



# Introduction to the Census of the Queensland flora and fungi 2022

## Queensland Herbarium

Prepared by: Queensland Herbarium, Department of Environment and Science

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### **Cover image**

Fungi of Queensland. Top left: *Austroboletus asper*; Middle: *Veloboletus limbatus*, a new species described from Queensland; Bottom right: *Boletellus emodensis*; photographs by Nigel Fechner (Queensland Herbarium).

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December 2022

# Contents

About the Queensland Herbarium Collections .....	1
Significance of the collections .....	1
Type specimens .....	1
Voucher specimens .....	1
Census of the Queensland Flora and Fungi .....	2
2022 presentation .....	2
Native status .....	2
Non-native status .....	3
Conservation (NCA) status .....	3
Scientific names .....	3
Data limitations .....	3
Queensland flora and fungi statistics 2022 .....	4
Plantae: vascular plants .....	4
Legumes .....	4
Orchids .....	5
Algae .....	5
Plantae: non-vascular plants—bryophytes .....	5
Fungi: macrofungi .....	5
Fungi: lichens .....	6
Table 1. Selected Queensland flora and fungi statistics: 1913 to 2022 .....	7
Figure 1. Queensland flora and fungi statistics: 1994 to 2022 .....	9
Useful references and web resources .....	10
Contributors .....	11
Map 1. Regions of the world .....	13
Map 2. States of Australia and pastoral districts of Queensland .....	14
Appendix A: New names, and name and status changes 2021 to 2022 .....	15
Ferns and Lycophytes .....	15
Flowering Plants .....	15
Bryophytes and Liverworts .....	20
Fungi and Lichens .....	21

# About the Queensland Herbarium Collections

The Queensland Herbarium houses the State's flora and fungi collections comprising more than 900,000 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 via the [Australasian Virtual Herbarium](http://avh.ala.org.au/occurrences/search?q=collection_uid%3Aco49) ([http://avh.ala.org.au/occurrences/search?q=collection\\_uid%3Aco49](http://avh.ala.org.au/occurrences/search?q=collection_uid%3Aco49)). The information is summarised in the [census list](http://www.data.qld.gov.au/dataset/census-of-the-queensland-flora-and-fungi-2022) (<http://www.data.qld.gov.au/dataset/census-of-the-queensland-flora-and-fungi-2022>).

Manuals explaining how to collect plant specimens (<https://www.qld.gov.au/environment/plants-animals/plants/herbarium/identify-specimens/>) and fungi specimens ([https://www.qld.gov.au/\\_\\_data/assets/pdf\\_file/0032/67478/fungi-coll-manual.pdf](https://www.qld.gov.au/__data/assets/pdf_file/0032/67478/fungi-coll-manual.pdf)) are available. Algae requires specialist processing, please contact us for further information on this group.

## Significance of the collections

The Queensland Herbarium specimen collections are fundamental and irreplaceable materials and data sources which are used to document the flora, fungi and vegetation of Queensland. They are essential for: taxonomic and phylogenetic research, the application of scientific names, new species discovery, identification of species, mapping and modelling the distribution of species, conservation planning and management, understanding the ecology of species, biodiversity assessment, state legislation (*Vegetation Management Act, Nature Conservation Act, Biosecurity 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 and Fungi

This census provides an 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 2021). 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 7<sup>th</sup> December 2022. These records are based on the Queensland Herbarium specimens, from collections made over the last 250 years.

## 2022 presentation

The *Census of the Queensland Flora and Fungi 2022* list (<http://www.data.qld.gov.au/dataset/census-of-the-queensland-flora-and-fungi-2022>) 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 2021* (Brown 2021), is provided in [Appendix A](#) of this document.

To view Type specimen images on JSTOR (Global Plants Initiative) <http://plants.jstor.org>, copy and paste a species name into the search box. Images of over 200,000 specimens from our collection are also available on the *Atlas of Living Australia* <https://www.ala.org.au/>; these images can be accessed via our [collections page](#) <https://collections.ala.org.au/public/show/co49> or through search results of Queensland Herbarium records.

### Census of the Queensland Flora and Fungi 2022 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 Naturalisation 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 census spreadsheet.

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 Naturalisation 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 Naturalisation 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 14 November 2022. 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 the 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 known flora and fungi of Queensland as at 7<sup>th</sup> December 2022, 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 and fungi statistics 2022

The Queensland native flora and fungi is currently represented by 14,670 native species\* across all groups, nearly double the number listed by Bailey in 1913 (7,781 species). These native species include 1,043 taxa currently listed as threatened: Critically endangered, Endangered, Vulnerable, Near Threatened or Extinct in the wild. The remaining native species are listed as Special Least Concern (825 species) or Least Concern (no value is given in NCA status column in the census).

There are currently 1,354 non-native species that are known to have become naturalised in Queensland, including two fungi species. The naturalised flora and fungi of Queensland represents more than 15% of the total known vascular flora according to Queensland Herbarium records. A further 360 species are considered to be doubtfully naturalised. In addition, 27 native Queensland species are recorded here as naturalised outside of their native range. In Queensland, 103 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 nine years of flora and fungi species discovery is summarised in [Table 1](#). Census data over the last two decades are summarised in [Figure 1](#).

\*Species statistics currently include hybrids, intergrades and cultivars.

## 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/hsl/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 8,853 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 1,449 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 (51 species) and the ferns and lycophytes (399 species).

The three largest families of native vascular plant species in Queensland are the legumes (Leguminosae) 938 species, the myrtles and eucalypts (Myrtaceae 693 species) and the grasses (Poaceae 641 species); these three families dominate many ecosystems. The next largest families are the orchids (Orchidaceae 439 species – see below), the sedges (Cyperaceae 380 species) and the daisies (Asteraceae 376 species). The family with the most naturalised species is the grasses (Poaceae 191 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 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 (Papilioideae).

For reference, in Queensland all genera previously included in:

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

Gill Brown, Jason Halford

## **Orchids**

The classification of plant families in Australia is constantly being reviewed by the Australian Plant Census. Somewhat prominently amongst these, due to their public popularity, is Orchidaceae. Our understanding of relationships among genera and species of Australian native orchids has undergone much refinement over the past two decades and is still ongoing. Such research has provided evidence for a need for change in classification resulting in name changes. In some cases, there are many name changes, even for the same species, over a relatively short time. This has led to a degree of uncertainty regarding orchid names. To review current studies and broadly understand the evolutionary relationships between genera and species in Australian orchids, the Orchid Taxonomy Advisory Group Australasia (OTAGA) has been established, to which the Queensland Herbarium is a contributor, and aims to provide a stable nomenclature for this family over the coming months. Although classification and names currently used by the Queensland Herbarium may differ from other institutions, this will be updated as nomenclatural consensus is reached amongst the states through the OTAGA process and becomes available in subsequent censuses. Where views of researchers and institutions differ, synonyms may be found at the Australian Plant Name Index (APNI) website (<https://biodiversity.org.au/nsl/services/apni>).

Mike Mathieson

## **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). There are an estimated 20,000 species worldwide with approximately 1,800 occurring in Australia.

With over 1,000 known species occurring in Queensland, the Bryophytes are the second-most diverse group of land plants after the angiosperms and occupy a diverse range of habitats from arid environments through to tropical rainforests. 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.

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 primarily 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.

