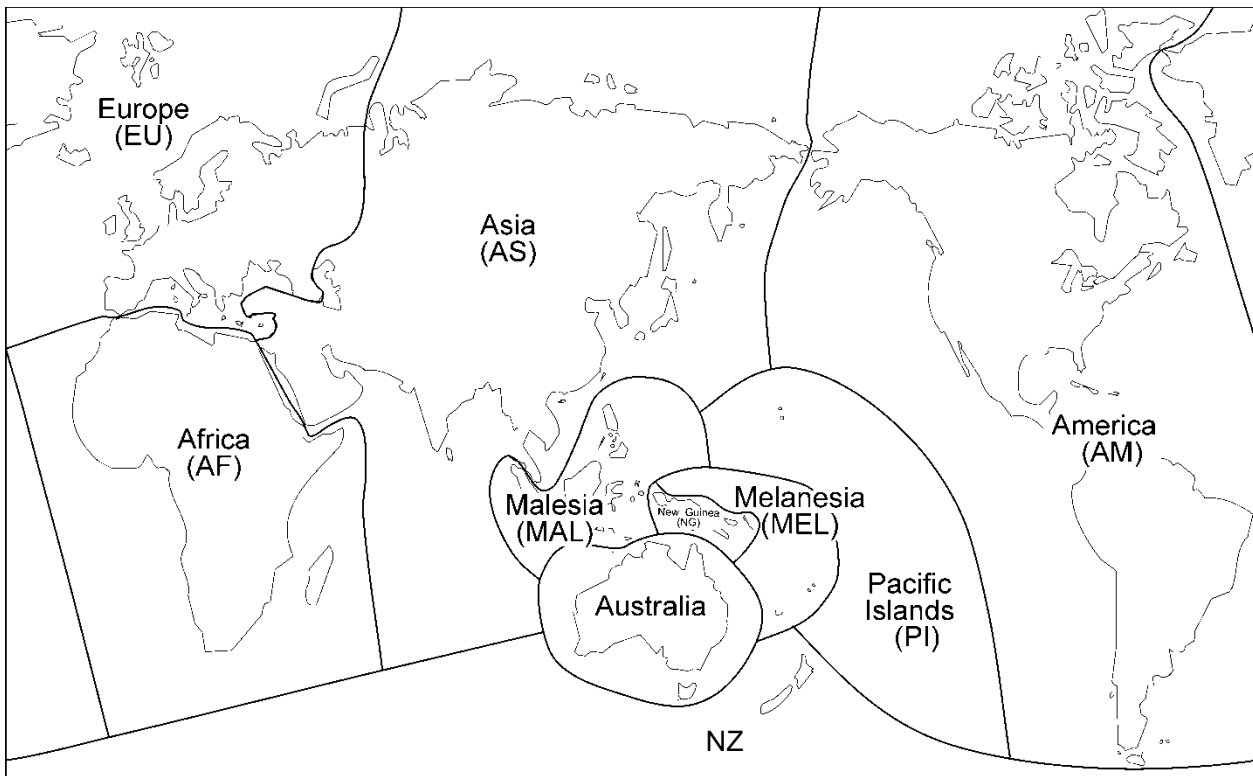
**Ferns and lycophytes (Pteridophytes):** Field A.R. & Bostock P.D.\*

**Mosses, liverworts, hornworts (Bryophytes):** Franks A.J.

**Algae (all groups):** McGregor G.B.\* (freshwater); Phillips J.A.\* (marine)

**Lichens:** Rogers, R.W.\* & Holland, A.E.\*

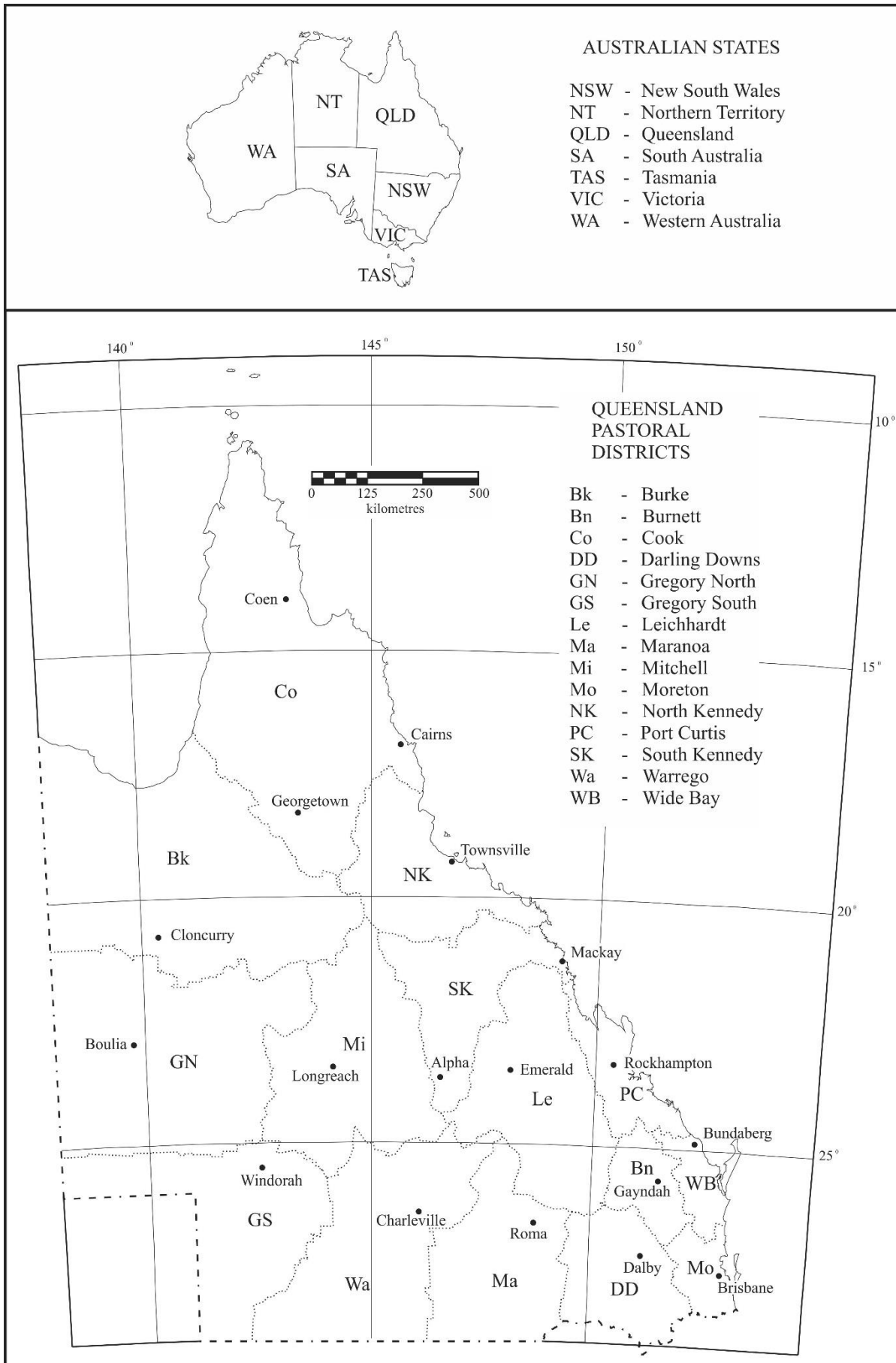
**Macrofungi:** Fechner N.A., with assistance from Guard F.\*



