

A look at plant names -
the case of the Raspberry Jam Tree

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In 1994, I wrote a book called *The Smart Gardener's Guide to Common Names of Plants*. This book came about because of the Raspberry Jam Tree. I was doing some research on the 1845 epoch journey of Ludwig Leichhardt across northern Australia. We were planning an expedition into Arnhem Land with the aim of duplicating part of Leichhardt's lost botanical collection which he was forced to abandon when some of his pack animals were drowned in the Roper River.



Unlike Leichardt who travelled on horse-back, I had the luxury of a 4-wheel drive vehicle on my collecting expedition into Arnhem Land, NT.

In his diary, Leichhardt described the Raspberry Jam Tree and I needed to know what botanical species it was in order to target it as one of the plants to collect. It proved to be elusive as botanical reference books tend not to use common names and the common name that Leichhardt used could well have been one that he made up to describe a particular characteristic of the plant in question.

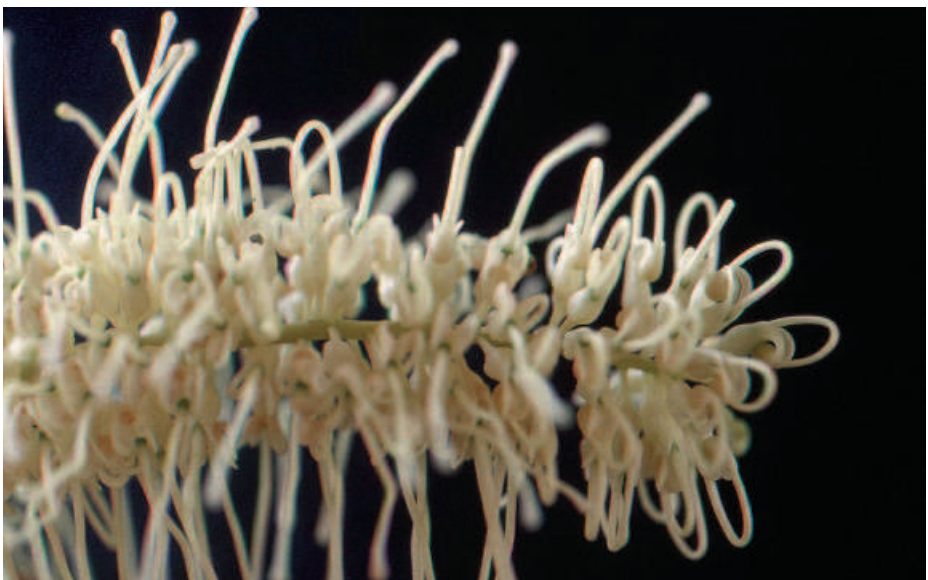
Some months later, after searching the reference books and making contact with various botanists around Australia, I was still no closer to the answer. The most viable option seemed to be a wattle, *Acacia acuminata*, called Raspberry Jam Wood, so named because of the fragrance emitted when the timber is cut. However, its region of natural occurrence is in Western Australia, not northern Australia where Leichhardt travelled, so that wasn't it.

Hence, the idea for the book arose. My aim was to provide a common name to correct scientific name cross reference, all in the one, portable book. A book which could be carried around and used by beginners, students, landscapers, professional horticulturists, land managers and botanists alike.

In the book, I follow the guidelines suggested by the Royal Botanic Gardens, Kew, and those adopted by the Royal Botanic Gardens in Melbourne. The book sold thousands of copies but is now out of print (maybe it's a collector's item!). As a part of the introduction I wrote the following information to help people understand plant names.



Collecting *Grevillea parallela* in a sheltered gully. A close-up of the flower is shown below.



Writing common names

There is no international convention governing the way that common names are written. So, common names are written in many different ways by different authors. However, it seems sensible to try to offer a standard formula based on current use of English and the guidelines set down by major botanical institutions.

Each part of the common name begins with a capital letter. For example,

Poor Man's Weather Glass.

However, if there are small words in a common name (such as the, of, me) then these words are written in lower case letters without hyphens. For example,

Kiss me Quick *or* Lily of the Valley

Given the modern tendency to eliminate punctuation marks, I suggest that hyphens be avoided unless the sense of the word is altered.

For example,

Cut Leaf Daisy *not* Cut-leaf Daisy

If there is a need to retain the hyphen between two words to avoid ambiguity then a lower case letter is used for the word following the hyphen. For example,

Lemon-scented Gum *not* Lemon Scented Gum

In the first case, scented refers to Lemon because of the hyphen. In the second case, the word Scented could refer to either Lemon or Gum.