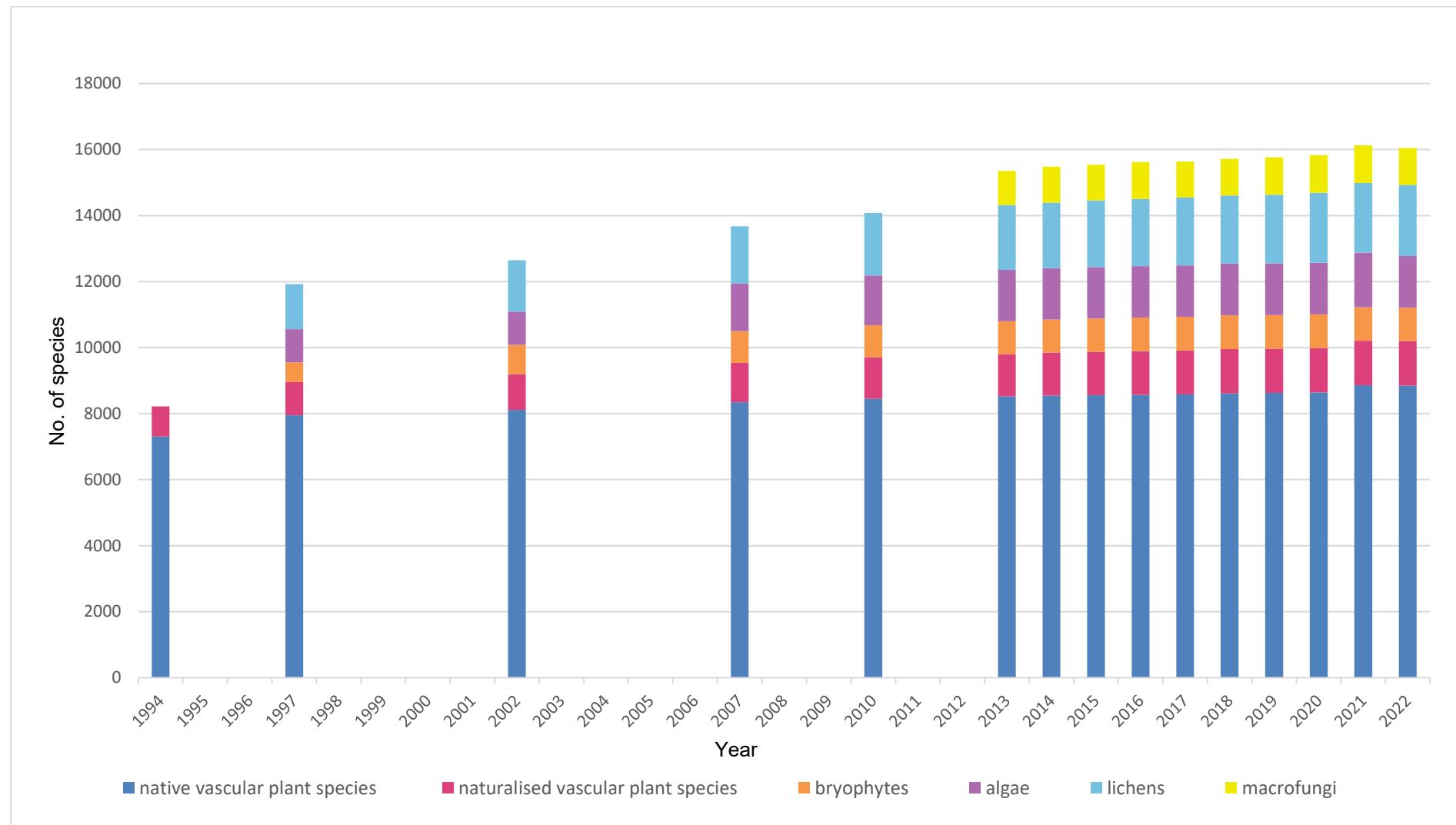
Rod Rogers

**Table 1. Selected Queensland flora and fungi statistics: 1913 to 2022**

	Kingdom & Group	2022	2021	2020	2019	2018	2013	2010	2007	2002	1997	1994	1913 (Bailey)
Plantae: Angiosperms (flowering plants)	Native (inc. 'native and naturalised')	8,380	8,384	8,184	8,175	8,163	8,078	8,005	7,901	7,677	7,512	7,252	4,626
	Naturalised	1,332	1,329	1,328	1,325	1,320	1,262	1,241	1,175	1,066	1,001	910	297
	Subtotal	9,712	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	74	66	66	66	64	62	62	59	60	54	29
	Naturalised	7	7	6	6	6	6	6	6	3	3	3	0
	Subtotal	81	81	72	72	72	70	68	68	62	63	57	29
Plantae: Pteridophytes (ferns and lycophytes)	Native (inc. 'native and naturalised')	399	403	390	390	386	381	381	381	377	374	375	233
	Naturalised	11	11	11	11	11	11	11	10	10	7	5	0
	Subtotal	410	414	401	401	397	392	392	391	387	381	380	233
Plantae: non-vascular plants	Mosses (Bryophyta)	553	554	565	573	571	561	555	556	574	595	not listed	360
	Liverworts & hornworts	452	461	458	437	452	437	421	411	315	not listed	not listed	113

	Kingdom & Group	2022	2021	2020	2019	2018	2013	2010	2007	2002	1997	1994	1913 (Bailey)
Algae (Plantae, Chromista and Cyanobacteria)	Algae	1,569	1,650	1,566	1,566	1,654	1,555	1,505	1,433	1,011	1,004	not listed	718
Fungi (lichens and macrofungi groups)	Lichens	2,148	2,115	2,114	2,079	2,067	1,962	1,888	1,742	1,558	1,370	not listed	828
	Native Macrofungi	1,122	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	2						
Totals	Total native	14,670	14,778	14,485	14,464	14,385	14,076	—	—	—	—	—	7,781
	Total naturalised	1,352	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	27	16,127	15,832	15,845	15,724	15,355	—	—	—	—	—	8,078