**Map 1. Regions of the world**



## Map 2. States of Australia and pastoral districts of Queensland



## Appendix A: New names and name and status changes 2020 to 2021

### Ferns and lycophytes

Family	Botanical name 2020	Botanical name 2021
Blechnaceae	<i>Blechnum neohollandicum</i> Christenh. x <i>Blechnum medium</i> (R.Br.) Christenh.	<i>Blechnum medium</i> (R.Br.) Christenh. x <i>Blechnum neohollandicum</i> Christenh.; Hybrid parents reversed to alphabetical order.
Blechnaceae	<i>Blechnum rupestre</i> (Kaulf. ex Link) Christenh. x <i>Blechnum lineare</i> (J.Sm.) Christenh.	<i>Blechnum lineare</i> (J.Sm.) Christenh. x <i>Blechnum rupestre</i> (Kaulf. ex Link) Christenh.; Hybrid parents reversed to alphabetical order.
Dryopteridaceae	<i>Parapolystichum decompositum</i> (R.Br.) Ching	<i>Lastreopsis decomposita</i> (R.Br.) Tindale
Dryopteridaceae	<i>Parapolystichum microsorum</i> (Endl.) Labiak, Sundue & R.C.Moran subsp. <i>microsorium</i>	Not listed; Previously misidentified. Not a QLD species.
Lycopodiaceae	<i>Phlegmariurus phlegmaria</i> (L.) T.Sen & U.Sen	Not listed; Previously misidentified. Not a QLD species.
Ophioglossaceae	<i>Botrychium australe</i> R.Br.	<i>Sceptridium australe</i> (R.Br.) Lyon

### Flowering plants

Family	Botanical name 2020	Botanical name 2021
Agavaceae	<i>Agave vivipara</i> L. and <i>Agave vivipara</i> L. var. <i>vivipara</i>	<i>Agave angustifolia</i> Haw.
Agavaceae	<i>Agave vivipara</i> L. var. <i>vivipara</i>	<i>Agave angustifolia</i> Haw. 'Marginata'
Amaranthaceae	<i>Gomphrena</i> sp. (Doongmabulla E.J.Thompson+ GAL137)	<i>Gomphrena axillaris</i> R.W.Davis & J.Palmer; Newly described species
Annonaceae	<i>Polyalthia nitidissima</i> (Dunal) Benth.	<i>Huberantha nitidissima</i> (Dunal) Chaowasku
Apocynaceae	<i>Hoya revoluta</i> Wight ex Hook.f.	<i>Hoya inconspicua</i> Hemsl.
Apocynaceae	<i>Marsdenia araujacea</i> F.Muell.	<i>Leichhardtia araujacea</i> (F.Muell.) P.I.Forst.
Apocynaceae	<i>Marsdenia australis</i> (R.Br.) Druce	<i>Leichhardtia australis</i> R.Br.
Apocynaceae	<i>Marsdenia brevifolia</i> (Benth.) P.I.Forst.	<i>Leichhardtia brevifolia</i> (Benth.) P.I.Forst.
Apocynaceae	<i>Marsdenia brevis</i> P.I.Forst.	<i>Leichhardtia brevis</i> (P.I.Forst.) P.I.Forst.
Apocynaceae	<i>Marsdenia connivens</i> P.I.Forst.	<i>Leichhardtia connivens</i> (P.I.Forst.) P.I.Forst.
Apocynaceae	<i>Marsdenia coronata</i> Benth.	<i>Leichhardtia coronata</i> (Benth.) P.I.Forst.
Apocynaceae	<i>Marsdenia cymulosa</i> Benth.	<i>Leichhardtia cymulosa</i> (Benth.) P.I.Forst.

Family	Botanical name 2020	Botanical name 2021
Apocynaceae	<i>Marsdenia flavescens</i> A.Cunn. ex Hook.	<i>Leichhardtia flavescens</i> (A.Cunn. ex Hook.) P.I.Forst.
Apocynaceae	<i>Marsdenia fraseri</i> Benth.	<i>Leichhardtia fraseri</i> (Benth.) P.I.Forst.B256
Apocynaceae	<i>Marsdenia geminata</i> (R.Br.) P.I.Forst.	<i>Gymnema geminatum</i> R.Br.
Apocynaceae	<i>Marsdenia glandulifera</i> C.T.White	<i>Leichhardtia glandulifera</i> (C.T.White) P.I.Forst.
Apocynaceae	<i>Marsdenia hemiptera</i> Rchb.	<i>Leichhardtia racemosa</i> (F.Muell. ex Benth.) P.I.Forst.
Apocynaceae	<i>Marsdenia jenseni</i> P.I.Forst.	<i>Leichhardtia jenseni</i> (P.I.Forst.) P.I.Forst.
Apocynaceae	<i>Marsdenia lloydii</i> P.I.Forst.	<i>Leichhardtia lloydii</i> (P.I.Forst.) P.I.Forst.
Apocynaceae	<i>Marsdenia longiloba</i> Benth.	<i>Leichhardtia longiloba</i> (Benth.) P.I.Forst.
Apocynaceae	<i>Marsdenia longipedicellata</i> P.I.Forst.	<i>Gymnema longipedicellatum</i> (P.I.Forst.) P.I.Forst.
Apocynaceae	<i>Marsdenia micradenia</i> (Benth.) P.I.Forst.	<i>Leichhardtia micradenia</i> (Benth.) P.I.Forst.
Apocynaceae	<i>Marsdenia microlepis</i> Benth.	<i>Leichhardtia microlepis</i> (Benth.) P.I.Forst.
Apocynaceae	<i>Marsdenia microlepis</i> Benth. x <i>Marsdenia viridiflora</i> R.Br.	<i>Leichhardtia microlepis</i> (Benth.) P.I.Forst. x <i>Leichhardtia viridiflora</i> (R.Br.) P.I.Forst.
Apocynaceae	<i>Marsdenia muelleri</i> (Benth.) P.I.Forst.	<i>Gymnema muelleri</i> Benth.
Apocynaceae	<i>Marsdenia paludicola</i> P.I.Forst.	<i>Leichhardtia paludicola</i> (P.I.Forst.) P.I.Forst.
Apocynaceae	<i>Marsdenia pleiadenia</i> (F.Muell.) P.I.Forst.	<i>Gymnema pleiadenium</i> F.Muell.
Apocynaceae	<i>Marsdenia pumila</i> P.I.Forst.	<i>Leichhardtia pumila</i> (P.I.Forst.) P.I.Forst.
Apocynaceae	<i>Marsdenia rara</i> P.I.Forst.	<i>Leichhardtia rara</i> (P.I.Forst.) P.I.Forst.
Apocynaceae	<i>Marsdenia rostrata</i> R.Br.	<i>Leichhardtia rostrata</i> (R.Br.) P.I.Forst.
Apocynaceae	<i>Marsdenia</i> sp. (Silver Plains P.I.Forster PIF17005)	<i>Leichhardtia</i> sp. (Silver Plains P.I.Forster PIF17005)
Apocynaceae	<i>Marsdenia straminea</i> P.I.Forst.	<i>Gymnema stramineum</i> (P.I.Forst.) P.I.Forst.
Apocynaceae	<i>Marsdenia suborbicularis</i> (K.Schum.) P.I.Forst.	<i>Gymnema suborbiculare</i> K.Schum.
Apocynaceae	<i>Marsdenia tricholepis</i> (Schltr.) P.I.Forst.	<i>Gymnema tricholepis</i> Schltr.
Apocynaceae	<i>Marsdenia velutina</i> R.Br.	<i>Leichhardtia velutina</i> (R.Br.) P.I.Forst.
Apocynaceae	<i>Marsdenia viridiflora</i> R.Br.	<i>Leichhardtia viridiflora</i> (R.Br.) P.I.Forst.
Apocynaceae	<i>Marsdenia viridiflora</i> R.Br. subsp. <i>viridiflora</i>	<i>Leichhardtia viridiflora</i> (R.Br.) P.I.Forst. subsp. <i>viridiflora</i>
Apocynaceae	<i>Marsdenia viridiflora</i> subsp. <i>tropica</i> P.I.Forst.	<i>Leichhardtia viridiflora</i> subsp. <i>tropica</i> (P.I.Forst.) P.I.Forst.
Aquifoliaceae	<i>Ilex</i> sp. (Gadgarra B.P.Hyland RFK2011)	<i>Ilex corymbosa</i> A.J.Ford & Halford