When a common name is composed of a qualifying word, the shortened form is used, provided that the sense of the name remains unchanged. For example,

Smooth Bark Apple Gum *not* Smooth Barked Apple Gum

Where the literature has established a pattern of combining words then this convention is used. For example,

Bluebell *not* Blue Bell *or* Blue-bell

Coneflower *not* Cone Flower *or* Cone-flower

Importantly, do not place the common names in italics or in quotation marks, either single or double. You would never place your own name in quotes! Apart from just not being logical, quotation marks could create ambiguity with the single quotes that are used around cultivar names in the scientific name of a plant (see later).

The exception to the rule of using capital letters for common names occurs when you're using a name in the general sense, or you're covering a group of plants. In this case use a lower case letter. For example,

The red and green flowering kangaroo paws of Western Australia make splendid cut flowers

The oaks of Tasmania are not related to the oaks of England.

The case for using common names

Common names can be amusing, descriptive, short and easy to remember. They can describe a feature of a plant, a location where it is found or reflect a country of origin. For example,

Wait a While is a wattle so named because its sharp pointed leaves stop you from passing

Granny's Bonnets has flowers which look like old-fashioned hats which tie up under the chin

Peppermint Geranium describes the magnificent fragrance released when the leaves are crushed

Albany Daisy grows around Albany in Western Australia

Chinese Hibiscus reflects the plant's place of origin.

Common names can often depict the use of a plant, its history, the botanist or explorer who discovered it, or reflect some aspect of a country's culture. For example,

the Australian Grass Tree was also known in the past as Blackfellow's Spears because the aborigines used the strong flowering stem as the shaft of a spear

Jarrah is the Aboriginal word that we have adopted for a Western Australian species of eucalyptus

the many wattles known as Prickly Moses reflect our European past, a corruption of the word mimosa, a related European plant and the name still used in Europe for wattle.

So what's wrong with using common names only? At first sight, it appears much easier to call a plant a Lavender Grevillea rather than *Grevillea lavandulacea*.

The case for using scientific names

Even though common names are often colourful and descriptive they can also be misleading and ambiguous. Consider the Red Gum. Many people in Australia know the red gums which grow all along the water ways. It is the most widespread of all the eucalyptus trees in Australia. Its scientific name is *Eucalyptus camaldulensis*. However, there are other red gums which grow in Australia and what you think of as a red gum often depends on where you come from.

I did my horticultural training in New South Wales, so when I hear the term red gum, I think of red gum forests near the east coast. These red gums, so called red gums because of their amazing red trunks in the summer, are *Angophora costata*.

If you come from Western Australia you may think of red gums as the brilliant summer flowering *Eucalyptus ficifolia*, (which by the way, can also have white, pink or orange flowers).

Then there is another Flowering Red Gum, *Eucalyptus sideroxylon*, or the Narrow Leaf Red Gum, *Eucalyptus seeana*, and so on.

As you can see, people in different places call different trees by the same common name. The reverse is also true, that is, people call the same tree by different common names. For example, consider *Eucalyptus regnans*, the tallest flowering plant in the world. In Victoria, it is known as Mountain Ash. In Tasmania it is known as Swamp Gum, Stringy Gum and Tasmanian Oak. Each of these common names describes something different about the plant. The term Mountain Ash refers to the habitat of the plant and the superficial similarity of its timber to the European Ash (*Fraxinus*); the term Swamp Gum refers to its preference for wetter areas; Stringy Gum describes the distinctive hanging ribbons of bark on the trunk. It is marketed as Tasmanian Oak and used extensively in the furniture and construction business although it is no relation to the European Oak (*Quercus*). No wonder it is easy to be confused by all those local terms!

Go beyond Australian plants and imagine that a group of people want to discuss the purchase of some bulbs of Lily of the Valley. The French grower calls them Muguet, the Russian calls them Landysh, the German uses the term Maiblume and the English call them Lily of the Valley. Fortunately, the scientific (botanical Latin) name is *Convallaria majalis* - the international name. If all of the people concerned know and understand the scientific name then there is no confusion about what plant is required. If only the common names were used, everyone would have to know the name

in each of the four different languages before communication could proceed. By knowing the botanical name each grower can talk in a language which is world-wide and so make themselves understood.

It is important to appreciate that this is possible because each plant species has **one and only one scientific name**. So, to be precise you should use scientific names (= botanical Latin = botanical name).