**Figure 1. Queensland flora and fungi statistics: 1994 to 2022**



## 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/nsi/services/apc>

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## 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, Caryophyllaceae, Chrysobalanaceae, Cleomaceae, Hydatellaceae, Hydroleaceae, Lamiaceae, Lythraceae, Martyniaceae, Mazaceae, Melastomataceae, Myodocarpaceae, Passifloraceae, Pedaliaceae, Plantaginaceae, Ranunculaceae, Rhamnaceae, Rosaceae, Solanaceae, Sphenocleaceae, Stylidiaceae, 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
Dowling R.	Rhizophoraceae
Edginton M.	Brassicaceae, Chenopodiaceae, Cucurbitaceae, Santalaceae, Scrophulariaceae, Viscaceae
Fechner N.A.	Aizoaceae, Cannabaceae, Linderniaceae, Papaveraceae, Phrymaceae, Portulacaceae, Stackhousiaceae
Fensham R.J.	Burmanniaceae, Eriocaulaceae, Thismiaceae
Fensham R.J. and Field A.R.	Pandanaceae
Field A.R.	Aristolochiaceae, Cymodoceaceae, Nepenthaceae, Nymphaeaceae, Ruppiaceae, Zosteraceae
Field A.R. and Halford, J.J.	Moraceae
Forster P.I.	Agavaceae, Amaryllidaceae, Apocynaceae, Araceae, Arecaceae, Argophyllaceae, Asphodelaceae, Begoniaceae, Blandfordiaceae, Bromeliaceae, Cactaceae, Campanulaceae, Carpodetaceae, Commelinaceae, Convallariaceae, Costaceae, Crassulaceae, Dioscoreaceae, Doryanthaceae, Dracaenaceae, Escalloniaceae, Flagellariaceae, Haemodoraceae, Hyacinthaceae, Iridaceae, Loganiaceae, Melianthaceae, Melianthaceae, Moringaceae, 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, Picridendraceae, Rubiaceae
Forster P.I. and Ngugi L.B.	Zingiberaceae
Guymer G.P.	Alseuosmiaceae, Balanopaceae, Bignoniaceae, Bombacaceae, Byttneriaceae, Capparaceae, Corynocarpaceae, Dilleniaceae, Elaeagnaceae, Elaeocarpaceae, Gesneriaceae, Icacinaceae, Leptaulaceae, Loranthaceae, Malvaceae, Nothofagaceae, Orobanchaceae, Pennantiaceae, Pentapetaceae, Simaroubaceae, Stemonuraceae, Surianaceae, Tamaricaceae, Winteraceae
Guymer G.P. & McDonald W.J.*	Sterculiaceae
Halford D.A.	Brownlowiaceae, Convolvulaceae, Gyrostemonaceae, Muntingiaceae, Sparrmanniaceae
Halford J.J.	Haloragaceae, Juncaginaceae, Leguminosae (Caesalpinoideae, Cercidoideae, Detarioideae and Dialioideae), Maundiaceae, Menyanthaceae, Nelumbonaceae, Polygonaceae
Jackes B.	Vitaceae
Jessup L.W.*	Actinidiaceae, Akaniaeae, Aphanopetalaceae, Atherospermataceae, Austrobaileyaceae, Basellaceae, Berberidaceae, Berberidopsidaceae, Bixaceae, Burseraceae, Calycanthaceae, Cardiopteridaceae, Caricaceae, Clusiaceae, Cochlospermaceae, Connaraceae, Daticaceae, 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
Laidlaw, M.J.	Calceolariaceae, Cunoniaceae, 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.* , Fabillo M. (subfamilies Chloridoideae & Panicoideae) & 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, Pentaphylacaceae, 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)

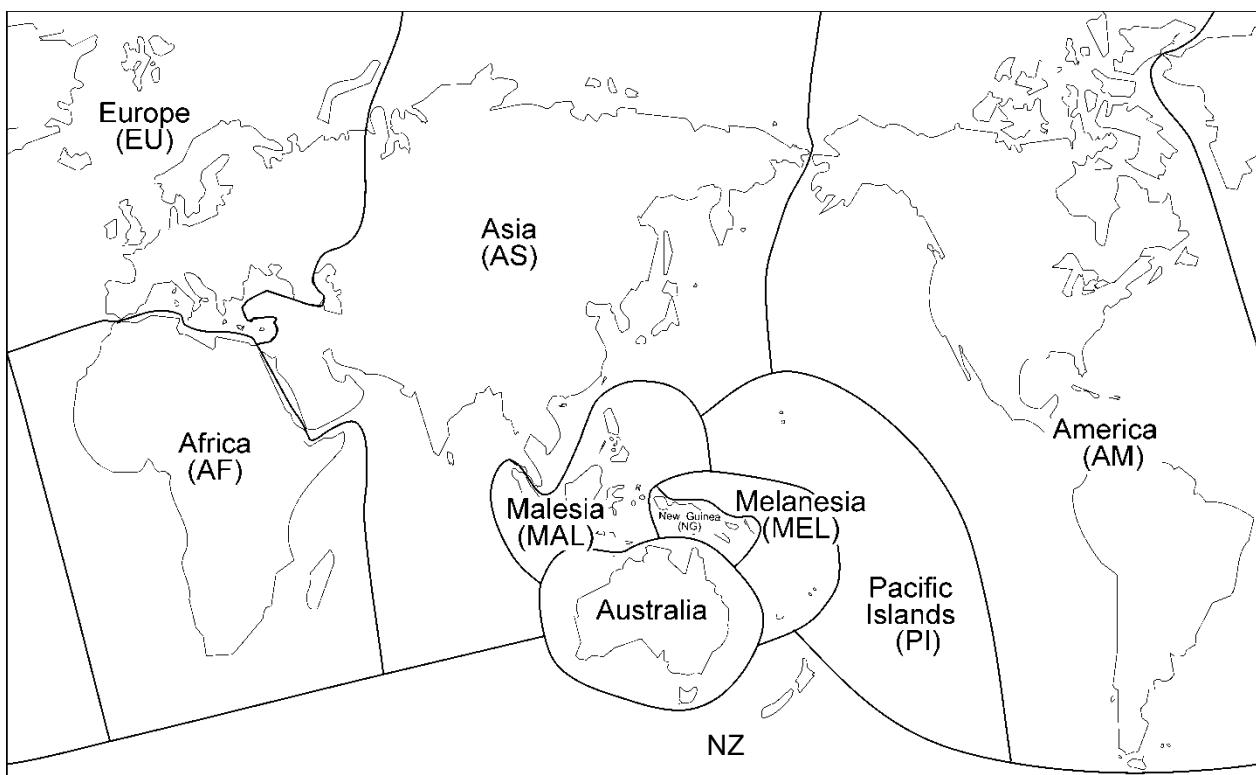
**Ferns and lycophytes (Pteridophytes):** Field A.R. & Bostock P.D.\*

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

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

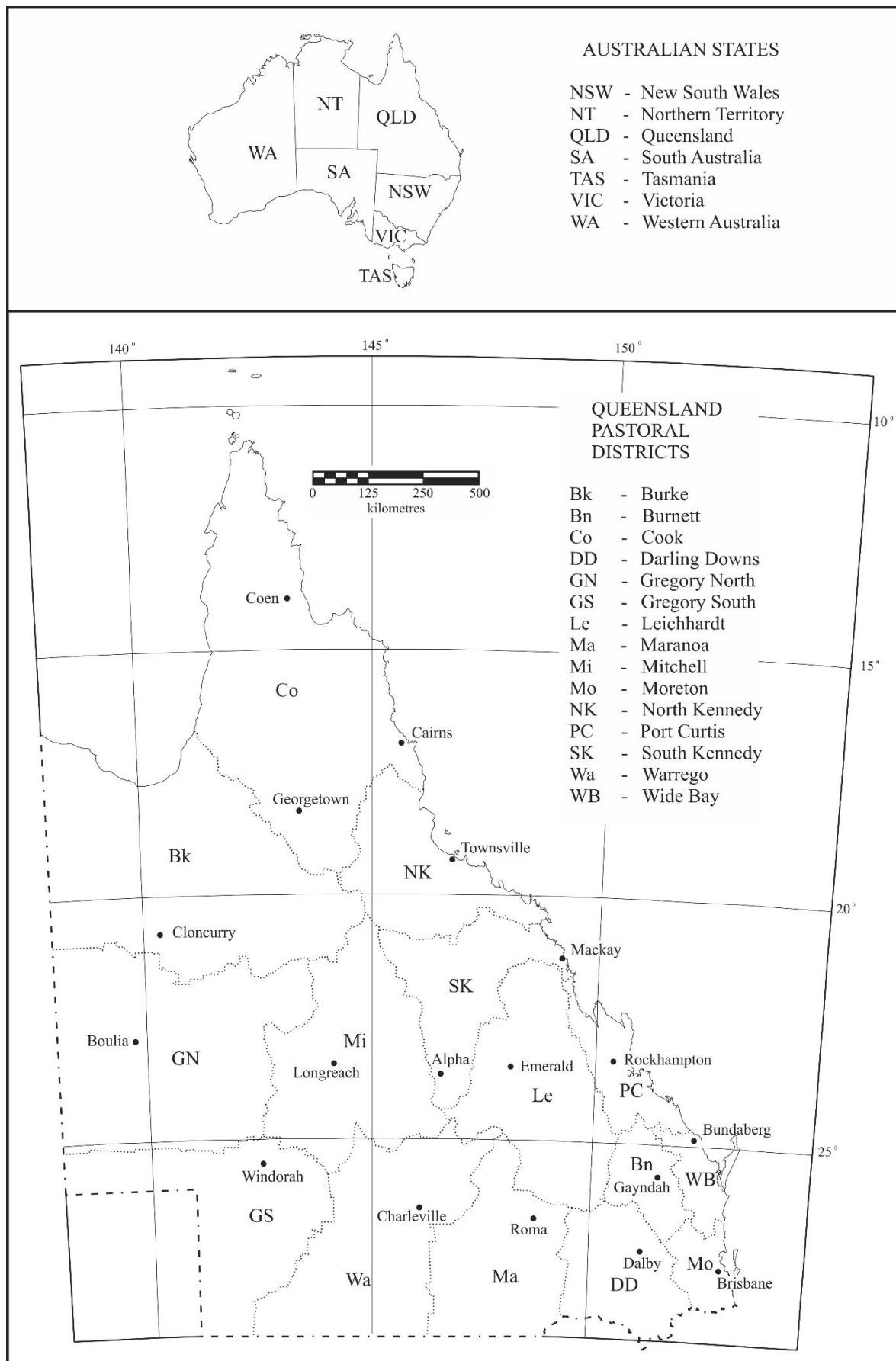
**Lichens:** Rogers, R.W.\* & Holland, A.E.\*