Family	Botanical name 2020	Botanical name 2021
Araceae	<i>Gonatopus boivinii</i> (Decne.) Engl.	<i>Gonatopus boivinii</i> (Decne.) Engl.; Status changed from Doubtfully Naturalised to Naturalised
Araceae	<i>Spirodela oligorrhiza</i> (Kurz) Hegelm.	<i>Landoltia punctata</i> (G.Mey.) Les & D.J.Crawford
Araceae	<i>Typhonium blumei</i> Nicolson & Sivad.	Not listed; no longer recognised in QLD
Araliaceae	Not listed	<i>Trachymene composita</i> (Domin) B.L.Burtt var. <i>composita</i> ; Newly recorded in QLD
Asparagaceae	<i>Asparagus aethiopicus</i> L. 'Sprengeri'	<i>Asparagus aethiopicus</i> L.
Asphodelaceae	<i>Bulbine bulbosa</i> (in part)	<i>Bulbine fraseri</i> Kunth; New name for QLD.
Asphodelaceae	<i>Haworthia coarctata</i> Haw. subsp. <i>coarctata</i>	Not listed; only specimen in QLD is cultivated.
Asteraceae	<i>Coronidium lanosum</i> Paul G.Wilson	<i>Coronidium gnaphalioides</i> (Domin) Jeanes
Asteraceae	Not listed	<i>Erigeron bellioides</i> DC.; New naturalised species for QLD
Asteraceae	Not listed	<i>Leiocarpa serpens</i> (J.Everett) Paul G.Wilson; Newly recorded in QLD
Asteraceae	<i>Podolepis capillaris</i> (Steetz) Diels	<i>Siemssenia capillaris</i> Steetz
Asteraceae	<i>Podolepis muelleri</i> (Sond.) G.L.R.Davis	<i>Panaetia muelleri</i> Sond.
Asteraceae	<i>Porophyllum ruderae</i> (Jacq.) Cass.	<i>Porophyllum ruderae</i> (Jacq.) Cass.; Status changed from Doubtfully Naturalised to Naturalised
Asteraceae	<i>Porophyllum ruderae</i> (Jacq.) Cass.	<i>Porophyllum ruderae</i> subsp. <i>macrocephalum</i> (DC.) R.R.Johnson; Subspecies newly recognised in QLD
Boraginaceae	<i>Ehretia</i> sp. (Whitfield Range R.Jago 17)	<i>Ehretia dissita</i> A.R.Bean; Newly described species
Burmanniaceae	Not listed	<i>Gymnosiphon queenslandicus</i> B.Gray & Y.W.Low; New species for QLD
Carpodetaceae	<i>Abrophyllum ornans</i> (F.Muell.) Hook.f. ex Benth. var. <i>ornans</i>	<i>Abrophyllum ornans</i> (F.Muell.) Hook.f.
Carpodetaceae	<i>Abrophyllum ornans</i> var. <i>microcarpum</i> F.M.Bailey	<i>Abrophyllum ornans</i> (F.Muell.) Hook.f.
Cleomaceae	<i>Cleome aculeata</i> L.	<i>Tarenaya aculeata</i> (L.) Soares Neto & Roalson
Cleomaceae	<i>Cleome cleomoides</i> (F.Muell.) H.H.Iltis	<i>Arivela cleomoides</i> (F.Muell.) R.L.Barrett
Cleomaceae	<i>Cleome gynandra</i> L.	<i>Gynandropsis gynandra</i> (L.) Briq.
Cleomaceae	<i>Cleome limmenensis</i> P.S.Short	<i>Arivela limmenensis</i> (P.S.Short) R.L.Barrett
Cleomaceae	<i>Cleome monophylla</i> L.	<i>Sieruela monophylla</i> (L.) Roalson & J.C.Hall
Cleomaceae	<i>Cleome oxalidea</i> F.Muell.	<i>Areocleome oxalidea</i> (F.Muell.) R.L.Barrett & Roalson
Cleomaceae	<i>Cleome tetrandra</i> DC.	<i>Arivela tetrandra</i> (Banks ex DC.) R.L.Barrett