The scientific system is well organised. However, as it turns out, it is poorly understood by many people, including nursery owners, landscapers, horticultural journalists and label manufacturers, some of whom are using scientific names which are over 80 years out of date. Further, common names are sometimes combined with scientific names. This lack of consistency leads to a general state of confusion.

Because common names are familiar and comfortable it is inevitable that people will continue to use them. So, as a plant user, it is necessary for you to be familiar with both systems - to be able to use the scientific names and the common names of plants. This will provide you with greater flexibility:

- your knowledge of scientific Latin enables you to talk with professionals in horticulture so that you can be precisely and clearly understood and
- your knowledge of common names allows you to communicate with a wider audience

Writing botanical names

Many people feel shy about using botanical names because they think it is difficult and because they think that they cannot pronounce the words. However, this reluctance stems mainly from a lack of familiarity. Like most things it is not difficult when you know the rules.

The writing of botanical names is governed by the:

- International Code of Botanical Nomenclature (*the Code*) and
- the International Code of Nomenclature for Cultivated Plants (*the Cultivated Code*).

These are precise, stable and internationally accepted systems for the naming of plants.

People involved in horticulture are most likely to come across species, cultivars and hybrids as the common categories of plants. The following discussion will help you to understand these categories and show you how the botanical names should be written.

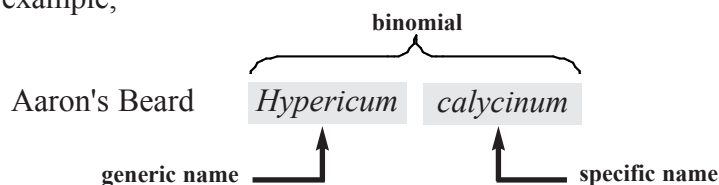
- **Species**

The basic unit of classification is the species. Each naturally occurring species is referred to by two words:

- the first word is the name of the genus (generic name) and
- the second word is the specific name (correctly termed the specific epithet).

The two names are always written together and called the binomial. **The binomial is the name of the species.**

For example,



The generic name always starts with a capital letter (upper case) whereas the specific name always starts with a lower case letter. The Latin in the botanical name should stand out in the text, usually by underlining or writing in italics. For example, *Eucalyptus globulus* or *Eucalyptus globulus*.

There can be subgroupings under species, namely subspecies, varieties and forms.

Subspecies (subsp.) is used when there is considerable variation in the species across a wide geographical range. For example,

Victorian Blue Gum *Eucalyptus globulus* subsp. *bicostata*

Varieties (var.) and **forms** (f.) can occur where there are minor differences within the species, such as larger flowers or flowers of a different colour. The use of these terms is being phased out. For example,

Fragrant Plantain Lily *Hosta plantaginea* var. *grandiflora*
Blue Atlas Cedar *Cedrus atlantica* f. *glauca*

- **Hybrids**

A hybrid is a cross between two species usually from the same genus (but occasionally between species from different genera). Hybridisation can occur naturally or artificially and many plants have arisen due to the work, time and effort put in by plant breeders. For example, orchids, azaleas, grevilleas and grains.

Seed derived from hybrids can be either sterile or, if viable, highly variable - this has implications for propagators. So, how do you know if a plant is a hybrid or not? You certainly can't tell by looking at it. Fortunately, the scientific naming system lets you know.

Cultivars of Australian native plants are registered by the Australian Cultivar Registration Authority (ACRA) in Canberra and information is published on the web and in the journal *Australian Plants*.

Hybrids between two different species are written in one of 3 ways.

a. the hybrid formula. For example,

Williams Camellia *Camellia japonica* x *C. saluenensis*
 hybrid sign

This way of writing hybrids tells you the most information. In this case, when both of the plants involved in the hybrid are known, the hybrid formula places the names alphabetically (*C. japonica* before *C. saluenensis*) or with the female parent first. It is permissible to abbreviate *Camellia* to *C.* in the second entry as there's no ambiguity.

b. hybrids with collective names. For example,

Glossy Abelia *Abelia* x *grandiflora*
 generic name hybrid sign new collective name

The name tells you the plant is a hybrid because it contains an x. There's no information about the species involved in the cross (sometimes the species are not known). A **collective name** (in this case *grandiflora*) is given to cover all the offspring of this particular hybrid.

c. the hybrid cultivar. For example,

Snow Apple *Malus* 'Fameuse'
 generic name cultivar name

The Snow Apple is probably a hybrid developed from a number of different species and again, the species involved are not always known. The generic name is followed by the cultivar name. The cultivar name is neither underlined nor written in italics and it is incorrect to place an x before the cultivar name.