**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 2021 to 2022

### Ferns and Lycophytes

Family	Botanical name 2021	Botanical name 2022
Blechnaceae	<i>Blechnum rupestre</i> (Kaulf. ex Link) Christenh.	<i>Blechnum spinulosum</i> Poir.

### Flowering Plants

Family	Botanical name 2021	Botanical name 2022
Acanthaceae	<i>Andrographis paniculata</i> (Burm.f.) Wall. ex Nees	<i>Andrographis paniculata</i> (Burm.f.) Wall. ex Nees; Status changed from Doubtfully naturalised to Naturalised in QLD
Acanthaceae	<i>Hemigraphis alternata</i> (Burm.f.) T.Anderson	<i>Strobilanthes alternata</i> (Burm.f.) Moylan ex J.R.I.Wood
Acanthaceae	<i>Hemigraphis ciliata</i> S.Moore	<i>Strobilanthes linearifolia</i> (Bremek.) Y.F.Deng
Acanthaceae	<i>Hemigraphis reptans</i> (G.Forst.) T.Anderson ex Hemsl.	<i>Strobilanthes reptans</i> (G.Forst.) Moylan ex Y.F.Deng & J.R.I.Wood
Acanthaceae	<i>Ruellia elegans</i> Poir.	<i>Ruellia elegans</i> Poir.; Status changed from Native to QLD to Doubtfully naturalised in QLD
Amaranthaceae	<i>Amaranthus macrocarpus</i> Benth. var. <i>macrocarpus</i>	Not listed; Varieties no longer recognised in QLD
Amaranthaceae	<i>Amaranthus macrocarpus</i> var. <i>pallidus</i> Benth.	Not listed; Varieties no longer recognised in QLD
Apocynaceae	<i>Finlaysonia obovata</i> Wall.	Not listed; Not native to QLD
Araliaceae	Not listed	<i>Heptapleurum ellipticum</i> (Blume) Seem. var. <i>ellipticum</i> ; Newly recognised variety for QLD
Asteraceae	<i>Leucochrysum albicans</i> (A.Cunn.) Paul G.Wilson var. <i>albicans</i>	<i>Leucochrysum albicans</i> (A.Cunn.) Paul G.Wilson subsp. <i>albicans</i>
Asteraceae	<i>Rhaponticum australe</i> (Gaudich.) Sojak	<i>Leuzea australis</i> Gaudich.
Asteraceae	<i>Rhaponticum repens</i> (L.) Hidalgo	<i>Leuzea repens</i> (L.) D.J.N.Hind
Asteraceae	<i>Senecio amygdalifolius</i> F.Muell.	<i>Lordhowea amygdalifolia</i> (F.Muell.) Schmidt-Leb.

Asteraceae	Not listed	Thymophylla tenuiloba (DC.) Small var. <i>tenuiloba</i> ; Newly accepted naturalised taxon for QLD
Asteraceae	<i>Brachyscome iberidifolia</i> Benth.	Not listed; Not native to QLD
Asteraceae	<i>Olearia arguta</i> (R.Br.) Benth.	Not listed; Not native to QLD
Brassicaceae	<i>Brassica chinensis</i> L.	<i>Brassica rapa</i> L.
Brassicaceae	<i>Cuphonotus andraeanus</i> (F.Muell.) E.A.Shaw	<i>Lemphoria andraeana</i> (F.Muell.) Al-Shehbaz & Lysak
Brassicaceae	<i>Arabidella eremigena</i> (F.Muell.) E.A.Shaw	<i>Lemphoria eremigena</i> (F.Muell.) Al-Shehbaz & Lysak
Brassicaceae	<i>Cuphonotus humistratus</i> (F.Muell.) O.E.Schulz	<i>Lemphoria humistrata</i> (F.Muell.) Al-Shehbaz & Lysak
Brassicaceae	<i>Arabidella procumbens</i> (Tate) E.A.Shaw	<i>Lemphoria procumbens</i> (Tate) Schulz
Brassicaceae	Not listed	<i>Lemphoria queenslandica</i> Edginton, Al-Shehbaz & Lysak; Newly described species
Brassicaceae	<i>Microlepидium pilosulum</i> F.Muell.	Not listed; Not native to QLD
Brassicaceae	<i>Matthiola longipetala</i> (Vent.) DC.	Not listed; Not native to QLD
Brassicaceae	<i>Matthiola longipetala</i> subsp. <i>bicornis</i> (Sibth. & Sm.) P.W.Ball	Not listed; Not native to QLD
Byttneriaceae	<i>Commersonia prostrata</i> (Maiden & Betche) C.F.Wilkins & Whitlock	Not listed; Not native to QLD
Caryophyllaceae	<i>Cerastium fontanum</i> subsp. <i>vulgare</i> (Hartm.) Greuter & Burdet	<i>Cerastium vulgare</i> Hartm.; Status changed to Naturalised in QLD
Caryophyllaceae	<i>Gypsophila paniculata</i> L.	<i>Gypsophila australis</i> (Schltdl.) A.Gray
Caryophyllaceae	<i>Gypsophila vaccaria</i> (L.) Sm.	<i>Gypsophila vaccaria</i> (L.) Sm.; Status changed from Naturalised to Formerly naturalised in QLD
Caryophyllaceae	Not listed	<i>Stellaria pallida</i> (Dumort.) Crep.; Newly accepted naturalised species for QLD
Chenopodiaceae	Not listed	<i>Atriplex stipitata</i> subsp. <i>miscella</i> N.G.Walsh & Sluiter; Newly recognised subspecies for QLD
Cleomaceae	<i>Tarenaya hassleriana</i> (Chodat) Iltis	<i>Tarenaya houtteana</i> (Schltdl.) Soares Neto & Roalson
Combretaceae	<i>Lumnitzera littorea</i> (Jack) F.Voigt x <i>Lumnitzera racemosa</i> Willd.	<i>Lumnitzera x rosea</i> (Gaudich.) C. Presl
Commelinaceae	<i>Tapheocarpa calandrinioides</i> (F.Muell.) Conran	<i>Commelina calandrinioides</i> (F.Muell.) Zuntini & Frankel
Commelinaceae	<i>Turbina corymbosa</i> (L.) Raf.	<i>Ipomoea corymbosa</i> (L.) Roth
Cunoniaceae	<i>Bauera microphylla</i> D.Don - <i>Bauera rubioides</i> Andrews	<i>Bauera rubioides</i> Andrews
Cymodoceaceae	<i>Halodule tridentata</i> (Steinh.) Endl. ex Unger	<i>Halodule uninervis</i> (Forssk.) Asch.
Cyperaceae	<i>Fimbristylis macrantha</i> Boeckeler	<i>Abildgaardia macrantha</i> (Boeckeler) Goetgh.