Family	Botanical name 2020	Botanical name 2021
Cleomaceae	<i>Cleome viscosa</i> L.	<i>Arivela viscosa</i> (L.) Raf.
Combretaceae	<i>Quisqualis indica</i> L.	<i>Combretum indicum</i> (L.) DeFilipps
Convallariaceae	<i>Aspidistra elatior</i> Blume	<i>Aspidistra elatior</i> Blume; Status changed from Naturalised to Doubtfully Naturalised
Costaceae	<i>Costus speciosus</i> (J.Koenig) Sm.	<i>Hellenia speciosa</i> (J.Koenig) S.R.Dutta
Cyperaceae	<i>Fimbristylis schultzii</i> Boeckeler in part.	<i>Fimbristylis cephalophora</i> F.Muell.; Newly recorded in QLD
Cyperaceae	<i>Fimbristylis</i> sp. (Elizabeth Springs R.J.Fensham 3743)	<i>Fimbristylis dichotoma</i> (L.) Vahl
Cyperaceae	Not listed	<i>Scleria biflora</i> Roxb. subsp. <i>biflora</i> ; New subspecies for QLD
Ericaceae	<i>Leucopogon</i> sp. (Boolbunda Rock K.M.Sparshott+ KMS623)	<i>Styphelia</i> sp. (Boolbunda Rock K.M.Sparshott+ KMS623)
Ericaceae	<i>Leucopogon</i> sp. (Burrum Heads A.R.Bean 7802)	<i>Styphelia</i> sp. (Burrum Heads A.R.Bean 7802)
Ericaceae	<i>Leucopogon</i> sp. (Coolmunda D.Halford Q1635)	<i>Styphelia</i> sp. (Coolmunda D.Halford Q1635)
Escalloniaceae	<i>Polyosma</i> sp. (Mt Lewis B.P.Hyland RFK25241)	<i>Polyosma globosa</i> A.R.Bean & P.I.Forst.; Newly described species
Escalloniaceae	<i>Polyosma</i> sp. (Mt Windsor Tableland L.W.Jessup+ GJM1374)	<i>Polyosma nigrescens</i> A.R.Bean & P.I.Forst.; Newly described species
Geraniaceae	<i>Pelargonium fragrans</i> Willd.	<i>Pelargonium x fragrans</i> Willd.
Gesneriaceae	Not listed	<i>Boea resupinata</i> Zich & B.Gray; Newly described species
Goodeniaceae	<i>Lechenaultia filiformis</i> (in part)	<i>Lechenaultia peregrina</i> R.W.Jobson & R.L.Barrett; Newly described species
Goodeniaceae	<i>Scaevola collaris</i> F.Muell.	<i>Goodenia collaris</i> (F.Muell.) K.A.Sheph.
Goodeniaceae	<i>Velleia connata</i> F.Muell.	<i>Goodenia connata</i> (F.Muell.) K.A.Sheph.
Goodeniaceae	<i>Velleia glabrata</i> Carolin	<i>Goodenia glabrata</i> (Carolin) K.A.Sheph.
Goodeniaceae	<i>Velleia lyrata</i> R.Br.	<i>Goodenia caroliniana</i> K.A.Sheph.
Goodeniaceae	<i>Velleia macrocalyx</i> de Vriese	<i>Goodenia macrocalyx</i> (de Vriese) K.A.Sheph.
Goodeniaceae	<i>Velleia paradoxa</i> R.Br.	<i>Goodenia paradoxa</i> (R.Br.) K.A.Sheph.
Goodeniaceae	<i>Velleia pubescens</i> R.Br.	<i>Goodenia subsolana</i> K.A.Sheph.
Goodeniaceae	<i>Velleia spathulata</i> R.Br.	<i>Goodenia mystrophylla</i> K.A.Sheph.
Iridaceae	<i>Sisyrinchium iridifolium</i> Kunth	<i>Sisyrinchium micranthum</i> Cav.
Johnsoniaceae	<i>Corynotheca micrantha</i> var. <i>divaricata</i> R.J.F.Hend.	<i>Corynotheca divaricata</i> (R.J.F.Hend.) R.L.Barrett & T.Macfarlane; Newly described species
Lamiaceae	<i>Prostanthera lasianthos</i> Labill.	<i>Prostanthera rupicola</i> B.J.Conn & K.M.Proft; Newly described species

Family	Botanical name 2020	Botanical name 2021
Lauraceae	Not listed	Endiandra inopinata B.Gray; Newly described species
Laxmanniaceae	Arthropodium sp. (Mt Cordeaux P.I.Forster+ PIF22065)	Arthropodium paniculatum (Andrews) R.Br.
Laxmanniaceae	Not listed	Lomandra phillipsiorum Jian Wang ter; Newly described species
Laxmanniaceae	Thysanotus juncifolius (Salisb.) J.H.Willis & Court	Not listed; no longer recognised in QLD
Leguminosae (Caesalpinioideae)	Not listed	Acrocarpus fraxinifolius Arn.; First non-cultivated record for QLD.
Leguminosae (Caesalpinioideae, mimosoid clade)	Acacia ruppilii Maiden & Betche	Acacia torringtonensis Tindale; Acacia ruppilii restricted to NSW.
Leguminosae (Papilionoideae)	Galactia sp. (Andoom A.Morton 1149)	Galactia tenuiflora var. latifolia Baker
Leguminosae (Papilionoideae)	Indigofera adesmiifolia A.Gray x Indigofera australis Willd.	Indigofera brevidens Benth.
Leguminosae (Papilionoideae)	Indigofera rupicola Peter G.Wilson & Rowe	Indigofera fimbriolata Peter G.Wilson; Newly described species
Leguminosae (Papilionoideae)	Not listed	Tephrosia sabulosa R.Butcher; Newly described species
Malvaceae	Gossypium australe F.Muell. x Gossypium nelsonii Fryxell	Gossypium nelsonii Fryxell
Malvaceae	Malvaviscus penduliflorus DC.	Malvaviscus penduliflorus DC. Status changed from Doubtfully Naturalised to Naturalised
Malvaceae	Not listed	Wissadula contracta (Link) R.E.Fr.; Newly recorded in QLD
Marantaceae	Calathea lietzei E.Morren	Goepertia lietzei (E.Moran) Saka
Martyniaceae	Proboscidea lutea (Lindl.) Stapf	Ibicella lutea (Lindl.) Van Eselt.
Meliaceae	Aglaia brassii Merr. & L.M.Perry	Aglaia monticola W.E.Cooper & P.I.Forst.; Newly described species
Myrtaceae	Not listed	Eucalyptus melanophloia F.Muell. x Eucalyptus persistens L.A.S.Johnson & K.D.Hill; New hybrid for QLD
Myrtaceae	Not listed	Rhodomyrtus verecunda A.J.Ford & Peter G.Wilson; Newly described species
Orchidaceae	Acianthus amplexicaulis F.M.Bailey	Stigmatodactylus amplexicaulis (F.M.Bailey) S.P.Lyon, M.A.Clem. & D.L.Jones
Orchidaceae	Acianthus sublestus Dockrill	Stigmatodactylus sublestus (Dockrill) S.P.Lyon, M.A.Clem. & D.L.Jones
Orchidaceae	Bulbophyllum wilkianum T.E.Hunt	Not listed; Previous record were notes only and they were not directly related to the holotype or any specimen.
Orchidaceae	Caladenia sp. (Stanthorpe R.Crane 1448)	Caladenia atrovespa (D.L.Jones) G.N.Backh.