Hybrids can occasionally occur between two species from different genera. When this happens the hybrid sign, x, is placed immediately in front of the new name created from the combined generic names of the two plants that have been hybridised. For example, the hybrid resulting from a cross between *Cupressus macrocarpa* and *Chamaecyparis nootkatensis* is:

Leyland Cypress x*Cupressocyparis* *leylandii*
 new generic name hybrid sign specific name

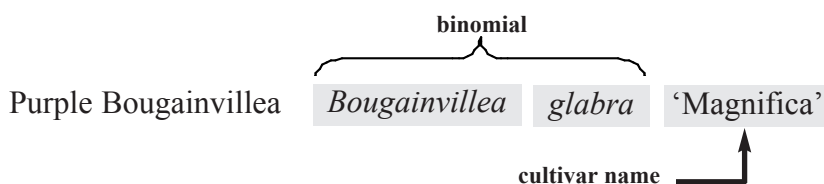
In common language, many people incorrectly use the word 'variety' when they really should be using the word 'cultivar'.

- **Cultivars (cultivated varieties)**

Many popular plants have been bred and selected for a particular quality of habit, flower or leaf. These plants are called cultivars (cultivated varieties) and would probably die out if not maintained in cultivation.

In 1959, botanists across the world agreed that cultivars should be named according to *the Cultivated Code*. Cultivars named before 1959 still bear a Latin name. Many of these Latin names are easily understood, for example: ‘Variegata’ means variegated, ‘Alba’ means white, ‘Rosea’ means pink, ‘Purpurea’ means purple. Cultivars named after 1959 bear a modern language name and all new cultivars must be registered with the appropriate registration authority or specialist society, either national or international.

The cultivar name follows the binomial. It starts with a capital (upper case) letter and is enclosed in single quotation marks. The cultivar name is not underlined nor written in italics. For example,



Where there is more than one name in the cultivar, each word starts with a capital letter. For example,

Chrysanthemum parthenium ‘Golden Ball’

Sometimes you will see the cultivar written as

Chrysanthemum parthenium cv. Golden Ball

This is permissible although not recommended.

Some groups of plants, such as camellias, dahlias, rhododendrons and roses have thousands of registered cultivars. The cultivar name is frequently the same as the common name. For example,

The Czar Camellia *Camellia japonica* ‘The Czar’

Sometimes you will find that the specific name is omitted. This occurs when a cultivar cannot be linked to a particular species with certainty. However, when known, the specific name should always be included for the sake of clarity.

Note that a cultivated variety is quite different from a botanical variety. Each term has a particular meaning, the word **cultivar** refers to a cultivated plant and the word **variety** to one of wild origin. So, be careful when using the word variety because it’s meaning is precise, referring to a wild plant variant.

Further information
can be found at the
PBR website -
[www.ipaustralia.gov.au/
pbr](http://www.ipaustralia.gov.au/pbr)

Trade Marks and promotional selling names

A trademark or promotional selling name is not the real name of a plant. You may buy these plants and have no idea of their real identity. It can be extremely difficult or impossible to find out information about the plant, such as growing conditions, cultural requirements or weed status, because you do not have the correct scientific name. Some nurseries are including the real name of the plant on the promotional label, but others are not; some not even including any botanical reference whatsoever!

Also, it is possible for the same plant to be trademarked under several different names as well as sold under its correct scientific name. It is not difficult to see where this sort of practise is heading.

The use of catchy selling names by nurseries or nursery industry groups who have not bothered or do not wish to find out the correct names is irresponsible and will only add to the already growing confusion surrounding plant cultivar names.

PBR and PVR

Plants registered with Plant Breeders Rights (PBR) or Plant Variety Rights (PVR) are protected by law.

The Plant Varieties Rights Act of 1987 allows for deliberately bred cultivars of plants to be registered. This establishes a name of equal status to Cultivar registration - the difference is that the breeder can receive royalties for up to 25 years. These plants are designated with the symbol PBR or PVR and must not be commercially propagated without the permission of the rights holder.

... and what about the Raspberry Jam Tree?

At the beginning, I told you of my search for the identity of the Raspberry Jam Tree named by Ludwig Leichhardt in his 1845 journey across northern Australia. After doing all my research needed to produce the book, *The Common Names of Plants*, was I any closer to finding out what it was? I'm afraid not! And so the Raspberry Jam Tree is proving to be a bit of a sticky problem (pun intended). If by chance you are able to shed some light on this vexing problem, I would appreciate some feedback.

Michèle Adler, October 2010