Cyperaceae	<i>Fimbristylis odontocarpa</i> S.T.Blake	<i>Abildgaardia odontocarpa</i> (S.T.Blake) K.L.Wilson & J.J.Bruhl
Cyperaceae	<i>Fimbristylis oxystachya</i> F.Muell.	<i>Abildgaardia oxystachya</i> (F.Muell.) K.L.Wilson & J.J.Bruhl
Cyperaceae	<i>Fimbristylis pachyptera</i> S.T.Blake	<i>Abildgaardia pachyptera</i> (S.T.Blake) K.L.Wilson & J.J.Bruhl
Cyperaceae	<i>Fimbristylis squarrulosa</i> F.Muell.	<i>Abildgaardia schoenoides</i> R.Br.
Cyperaceae	<i>Scleria pygmaea</i> R.Br.	<i>Diplacrum pygmaeum</i> (R.Br.) Nees ex Boeckeler
Cyperaceae	<i>Abildgaardia vaginata</i> R.Br.	<i>Fimbristylis vaginata</i> (R.Br.) Domin
Ebenaceae	<i>Diospyros</i> sp. (Ham Hill B.Hyland 2941RFK)	<i>Diospyros venablesii</i> W.E.Cooper
Euphorbiaceae	Not listed	<i>Excoecaria agallocha</i> L. x <i>Excoecaria ovalis</i> Endl.; New recognised hybrid for QLD
Hanguanaceae	<i>Hanguana malayana</i> (Jack) Merr.	<i>Hanguana anthelminthica</i> (Blume ex Schult. & Schult.f.) Masam.
Juncaceae	<i>Juncus radula</i> Buchenau	<i>Juncus subsecundus</i> N.A.Wakef.
Lauraceae	<i>Endiandra floydii</i> B.Hyland	<i>Endiandra wongawallanensis</i> L.Weber
Lamiaceae	Not listed	<i>Coleus neochilus</i> (Schltr.) Codd; Newly accepted doubtfully naturalised species for QLD
Lamiaceae	<i>Prostanthera phylicifolia</i> F.Muell.	Not listed; Not native to QLD
Laxmanniaceae	<i>Corynotheca micrantha</i> (Lindl.) Druce	<i>Corynotheca divaricata</i> (R.J.F.Hend.) R.L.Barrett & T.Macfarlane
Laxmanniaceae	Not listed	<i>Lomandra altior</i> Jian Wang ter; Newly described species
Laxmanniaceae	Not listed	<i>Lomandra breviscapa</i> Jian Wang ter; Newly described species
Laxmanniaceae	Not listed	<i>Thysanotus admirabilis</i> Jian Wang ter; Newly described species
Leguminosae	<i>Acacia baileyana</i> F.Muell. x <i>Acacia decurrens</i> Willd.	<i>Acacia baileyana</i> F.Muell. x <i>Acacia decurrens</i> Willd.; Status changed to Naturalised in QLD
Leguminosae	<i>Acacia baileyana</i> F.Muell. x <i>Acacia leucoclada</i> Tindale	<i>Acacia baileyana</i> F.Muell. x <i>Acacia leucoclada</i> Tindale; Status changed to Naturalised in QLD
Leguminosae	Not listed	<i>Cassia brewsteri</i> subsp. ( <i>Gundiah</i> C.T.White 3491); Newly recognised taxon for QLD
Leguminosae	Not listed	<i>Cassia</i> sp. (Como P.Grimshaw+ G507); Newly recognised taxon for QLD
Leguminosae	Not listed	<i>Cassia</i> sp. (Lonesome Holding C.Eddie+ AQ611663); Newly recognised taxon for QLD
Leguminosae	Not listed	<i>Cassia</i> sp. (Marburg J.J.Halford+ JJH836); Newly recognised taxon for QLD
Leguminosae	Not listed	<i>Cassia</i> sp. (Woodwork Bay G.N.Batianoff 940543); Newly recognised taxon for QLD

		QLD
Leguminosae	Not listed	Cassia sp. (Yarrol Scrub P.I.Forster+ PIF30467); Newly recognised taxon for QLD
Leguminosae	<i>Aeschynomene brasiliiana</i> (Poir.) DC.	<i>Ctenodon brasilianus</i> (Poir.) D.B.O.S.Cardoso, P.L.R.Moraes & H.C.Lima
Leguminosae	<i>Aeschynomene falcata</i> (Poir.) DC.	<i>Ctenodon falcatus</i> (Poir.) D.B.O.S.Cardoso, P.L.R.Moraes & H.C.Lima
Leguminosae	<i>Aeschynomene paniculata</i> Willd. ex Vogel	<i>Ctenodon paniculatus</i> (Willd. ex Vogel) D.B.O.S.Cardoso, P.L.R.Moraes & H.C.Lima
Leguminosae	<i>Caesalpinia major</i> (Medik.) Dandy & Exell	<i>Guilandina major</i> (Medik.) Small
Leguminosae	<i>Caesalpinia robusta</i> (C.T.White) Pedley	<i>Guilandina robusta</i> (C.T.White) G.P.Lewis
Leguminosae	<i>Archidendropsis basaltica</i> (F.Muell.) I.C.Nielsen	<i>Heliodendron basalticum</i> (F.Muell.) Gill.K.Br. & Bayly
Leguminosae	<i>Archidendropsis thozetiana</i> (F.Muell.) I.C.Nielsen	<i>Heliodendron thozetianum</i> (F.Muell.) Gill.K.Br. & Bayly
Leguminosae	<i>Archidendropsis xanthoxylon</i> (C.T.White & W.D.Francis) I.C.Nielsen	<i>Heliodendron xanthoxylon</i> (C.T.White & W.D.Francis) Gill.K.Br. & Bayly
Leguminosae	<i>Indigofera helmsii</i> Peter G.Wilson	<i>Indigofera pratensis</i> F.Muell.
Leguminosae	Not listed	<i>Neptunia heliophila</i> A.R.Bean; Newly described species
Leguminosae	Not listed	<i>Neptunia insignis</i> A.R.Bean; Newly described species
Leguminosae	Not listed	<i>Neptunia proxima</i> A.R.Bean; Newly described species
Leguminosae	Not listed	<i>Neptunia scutata</i> A.R.Bean; Newly described species
Leguminosae	Not listed	<i>Neptunia tactilis</i> A.R.Bean; Newly described species
Leguminosae	Not listed	<i>Neptunia xanthonema</i> A.R.Bean; Newly described species
Malvaceae	<i>Abelmoschus moschatus</i> Medik. subsp. <i>moschatus</i>	<i>Abelmoschus moschatus</i> Medik. subsp. <i>moschatus</i> ; Status changed to Naturalised in QLD
Malvaceae	Not listed	<i>Hibiscus graniticus</i> Wannan; Formerly included with <i>Hibiscus meraukensis</i> Hochr.
Melastomataceae	<i>Tibouchina granulosa</i> (Desr.) Cogn.	<i>Pleroma granulosum</i> (Desr.) D.Don
Melastomataceae	<i>Tibouchina heteromalla</i> (D.Don) Cogn.	<i>Pleroma heteromallum</i> (D.Don) D.Don
Melastomataceae	<i>Tibouchina urvilleana</i> (DC.) Cogn.	<i>Pleroma urvilleanum</i> (DC.) P.J.F.Guim. & Michelang.
Melastomataceae	<i>Tibouchina clavata</i> (Pers.) Wurdack	Not listed; Not native to QLD
Myrtaceae	<i>Eucalyptus melanophloia</i> F.Muell. - <i>Eucalyptus whitei</i> Maiden & Blakely	<i>Eucalyptus melanophloia</i> F.Muell. x <i>Eucalyptus whitei</i> Maiden & Blakely
Orchidaceae	<i>Rhinerrhizopsis matutina</i> D.L.Jones & M.A.Clem.	<i>Bogoria matutina</i> (D.L.Jones & M.A.Clem.) M.A.Clem. & D.L.Jones