Family	Botanical name 2020	Botanical name 2021
Orchidaceae	<i>Cestichis condylobulbon</i> (Rchb.f.) M.A.Clem. & D.L.Jones	<i>Blepharoglossum condylobulbon</i> (Rchb.f.) L.Li
Orchidaceae	<i>Corunastylis archeri</i> (Hook.f.) D.L.Jones & M.A.Clem.	<i>Corunastylis</i> sp.; Species no longer recognised in QLD
Orchidaceae	<i>Corunastylis rufa</i> (R.Br.) D.L.Jones & M.A.Clem.	<i>Corunastylis</i> sp.; Species no longer recognised in QLD
Orchidaceae	<i>Corunastylis sagittifera</i> (Rupp) D.L.Jones & M.A.Clem.	<i>Corunastylis</i> sp. or <i>Corunastylis tenella</i> ; Species no longer recognised in QLD
Orchidaceae	<i>Dienia montana</i> (Sm.) M.A.Clem. & D.L.Jones	<i>Dienia ophrydis</i> (J.Koenig) Seidenf. & Ormerod
Orchidaceae	<i>Diuris lanceolata</i> Lindl.	Not listed; Erroneously included previously.
Orchidaceae	<i>Diuris x palachila</i> R.S.Rogers	<i>Diuris exitela</i> D.L.Jones
Orchidaceae	<i>Goodyera viridiflora</i> (Blume) Blume	<i>Eucosia umbrosa</i> D.L.Jones & M.A.Clem.
Orchidaceae	<i>Liparis angustilabris</i> (F.Muell.) Blaxell	<i>Cestichis angustilabris</i> (F.Muell.) M.A.Clem. & D.L.Jones
Orchidaceae	<i>Liparis bracteata</i> T.E.Hunt	<i>Cestichis bracteata</i> (T.E.Hunt) M.A.Clem. & D.L.Jones
Orchidaceae	Not listed	<i>Demorchis umbrosa</i> (B.Gray) D.L.Jones & M.A.Clem.; New record for QLD
Orchidaceae	Not listed	<i>Sarcochilus roseus</i> (Clemesha) Clemesha; New record for QLD
Orchidaceae	Not listed	<i>Taeniophyllum cylindrocentrum</i> Schltr.; New record for QLD
Orchidaceae	<i>Papillilabium beckleri</i> (F.Muell. ex Benth.) Dockrill	<i>Plectorrhiza beckleri</i> (F.Muell. ex Benth.) M.A.Clem.
Orchidaceae	<i>Pinalia kingii</i> (F.Muell.) Kuntze	<i>Pinalia moluccana</i> (Schltr. & J.J.Sm.) Schuit., Y.P.Ng & H.A.Pedersen
Orchidaceae	<i>Pterostylis revoluta</i> R.Br.	<i>Pterostylis ampliata</i> (D.L.Jones) D.L.Jones
Orchidaceae	<i>Sarcochilus argochilus</i> D.L.Jones & M.A.Clem.	No longer recognised in QLD. Now <i>Sarcochilus</i> sp., <i>Sarcochilus parviflorus</i> , or <i>Sarcochilus borealis</i>
Orchidaceae	<i>Schistotylus purpuratus</i> (Rupp) Dockrill	<i>Plectorrhiza purpurata</i> (Rupp) M.A.M.Renner
Orchidaceae	<i>Thelymitra nuda</i> R.Br.	<i>Thelymitra queenslandica</i> Jeanes, <i>Thelymitra malvina</i> M.A.Clem., D.L.Jones & Molloy or <i>Thelymitra angustifolia</i> R.Br.
Oxalidaceae	<i>Biophytum petersianum</i> Klotzsch	<i>Biophytum umbraculum</i> Welw.
Phyllanthaceae	<i>Sauropus decrescentifolius</i> J.T.Hunter & J.J.Bruhl	<i>Synostemon elachophyllus</i> subsp. <i>decrescentifolius</i> (J.T.Hunter & J.J.Bruhl) I.Telford & Pruesapan
Piperaceae	<i>Peperomia blanda</i> var. <i>floribunda</i> (Miq.) H.Huber	<i>Peperomia leptostachya</i> Hook. & Arn.
Piperaceae	<i>Peperomia blanda</i> var. <i>floribunda</i> x <i>Peperomia tetraphylla</i>	<i>Peperomia leptostachya</i> Hook. & Arn. x <i>Peperomia tetraphylla</i> (G.Forst.) Hook. & Arn.
Pittosporaceae	<i>Bursaria incana</i> Lindl. x <i>Bursaria tenuifolia</i> F.M.Bailey	<i>Bursaria incana</i> Lindl.
Plantaginaceae	<i>Linaria genistifolia</i>	<i>Linaria dalmatica</i> (L.) Mill.

Family	Botanical name 2020	Botanical name 2021
Plantaginaceae	<i>Plantago varia</i> R.Br.	<i>Plantago debilis</i> R.Br., <i>Plantago myosuroides</i> Lam. or <i>Plantago cunninghamii</i> Decne.
Poaceae	<i>Avena sterilis</i> L.	<i>Avena ludoviciana</i> Durieu
Poaceae	<i>Festuca arundinacea</i> Schreb.	<i>Lolium arundinaceum</i> (Schreb.) Darbysh.
Poaceae	<i>Festuca pratensis</i> Huds.	<i>Lolium pratense</i> (Huds.) Darbysh.
Polygalaceae	Not listed	<i>Comesperma secundum</i> subsp. <i>oligotrichum</i> A.J.Ford & Halford; New subspecies for QLD
Portulacaceae	Not listed	<i>Calandrinia</i> sp. (Nerriga I.R.H.Telford 8677); New record for QLD
Potamogetonaceae	<i>Lepilaena</i>	<i>Zannichellia palustris</i> L.; Newly recorded in QLD
Proteaceae	<i>Persoonia stradbokensis</i> Domin - <i>Persoonia tenuifolia</i> R.Br.	<i>Persoonia stradbokensis</i> Domin
Proteaceae	<i>Persoonia stradbokensis</i> Domin - <i>Persoonia virgata</i> R.Br.	<i>Persoonia stradbokensis</i> Domin x <i>Persoonia virgata</i> R.Br.
Proteaceae	<i>Xylomelum benthamii</i> Orchard	<i>Xylomelum salicinum</i> (Meisn.) Benth.
Rosaceae	<i>Pyracantha fortuneana</i> (Maxim.) H.L.Li	<i>Pyracantha crenulata</i> (D.Don) M.Roem.
Rubiaceae	<i>Hedyotis auricularia</i> L.	<i>Exallage lapeyrousei</i> (DC.) Neupane & N.Wikstr.
Rubiaceae	<i>Hedyotis auricularia</i> var. <i>melanesica</i> Fosberg	<i>Exallage lapeyrousei</i> (DC.) Neupane & N.Wikstr.
Rubiaceae	<i>Hedyotis radicans</i> (Bartl. ex DC.) Miq.	<i>Exallage radicans</i> (DC.) Bremek.
Rubiaceae	Not listed	<i>Pandanus grayorum</i> Callm.; Newly described species
Rubiaceae	<i>Oldenlandia galioides</i> (F.Muell.) F.Muell.	<i>Scleromitron galioides</i> (F.Muell.) K.L.Gibbons
Rubiaceae	<i>Oldenlandia laceyi</i> (Halford) Halford	<i>Scleromitron laceyi</i> (Halford) K.L.Gibbons
Rubiaceae	<i>Oldenlandia mitrasacmoides</i> (F.Muell.) F.Muell. subsp. <i>mitrasacmoides</i>	<i>Paranotis mitrasacmoides</i> (F.Muell.) K.L.Gibbons subsp. <i>mitrasacmoides</i>
Rubiaceae	<i>Oldenlandia mitrasacmoides</i> subsp. <i>nigricans</i> Halford	<i>Paranotis mitrasacmoides</i> subsp. <i>nigricans</i> (Halford) K.L.Gibbons
Rubiaceae	<i>Oldenlandia mitrasacmoides</i> subsp. <i>trachymenoides</i> (F.Muell.) Halford	<i>Paranotis mitrasacmoides</i> subsp. <i>trachymenoides</i> (F.Muell.) Pedley ex K.L.Gibbons
Rubiaceae	<i>Oldenlandia spathulata</i> Halford	<i>Dolichocarpa spathulata</i> (Halford) K.L.Gibbons
Rutaceae	<i>Boronia anemonifolia</i> subsp. <i>variabilis</i> (Hook.) P.G.Neish	<i>Cyanothamnus anemonifolius</i> (A.Cunn.) Duretto & Heslewood
Rutaceae	<i>Boronia anemonifolia</i> subsp. <i>variabilis</i> (Hook.) P.G.Neish	<i>Cyanothamnus anemonifolius</i> subsp. <i>variabilis</i> (Hook.) Duretto & Heslewood
Rutaceae	<i>Boronia anethifolia</i> A.Cunn. ex Endl.	<i>Cyanothamnus quadrangulus</i> Duretto & Heslewood
Rutaceae	<i>Boronia bipinnata</i> Lindl.	<i>Cyanothamnus bipinnatus</i> (Lindl.) Duretto & Heslewood



Family	Botanical name 2020	Botanical name 2021
Rutaceae	<i>Boronia inflexa</i> Duretto subsp. <i>inflexa</i>	<i>Cyanothamnus inflexus</i> (Duretto) Duretto & Heslewood subsp. <i>inflexus</i>
Rutaceae	<i>Boronia inflexa</i> subsp. <i>grandiflora</i> Duretto	<i>Cyanothamnus inflexus</i> subsp. <i>grandiflorus</i> (Duretto) Duretto & Heslewood
Rutaceae	<i>Boronia inflexa</i> subsp. <i>montiazura</i> Duretto	<i>Cyanothamnus inflexus</i> subsp. <i>montiazurus</i> (Duretto) Duretto & Heslewood
Rutaceae	<i>Boronia montimulliganensis</i> Duretto	<i>Cyanothamnus montimulliganensis</i> (Duretto) Duretto & Heslewood
Rutaceae	<i>Boronia occidentalis</i> Duretto	<i>Cyanothamnus occidentalis</i> (Duretto) Duretto & Heslewood
Rutaceae	<i>Boronia polygalifolia</i> Sm.	<i>Cyanothamnus polygalifolius</i> (Sm.) Duretto & Heslewood
Rutaceae	<i>Boronia warangensis</i> Duretto	<i>Cyanothamnus warangensis</i> (Duretto) Duretto & Heslewood
Rutaceae	<i>Boronia yarrowmerensis</i> Duretto	<i>Cyanothamnus yarrowmerensis</i> (Duretto) Duretto & Heslewood
Rutaceae	Not listed	<i>Zieria minutiflora</i> Domin x <i>Zieria smithii</i> Jacks.; New hybrid for QLD
Rutaceae	Not listed	<i>Phebalium cicatricatum</i> A.J.Ford & Duretto; Newly described species
Rutaceae	<i>Zieria furfuracea</i> subsp. <i>euthadenia</i> J.A.Armstr.	<i>Zieria euthadenia</i> (J.A.Armstr.) P.I.Forst.; Newly described species
Rutaceae	<i>Zieria furfuracea</i> subsp. <i>gymnocarpa</i> J.A.Armstr.	<i>Zieria gymnocarpa</i> (J.A.Armstr.) P.I.Forst.; Newly described species
Sapindaceae	<i>Sarcotoechia heterophylla</i> S.T.Reynolds	<i>Synima heterophylla</i> (S.T.Reynolds) Callm. & Buerki
Sapindaceae	<i>Sarcotoechia serrata</i> S.T.Reynolds	<i>Synima serrata</i> (S.T.Reynolds) Callm. & Buerki
Scrophulariaceae	<i>Eremophila glabra</i> (R.Br.) Ostenf. - <i>Eremophila latrobei</i> F.Muell.	<i>Eremophila latrobei</i> F.Muell. subsp. <i>latrobei</i> or <i>Eremophila latrobei</i> subsp. <i>glabra</i> (L.S.Sm.) Chinnock
Scrophulariaceae	<i>Eremophila latrobei</i> subsp. <i>glabra</i> (L.S.Sm.) Chinnock - <i>Eremophila latrobei</i> F.Muell. subsp. <i>latrobei</i>	<i>Eremophila latrobei</i> F.Muell. subsp. <i>latrobei</i>
Scrophulariaceae	Not listed	<i>Nemesia strumosa</i> x <i>Nemesia versicolor</i> ; New hybrid for QLD
Solanaceae	<i>Solanum marginatum</i> L.f.	<i>Solanum mauritianum</i> Scop.
Violaceae	<i>Afrohybanthus aurantiacus</i> (F.Muell. ex Benth.) Flicker	<i>Pigea aurantiaca</i> (F.Muell. ex Benth.) P.I.Forst.
Violaceae	<i>Afrohybanthus enneaspermus</i> (L.) Flicker	<i>Pigea enneasperma</i> (L.) P.I.Forst.
Violaceae	<i>Afrohybanthus stellarioides</i> (Domin) Flicker	<i>Pigea stellarioides</i> (Domin) P.I.Forst.
Violaceae	<i>Hybanthus monopetalus</i> (Schult.) Domin	<i>Pigea monopetala</i> (Schult.) Ging. ex DC.
Vitaceae	<i>Causonis japonica</i> (Thunb.) Raf.	<i>Causonis australasica</i> L.M.Lu & Jackes; Newly described species
Zygophyllaceae	<i>Zygophyllum ammophilum</i> F.Muell.	<i>Roepera ammophila</i> (F.Muell.) Beier & Thulin
Zygophyllaceae	<i>Zygophyllum apiculatum</i> F.Muell.	<i>Roepera apiculata</i> (F.Muell.) Beier & Thulin
Zygophyllaceae	<i>Zygophyllum aurantiacum</i> (Lindl.) F.Muell.	<i>Roepera aurantiaca</i> Lindl.