Passifloraceae	Not listed	Passiflora 'Amethyst'; New Doubtfully naturalised taxon for QLD
Phyllanthaceae	<i>Sauropolis anemoniflorus</i> J.T.Hunter & J.J.Bruhl	<i>Synostemon anemoniflorus</i> (J.T.Hunter & J.J.Bruhl) I.Telford & J.J.Bruhl
Plantaginaceae	Not listed	<i>Digitalis purpurea</i> L.; New Doubtfully naturalised species for QLD
Plantaginaceae	Not listed	<i>Maurandya barclayana</i> Lindl.; Newly accepted Naturalised species for QLD
Poaceae	<i>Cleistochloa</i> sp. (Duaringa K.B.Addison 42)	<i>Calyptochloa sphaerocarpa</i> E.J.Thomps.
Poaceae	Not listed	<i>Cryptachne columboola</i> E.J.Thomps.
Poaceae	<i>Dimorphochloa</i> sp. (Mt Cooper R.J.Cumming 18623)	<i>Cryptachne duaringa</i> E.J.Thomps.
Poaceae	<i>Dimorphochloa</i> sp. (Charters Towers E.J.Thompson+ CHA554)	<i>Cryptachne trinerva</i> E.J.Thomps.
Poaceae	<i>Panicum lachnophyllum</i> Benth.	<i>Stolonochnoa lachnophylla</i> (Benth.) E.J.Thomps.
Poaceae	<i>Panicum pygmaeum</i> R.Br.	<i>Stolonochnoa pygmaea</i> (R.Br.) E.J.Thomps.
Poaceae	<i>Urochloa advena</i> (Vickery) R.D.Webster	<i>Urochloa advena</i> (Vickery) R.D.Webster; Status changed from Native to QLD to Naturalised in QLD
Poaceae	<i>Halgnania erecta</i> Ewart & B.Rees	Not listed; Not native to QLD
Polygonaceae	<i>Rumex crispus</i> L. x <i>Rumex obtusifolius</i> L.	<i>Rumex obtusifolius</i> L.; Naturalised in QLD
Proteaceae	<i>Grevillea glossadenia</i> McGill.	<i>Grevillea glossadenia</i> McGill.; Status changed from Native to Native and naturalised in QLD
Resedaceae	<i>Reseda luteola</i> L.	<i>Reseda luteola</i> L.; Status changed from Doubtfully naturalised to Formerly naturalised in QLD
Rhamnaceae	<i>Rhamnus nipaensis</i> (Wall.) C.Lawson	<i>Rhamnus nipaensis</i> (Wall.) C.Lawson
Rhizophoraceae	<i>Rhizophora lamarckii</i> Montrouz.	<i>Rhizophora x lamarckii</i> Montrouz.
Rubiaceae	<i>Diodia teres</i> Walter	<i>Hexasepalum teres</i> (Walter) J.H.Kirkbr.
Rubiaceae	<i>Hydnophytum moseleyanum</i> Becc. var. <i>moseleyanum</i>	<i>Hydnophytum moseleyanum</i> Becc.
Rubiaceae	Not listed	<i>Pomax rupestris</i> F.Muell.; Newly recognised in QLD
Rutaceae	<i>Leionema elatius</i> subsp. <i>beckleri</i> (F.Muell.) Paul G.Wilson	<i>Leionema beckleri</i> (F.Muell.) I.Telford & J.J.Bruhl
Rutaceae	<i>Phebalium squamulosum</i> Vent. subsp. <i>squamulosum</i>	Not listed; Not native to QLD
Salicaceae	<i>Xylosma</i> sp. (Mt Lewis G.Sankowsky+ 1108)	<i>Xylosma craynii</i> W.E.Cooper
Solanaceae	<i>Browallia americana</i> L.	<i>Browallia americana</i> L.; Status changed from Naturalised to Doubtfully naturalised in QLD
Solanaceae	Not listed	<i>Nicotiana ingulba</i> J.M.Black; Newly recognised species for QLD

Solanaceae	<i>Nicotiana occidentalis</i> subsp. <i>obliqua</i> N.T.Burb.	<i>Nicotiana obliqua</i> (N.T.Burb.) M.W.Chase & Christenh.
Solanaceae	<i>Nicotiana benthamiana</i> Domin	<i>Nicotiana scopulorum</i> M.W.Chase & Christenh.
Solanaceae	<i>Nicotiana megalosiphon</i> subsp. <i>sessilifolia</i> P.Horton	<i>Nicotiana sessilifolia</i> (P.Horton) M.W.Chase & Christenh.
Solanaceae	<i>Solanum dimidiatum</i> Raf.	<i>Solanum dimidiatum</i> Raf.; Status changed from Naturalised to Formerly naturalised in QLD
Solanaceae	<i>Solanum sanitwongsei</i> Craib	Not listed, redetermined to <i>Solanum violaceum</i> ; Not native to QLD
Violaceae	<i>Viola hederacea</i> Labill. subsp. <i>hederacea</i>	<i>Viola hederacea</i> Labill ; Subspecies no longer recognised in QLD
Zingiberaceae	<i>Kaempferia</i> sp. (Murray Island M.Lawrie 5)	Not listed; Now <i>Kaempferia</i> sp.
Zygophyllaceae	<i>Roepera</i> sp. (Simpson Desert NP R.G.Atherton 8)	<i>Roepera aurantiaca</i> Lindl.
Zygophyllaceae	<i>Tribulopis homalococca</i> (Domin) R.M.Barker	<i>Tribulopis homalococca</i> var. <i>alifera</i> (Domin) R.M.Barker