Family	Botanical name 2020	Botanical name 2021
Zygophyllaceae	<i>Zygophyllum aurantiacum</i> (Lindl.) F.Muell. subsp. <i>aurantiacum</i>	<i>Roepera aurantiaca</i> Lindl. subsp. <i>aurantiaca</i>
Zygophyllaceae	<i>Zygophyllum aurantiacum</i> subsp. <i>cuneatum</i> H.Eichler ex R.M.Barker	<i>Roepera aurantiaca</i> subsp. <i>cuneata</i> (R.M.Barker) Beier & Thulin
Zygophyllaceae	<i>Zygophyllum compressum</i> J.M.Black	<i>Roepera compressa</i> (J.M.Black) Beier & Thulin
Zygophyllaceae	<i>Zygophyllum confluens</i> H.Eichler	<i>Roepera confluens</i> (H.J.Eichler) Beier & Thulin
Zygophyllaceae	<i>Zygophyllum emarginatum</i> H.Eichler	<i>Roepera emarginata</i> (H.J.Eichler) Beier & Thulin
Zygophyllaceae	<i>Zygophyllum eremaeum</i> (Diels) Ostenf.	<i>Roepera eremaea</i> (Diels) Beier & Thulin
Zygophyllaceae	<i>Zygophyllum glaucum</i> F.Muell.	<i>Roepera glauca</i> (F.Muell.) Beier & Thulin
Zygophyllaceae	<i>Zygophyllum howittii</i> F. Muell.	<i>Roepera howittii</i> (F.Muell.) Beier & Thulin
Zygophyllaceae	<i>Zygophyllum humillimum</i> M.Koch ex Tate	<i>Roepera humillima</i> (M.Koch ex Tate) Beier & Thulin
Zygophyllaceae	<i>Zygophyllum iodocarpum</i> F.Muell.	<i>Roepera iodocarpa</i> (F.Muell.) Beier & Thulin
Zygophyllaceae	<i>Zygophyllum prismatothecum</i> F.Muell.	<i>Roepera prismatotheca</i> (F.Muell.) Beier & Thulin
Zygophyllaceae	<i>Zygophyllum rowelliae</i> R.M.Barker	<i>Roepera rowelliae</i> (R.M.Barker) Beier & Thulin
Zygophyllaceae	<i>Zygophyllum simile</i> H.Eichler	<i>Roepera similis</i> (H.J.Eichler) Beier & Thulin
Zygophyllaceae	<i>Zygophyllum</i> sp. (Simpson Desert NP R.G.Atherton 8)	<i>Roepera</i> sp. (Simpson Desert NP R.G.Atherton 8)
Zygophyllaceae	<i>Zygophyllum tesquorum</i> J.M.Black	<i>Roepera tesquorum</i> (J.M.Black) Beier & Thulin

## Bryophytes and Liverworts

Family	Botanical name 2020	Botanical name 2021
<b>Bryophytes</b>		
Amblystegiaceae	<i>Straminergon stramineum</i> (Brid.) Hedenas	Not listed; not native to QLD
Bruchiaceae	<i>Trematodon brachyphyllus</i> Muell.Hal.	<i>Trematodon longicollis</i> Michx.
Bryaceae	<i>Rosulabryum rubens</i> (Hedw.) J.R.Spence	<i>Gemmabryum rubens</i> (Hedw.) J.R.Spence & H.P.Ramsay
Calymperaceae	<i>Calymperes couguiense</i> Besch.	<i>Calymperes moluccense</i> Schwaegr.
Calymperaceae	<i>Syrrhopodon amoenus</i> Broth.	<i>Syrrhopodon confertus</i> Sande Lac.
Calymperaceae	<i>Syrrhopodon prolifer</i> var. <i>mossmansensis</i> W.D.Reese	<i>Syrrhopodon katemensis</i> (Zanten) L.T.Ellis
Fissidentaceae	<i>Fissidens crenulatus</i> var. <i>elmeri</i> (Broth.) Z.Iwats. & Tad.Suzuki	<i>Fissidens crenulatus</i> Mitt.
Fissidentaceae	<i>Fissidens elegans</i> Brid.	Not listed; No specimens in Australia. Doubtful occurrence.

Family	Botanical name 2020	Botanical name 2021
Fissidentaceae	Nanobryum thorsbornei I.G.Stone	Fissidens thorsbornei (I.G.Stone) Brugg.-Nann.
Hypnodendraceae	Not listed	Hypnodendron spininervium (Hook.) A.Jaeger & Sauerb.; Newly recorded in QLD
Lembophyllaceae	Camptochaete subporotrichoides (Broth. & Geh.) Broth.	Not listed; not native to QLD
Lembophyllaceae	Not listed	Camptochaete monolina Meagher & Cairns; Newly described species
Meteoriaceae	Pseudospiridentopsis horrida (Mitt. ex Cardot) M.Fleisch.	Not listed; Previously misidentified. Not native to QLD.
Orthotrichaceae	Macromitrium ramsayae Vitt	Macromitrium ligulare Mitt. or Macromitrium
Pottiaceae	Anoectangium euchloron (Schwaegr.) Mitt.	Not listed; not native to QLD
Pottiaceae	Pseudosymblepharis bombayensis (Muell.Hal.) P.Sollman	Not listed; not native to QLD
Pottiaceae	Tortula willisiana R.H.Zander var. willisiana	Not listed; not native to QLD
Pottiaceae	Weissia leratii (Broth. & Paris) P.Sollman	Not listed; status of this taxon is unresolved QLD
Pylaisiadelphaceae	Not listed	Wijkia extenuata var. caudata Fife; Newly described species
Pylaisiadelphaceae	Trachyphyllum papuanum (Broth.) Broth.	Trachyphyllum inflexum (Harv.) A.Gepp.
Ricciaceae	Riccia fluitans L.	Not listed; not native to QLD
Ricciaceae	Riccia inflexa Taylor	Not listed; not native to QLD
Ricciaceae	Riccia luticola Na-Thalang	Not listed; not native to QLD
Sematophyllaceae	Warburgiella leptorhynchoides (Mitt.) M.Fleisch.	Warburgiella cupressinoides Muell.Hal. ex Broth.
<b>Liverworts</b>		
Acrobolbaceae	Marsupidium knightii Mitt.	Acrobolbus knightii (Mitt.) Briscoe
Acrobolbaceae	Marsupidium surculosum (Nees) Schiffn.	Acrobolbus surculosus (Nees) Trevis.
Adelanthaceae	Calypstrocolea falcata	Adelanthus falcatus (Hook.) Mitt.
Adelanthaceae	Jamesoniella tasmanica	Syzygiella tasmanica (Hook.f. & Taylor) K.Feldberg
Anastrophyllaceae	Anastrophyllum bidens (Reinw. et al.) Steph.	Schizophyllopsis bidens (Reinw., Blume & Nees) Váňa & L.Söderstr.
Aneuraceae	Aneura athertonensis	Lobatiriccardia athertonensis (Hewson) Furuki
Aneuraceae	Riccardia maxima Schiffn.	Aneura maxima (Schiffn.) Steph.
Cephaloziellaceae	Cephaloziella kiaeri	Cylindrocolea kiaeri (Austin) Váňa
Lejeuneaceae	Ceratolejeunea oceanica (Mitt.) Steph.	Ceratolejeunea belangeriana (Gottsche) Steph.

Family	Botanical name 2020	Botanical name 2021
Lejeuneaceae	<i>Cheilolejeunea imbricata</i> (Nees) S.Hatt.	<i>Cheilolejeunea trapezia</i> (Nees) Kachroo & R.M.Schust.
Lejeuneaceae	<i>Cololejeunea cordifolia</i> Steph.	<i>Cololejeunea cordiflora</i> Steph.
Lejeuneaceae	<i>Cololejeunea hasskarliana</i> (Lehm.) Schiffn.	<i>Cololejeunea hasskarliana</i> (Lehm.) Schiffn.
Lejeuneaceae	<i>Cololejeunea thiersii</i> (Pocs) Pocs	<i>Cololejeunea thiersiae</i> (Pocs) Pocs
Lejeuneaceae	<i>Harpalejeunea filicuspis</i>	<i>Microlejeunea filicuspis</i> (Steph.) Heinrichs
Lejeuneaceae	<i>Harpalejeunea latitans</i>	<i>Microlejeunea latitans</i> (Hook.f. & Taylor) Heinrichs
Lejeuneaceae	<i>Mastigolejeunea auriculata</i> (Wilson) Schiffn.	<i>Thysananthus auriculatus</i> (Wilson & Hook.) Sukkharak & Gradst.
Lejeuneaceae	<i>Mastigolejeunea calcarata</i> (Steph.) Verd.	<i>Thysananthus calcaratus</i> (Gradst.) Sukkharak & Gradst.
Lejeuneaceae	<i>Mastigolejeunea humilis</i> (Gottsche) Schiffn.	<i>Thysananthus virens</i> Ångstr.
Lejeuneaceae	<i>Mastigolejeunea indica</i> Steph.	<i>Thysananthus indicus</i> (Steph.) Sukkharak & Gradst.
Lejeuneaceae	<i>Mastigolejeunea ligulata</i> (Lehm. & Lindenb.) Schiffn.	<i>Thysananthus ligulatus</i> (Lehm. & Lindenb.) Sukkharak & Gradst.
Lejeuneaceae	<i>Mastigolejeunea undulata</i> Gradst. & Grolle	<i>Thysananthus frauenfeldii</i> Reichardt
Lejeuneaceae	<i>Mastigolejeunea virens</i> (Aongstr.) Steph.	<i>Thysananthus virens</i> Ångstr.
Lejeuneaceae	Not listed	<i>Lejeunea gracilipes</i> (Taylor) Spruce; Newly recorded in QLD
Lejeuneaceae	<i>Rectolejeunea ocellata</i> Herzog	<i>Cumulolejeunea ocellata</i> (Herzog) R.L.Zhu & L.Shu
Lejeuneaceae	<i>Rectolejeunea queenslandica</i>	<i>Lepidolejeunea queenslandica</i> B.M. Thiers
Lejeuneaceae	<i>Rectolejeunea queenslandica</i> (B.Thiers) X.-L.He	<i>Lepidolejeunea queenslandica</i> B.M.Thiers
Lejeuneaceae	<i>Thysananthus australis</i> (Steph.) B.Thiers & Gradst.	<i>Thysananthus australis</i> (Steph.) B.M.Thiers & Gradst.
Lepidoziaceae	<i>Kurzia hippuroides</i> (Hook.f. & Taylor) Grolle	<i>Kurzia hippuroides</i> (Hook.f. & Taylor) Grolle
Lepidoziaceae	Not listed	<i>Acromastigum carcinum</i> M.A.M.Renner & T.C.Wilson; Newly described species
Lepidoziaceae	<i>Telaranea capilligera</i> (Schwägr.) R.M.Schust.	<i>Neolepidozia capilligera</i> (Schwägr.) Fulford & J.Taylor
Lepidoziaceae	<i>Telaranea centipes</i> (Taylor) R.M.Schust.	<i>Ceramanus centipes</i> (Taylor ex Gottsche
Lepidoziaceae	<i>Telaranea elegans</i> (Colenso) J.J.Engel & G.L.Merr.	<i>Ceramanus elegans</i> (Colenso) E.D.Cooper
Lepidoziaceae	<i>Telaranea quadriseta</i> (Steph.) J.J.Engel & G.L.Merr.	<i>Tricholepidozia quadriseta</i> (Steph.) E.D.Cooper
Lepidoziaceae	<i>Telaranea tetradactyla</i> (Hook.f. & Taylor) E.A.Hodgs.	<i>Tricholepidozia tetradactyla</i> (Hook.f. & Taylor) E.D.Cooper
Lepidoziaceae	<i>Telaranea tridactylis</i> (Lehm. & Lindenb.) J.J.Engel & G.L.Merr.	<i>Neolepidozia tridactylis</i> (Lehm. & Lindenb.) E.D.Cooper
Plagiochilaceae	Not listed	<i>Plagiochila lamellata</i> M.A.M.Renner; Newly described species
Plagiochilaceae	Not listed	<i>Plagiochila meridionalis</i> M.A.M.Renner; Newly described species

Family	Botanical name 2020	Botanical name 2021
Plagiochilaceae	Not listed	Plagiochila minutissima M.A.M.Renner; Newly described species
Plagiochilaceae	Not listed	Dinckleria singularis (Schiffn.) M.A.M.Renner; Newly recorded in QLD
Plagiochilaceae	Not listed	Plagiochila conturbata Steph.; Newly recorded in QLD
Plagiochilaceae	Not listed	Plagiochila daviesiana Steph.; Newly recorded in QLD
Plagiochilaceae	Not listed	Plagiochila queenslandica Steph.; Newly recorded in QLD
Radulaceae	Not listed	Radula tonitrua Pocs & M.A.M.Renner; Newly described species
Radulaceae	Radula acutiloba Steph.	Radula oreopsis M.A.M.Renner
Schistochilaceae	Schistochila philippinensis (Mont.) H.A.Mill.	Schistochila philippinensis (Nees & Mont.) Steph.

## Lichens

Family	Botanical name 2020	Botanical name 2021
Caliciaceae	Buellia polyxanthonica var. isidiata Elix & Kantvilas	Amandinea polyxanthonica var. isidiata (Elix & Kantvilas) Elix.
Lecanoraceae	Not listed	Lecanora galactiniza Nyl.; Newly recorded in QLD
Lecanoraceae	Protoparmelia australiensis (Kantvilas & Elix) Kantvilas, Papong & Lumbsch	Maronina australiensis Hafellner & R.W.Rogers
Lichinaceae	Not listed	Phloepeccania australiensis Henssen; Newly recorded in QLD
Parmeliaceae	Parmelia cunninghamii Cromb.	Notoparmelia cunninghamii (Cromb.) A.Crespo
Parmeliaceae	Parmelia erumpens Kurok.	Notoparmelia erumpens (Kurok.) A.Crespo
Parmeliaceae	Parmelia queenslandensis Hale	Notoparmelia queenslandensis (Hale) A.Crespo
Parmeliaceae	Parmelia signifera Nyl.	Notoparmelia signifera (Nyl.) A.Crespo
Parmeliaceae	Parmelia tenuirima Hook.f. & Taylor	Notoparmelia tenuirima (Hook.f. & Taylor) A. Crespo
Parmeliaceae	Parmotrema chinense (Osbeck) Hale & Ahti	Parmotrema perlatum (Huds.) M.Choisy
Ramalinaceae	Not listed	Megalaria grossa (Pers. ex Nyl.) Hafellner; Newly recorded in QLD