## Bryophytes and Liverworts

Family	Botanical name 2021	Botanical name 2022
<b>Bryophytes</b>		
Calymperaceae	<i>Syrrhopodon trachyphyllus</i> Mont.	<i>Syrrhopodon semperi</i> Muell.Hal.
Fissidentaceae	Not listed	<i>Fissidens elegans</i> Brid.; New record for QLD
Pottiaceae	<i>Anoectangium aestivum</i> (Hedw.) Mitt.	<i>Anoectangium euchloron</i> (Schwaegr.) Mitt.
<b>Liverworts</b>		
Balantiopsidaceae	Not listed	<i>Acroscyphella iwatsukii</i> (N.Kitag.) N.Kitag. & Grolle; New record for QLD
Frullaniaceae	<i>Frullania subhampeana</i> E.A.Hodgs.	<i>Frullania monocera</i> var. <i>subhampeana</i> (E.A.Hodgs.) Hentschel et von Konrat
Geocalycaceae	Not listed	<i>Saccogynidium rigidulum</i> (Nees) Grolle; New record for QLD
Lepidoziaceae	Not listed	<i>Bazzania amblyphylla</i> Meagher; New record for QLD
Lepidoziaceae	Not listed	<i>Bazzania bilobata</i> N.Kitag. ; New record for QLD
Lepidoziaceae	Not listed	<i>Lepidozia hasskarliana</i> (Lindenb.) Stephani; New record for QLD

## Fungi and Lichens

Family	Botanical name 2021	Botanical name 2022
<b>Fungi</b>		
Agaricaceae	Lepiota sp. (Bunya Mountains NP A.M.Young Y1906)	Not listed; Now Lepiota sp.
Amanitaceae	Amanita sp. (Blackbutt A.M.Young Y1900)	Not listed; Now Amanita sp.
Amanitaceae	Amanita sp. (Bunya Mountains A.M.Young Y1358)	Not listed; Now Amanita sp.
Amanitaceae	Limacella sp. (Blackbutt A.M.Young 1689)	Not listed; Now Limacella sp.
Auriculariaceae	Not listed	Elmerina hispida (Imazeki) Y.C. Dai & L.W. Zhou; New record for QLD and Australia
Boletaceae	Xerocomus mcrubbi McNabb	Amoenoboletus mcrubbi (McNabb) G. Wu, E. Horak & Zhu L. Yang
Boletaceae	Austroboletus lacunosus (Kuntze) T.W.May & A.E.Wood	Austroboletus asper K. Syme, Bonito, T. Lebel, Fechner & Halling
Boletaceae	Not listed	Austroboletus dictyotus (Boedijn) Wolfe; New record for QLD and Australia
Boletaceae	Not listed	Boletus austroedulis Hlling & Fechner; Newly described species
Boletaceae	Boletus haedinus Berk. & Broome	Tylopilus haedinus (Berk. & Broome) Fechner
Boletaceae	Boletus sp. (Davies Creek Rd R.E.Halling+ 8917)	Veloboletus limbatus Fechner & Halling
Boletaceae	Boletus sp. (Davies Creek NP R.E.Halling+ 8907)	Not listed; Now Boletus sp.
Bondarzewiaceae	Not listed	Bondarzewia retipora (Cooke) M.D.Barrett; New record for QLD and Australia
Entolomataceae	Not listed	Entoloma eugenei Noordel. & O.V.Morozova; New record for QLD and Australia
Entolomataceae	Entoloma sp. (Lamington NP A.M.Young AQ603874)	Not listed; Now Entoloma sp.
Gastraceae	Not listed	Gastrum austrominimum J.C. Zamora; Newly described species
Hygrophoraceae	Hygrocybe sp. (Lamington NP A.M.Young+ LNP145)	Not listed; Now Hygrocybe sp.
Hygrophoropsidaceae	Not listed	Gyroporus australiensis Davoodian, Fechner & Halling; Newly described species
Hygrophoropsidaceae	Not listed	Gyroporus brunnescens Davoodian, Fechner & Halling; Newly described species
Hygrophoropsidaceae	Not listed	Gyroporus furvescens Davoodian & Halling; Newly described species
Hygrophoropsidaceae	Not listed	Gyroporus naranjus Davoodian, Bouger, Fechner & Halling; Newly described species
Hymenochaetaceae	Not listed	Hydnoporia tabacina (Sowerby) Spirin, Miettinen & K.H. Larss.; Newly described species
Hymenochaetaceae	Phellinus sp. (Lamington NP A.M.Young+ LNP423)	Not listed; Now Phellinus sp.

Inocybaceae	Not listed	Inocybe alienospora (Corner & E. Horak) Garrido; New record for QLD and Australia
Inocybaceae	Not listed	Inocybe alloumbrina Matheny & Bouger; New record for QLD
Inocybaceae	Not listed	Inocybe sejuncta Matheny, Bouger & M.D. Barrett; New record for QLD
Lyophyllaceae	Not listed	Australocybe olivacea T.J. Baroni, Fechner & L.J.J. van de Peppel; Newly described species
Marasmiaceae	Campanella sp. (Ravensbourne NP A. Young 1610)	Not listed; Now Campanella sp.
Marasmiaceae	Crinipellis sp. (Lamington NP A. Young+ 967)	Not listed; Now Crinipellis sp.
Marasmiaceae	Marasmius sp. (Bunya Mountains A.M. Young 1180)	Not listed; Now Marasmius sp.
Mycenaceae	Mycena sp. (Bithongabel A.M. Young+ LNP383)	Not listed; Now Mycena sp.
Mycenaceae	Mycena sp. (Bunya Mountains A.M. Young 1302)	Not listed; Now Mycena sp.
Omphalotaceae	Marasmiellus sp. (Dandabah A.M. Young Y1908)	Not listed; Now Marasmiellus sp.
Panaeolaceae	Not listed	Panaeolus cyanescens (Berk. & Broome) Sacc.; New record for QLD
Pluteaceae	Chamaeota sp. (Bunya Mountains NP A.M. Young AQ603470)	Not listed; Now Chamaeota sp.
Pluteaceae	Pluteus sp. (Bunya Mountains A.M. Young+ 965)	Not listed; Now Pluteus sp.
Pterulaceae	Not listed	Pterulicum fasciculare (Bres. & Pat.) Leal-Dutra, Dentinger & G.W. Griff.; Accepted name change
Russulaceae	Not listed	Lactifluus ochrogalactus (Hashiya) X.H. Wang.; New record for QLD
Russulaceae	Not listed	Multifurca australis Halling, T. Lebel & Buyck; Newly described species
Russulaceae	Not listed	Multifurca stenophylla (Berk.) T. Lebel, C.W. Dunk & T.W. May.; New record for QLD
Russulaceae	Not listed	Russula pumicoidea T. Lebel.; New record for QLD
Russulaceae	Macowanites sp. (Mt Baldy J. Garbaya 1015)	Not listed; Now Macowanites sp.
Russulaceae	Multifurca furcata (Coker) Buyck & V. Hofst.	Not listed; Specimens redetermined to Multifurca stenophylla (Berk.) T. Lebel, C.W. Dunk & T.W. May
Strophariaceae	Not listed	Agrocybe praecox (Pers.) Fayod.; New record for QLD
Strophariaceae	Galerina sp. (Blackbutt A.M. Young 802)	Not listed; Now Galerina sp.
Strophariaceae	Galerina sp. (Taromeo A.M. Young 924)	Not listed; Now Galerina sp.
Strophariaceae	Nematoloma sp. (Lamington NP J.E. Aberdeen 53/66)	Not listed; Now Nematoloma sp.
Tapinellaceae	Not listed	Pseudomerulius curtisii (Berk.) Redhead & Ginns.; New record for QLD

Tricholomataceae	Gymnopus sp. (Davies Creek NP R.E.Halling+ 8921)	Not listed; Now <i>Gymnopus</i> sp.
<b>Lichens</b>		
Caliciaceae	Not listed	<i>Amandinea brugierae</i> (Vain.) Marbach; New record for QLD and Australia
Caliciaceae	Not listed	<i>Amandinea manamiana</i> (Diederich) Elix & H.Mayrhofer; New record for QLD and Australia
Caliciaceae	Not listed	<i>Amandinea wagooroensis</i> Elix; Newly described species
Caliciaceae	Not listed	<i>Baculifera macromera</i> Elix & Kantvilas; Redetermined from <i>Buellia</i>
Caliciaceae	Not listed	<i>Buellia eldridgei</i> Elix; Newly described species
Caliciaceae	Not listed	<i>Buellia suttonensis</i> Elix & H.Mayrhofer; New record for QLD
Caliciaceae	Not listed	<i>Buellia tropica</i> Elix & H.Mayrhofer; Newly described species
Caliciaceae	Not listed	<i>Gassicurtia blencoensis</i> Elix; New record for QLD
Caliciaceae	Not listed	<i>Gassicurtia elizae</i> (Tuck.) Marbach; New record for QLD and Australia
Caliciaceae	Not listed	<i>Gassicurtia rufofuscescens</i> (Vain.) Marbach; New record for QLD and Australia
Caliciaceae	Not listed	<i>Orcularia elixii</i> Kalb & Giralt; New record for QLD
Catillariaceae	Not listed	<i>Catillaria nigroclavata</i> (Nyl.) J.Steiner; New record for QLD
Gomphillaceae	Not listed	<i>Gyalidea nambourensis</i> P.M.McCarthy; Newly described species
Graphidaceae	<i>Graphis aquilonia</i> (A.W.Archer) Staiger	<i>Allographa aquilonia</i> (A.W.Archer) Lücking & Kalb
Graphidaceae	<i>Graphis cleistoblephara</i> Nyl.	<i>Allographa cleistoblephara</i> (Nyl.) Lücking & Kalb
Graphidaceae	<i>Graphis daintreensis</i> (A.W.Archer) A.W.Archer	<i>Allographa daintreensis</i> (A.W.Archer) Lücking & Kalb
Graphidaceae	<i>Graphis dolichographa</i> Nyl.	<i>Allographa dolichographa</i> (Nyl.) Lücking & Kalb
Graphidaceae	<i>Graphis elixiana</i> A.W.Archer	<i>Allographa elixii</i> (A.W.Archer) Lücking & Kalb
Graphidaceae	<i>Graphis longula</i> Kremp.	<i>Allographa longula</i> (Kremp.) Lücking & Kalb
Graphidaceae	<i>Graphis lumbschii</i> (A.W.Archer) A.W.Archer	<i>Allographa lumbschii</i> (A.W.Archer) Lücking & Kalb
Graphidaceae	<i>Graphis marginata</i> Raddi	<i>Allographa marginata</i> (Raddi) Lücking & Kalb
Graphidaceae	<i>Graphis plagiocarpa</i> Fee	<i>Allographa plagiocarpa</i> (Fee) Lücking & Kalb
Graphidaceae	<i>Graphis rimulosa</i> (Mont.) Trevis.	<i>Allographa rimulosa</i> (Mont.) Lücking & Kalb
Graphidaceae	<i>Graphis rustica</i> Kremp.	<i>Allographa rustica</i> (Kremp.) Lücking & Kalb

Graphidaceae	<i>Graphis sayeri</i> Muell.Arg.	<i>Allographa sayeri</i> (Müll.Arg.) Lücking & Kalb
Graphidaceae	<i>Graphis seminuda</i> Muell.Arg.	<i>Allographa seminuda</i> (Müll.Arg.) Lücking & Kalb
Graphidaceae	<i>Graphis subcelata</i> A.W.Archer	<i>Allographa subcelata</i> (A.W.Archer) Lücking & Kalb
Graphidaceae	<i>Graphis subimmersa</i> (Fee) A.Massal.	<i>Allographa subimmersa</i> (Fée) Lücking & Kalb
Graphidaceae	<i>Graphis superans</i> Muell.Arg.	<i>Allographa superans</i> (Müll.Arg.) Lücking & Kalb
Graphidaceae	<i>Graphis vestitoides</i> (Fink) Staiger	<i>Allographa vestitoides</i> (Fink) Lücking & Kalb
Graphidaceae	<i>Graphis xanthospora</i> Muell.Arg.	<i>Allographa xanthospora</i> (Müll.Arg.) Lücking & Kalb
Pannariaceae	Not listed	<i>Gibbosporina acuminata</i> Elvebakken; New record for QLD and Australia
Pannariaceae	Not listed	<i>Gibbosporina elixii</i> Elvebakken, Hong & P.M.Jørg.; New record for QLD and Australia
Pannariaceae	Not listed	<i>Gibbosporina leptospora</i> Elvebakken; New record for QLD and Australia
Pannariaceae	Not listed	<i>Gibbosporina nitida</i> Elvebakken, Hong & P.M.Jørg.; New record for QLD and Australia
Pannariaceae	Not listed	<i>Gibbosporina thamnophora</i> Elvebakken & P.M.Jørg.; New record for QLD and Australia
Pannariaceae	Not listed	<i>Lepidocollema papillatum</i> (P.M.Jørg.) P.M.Jørg.; New record for QLD
Parmeliaceae	<i>Protoparmelia isidiata</i> Diederich, Aptroot & Serus.	<i>Neoprotoparmelia isidiata</i> (Diederich, Aptroot & Sérus.) Garima Singh, Lumbsch & I.Schmitt
Parmeliaceae	<i>Protoparmelia multifera</i> (Nyl.) Kantvilas, Papong & Lumbsch	<i>Neoprotoparmelia multifera</i> (Nyl.) Garima Singh, Lumbsch & I.Schmitt
Parmeliaceae	<i>Protoparmelia pulchra</i> Diederich, Aptroot & Serus.	<i>Neoprotoparmelia pulchra</i> (Diederich, Aptroot & Sérus.) Garima Singh, Lumbsch & I.Schmitt
Parmeliaceae	<i>Protoparmelia rogersii</i> Elix	<i>Neoprotoparmelia rogersii</i> (Elix) Sipman
Pertusariaceae	Not listed	<i>Lepra neotrichonica</i> (Elix & A.W.Archer) A.W.Archer & Elix; New record for QLD
Pertusariaceae	Not listed	<i>Lepra scaberula</i> (A.W.Archer) I.Schmitt, B.P.Hodk. & Lumbsch; New record for QLD
Physciaceae	Not listed	<i>Rinodina galapagoensis</i> Giralt & Bungartz; New record for QLD and Australia
Physciaceae	Not listed	<i>Rinodina gerhardii</i> H.Mayrhofer & Elix; Newly described species
Physciaceae	Not listed	<i>Rinodina heronensis</i> H.Mayrhofer & Elix; Newly described species
Physciaceae	Not listed	<i>Rinodina maculans</i> (Kremp.) Müll.Arg.; New record for QLD and Australia
Pilocarpaceae	Not listed	<i>Lasioloma corticola</i> P.M.McCarthy; Newly described species

Pilocarpaceae	Not listed	<i>Micarea queenslandica</i> P.M.McCarthy & Elix; Newly described species
Ramalinaceae	Not listed	<i>Megalaria australiensis</i> P.M.McCarthy & Elix; Newly described species
Ramalinaceae	Not listed	<i>Megalaria coralloidea</i> P.M.McCarthy & Elix; New record for QLD
Ramalinaceae	Not listed	<i>Megalaria stratosa</i> P.M.McCarthy & Elix; Newly described species