Keeping up to date with Plant Names in Databases

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PlantNetwork
The Plant Collections Network of Britain & Ireland

PLANT NAMES

Having plants in a collection correctly identified is one thing, making sure the names are up to date, or even spelled correctly, is another. Besides identifying the plant correctly, there are two reasons why a name may change:

TAXONOMIC. A species might be transferred into a different genus, or combined with one or more other previously segregated species, or divided into two or more new species. (*Luma apiculata* and *Amomyrtus luma* for example were previously both placed in the genus *Myrtus*; *Pernettya* species are now placed in the genus *Gaultheria*; *Sophora japonica* has recently been returned to *Styphnolobium japonicum;* and whether *Hebe* should be placed in *Veronica* has been debated for a 100 years)

NOMENCLATURAL. Names may have been incorrectly described, or older names, which have priority, may have been overlooked until recently. (*Quercus pedunculata* for example is a later name for *Quercus robur*). Some of these names have been conserved, that is the name is allowed to remain, even though it is strictly not correct. (for example, *Fittonia*, *Chrysanthemum* and *Erica carnea* are conserved against *Adelaster, Dendranthema* and *Erica herbaceae* respectively)

WHERE CAN I FIND THE CORRECT NAME ?

Looking a species name up in *Index Kewensis*, or on-line at http://www.ipni.org/ shows a name has been published, but does not necessarily tell you if the name is correct.
The Plant Finder (paper and on-line) is an excellent guide to the more usual cultivars and their correct spelling and designation. *The European Garden Flora* is a useful book for identifying Garden plant species or subspecies, and has a reasonably up-to-date synonymy listing, but has no information on cultivars. Monocotyledon synonyms are largely solved with Kew's World Checklist (http://apps.kew.org/wcsp/) although this is not yet complete for Dicotyledons.

A very useful resource is BGCI's 'Plant Search' facility. By submitting a list of all your accessions (see http://www.bgci.org/worldwide/plant_upload/ for information on how to do this), you will not only receive an email notification of any names that BGCI cannot find on IPNI, but you can also retrieve a list from the site with the IUCN red data categories for all your taxa. This provides a quick spell-check of your plant names dataset, and gives you an IUCN rating for your entire collections (http://www.plantnetwork.org/downloads/records2.pdf).

FAMILY PLACEMENTS

Deciding which family designations to use, and in which family to place a genus is also an actively changing field. For example some texts now place Taxodiaceae within a broader Cupressaceae, and Aceraceae and Hippocastanaceae within Sapindaceae, while a traditional Liliaceae family of 4500 species is divided into 22 families in references such as *Plant Finder*. The genus *Cyclamen* has recently been transferred to Myrsinaceae, while Plantaginaceae, has been found to be derived from within the family Scrophulariaceae, as have Globulariaceae, Callitrichaceae and Hippuridaceae which has led to the rather bizarre situation that much of the family has been proposed as better placed in the Plantaginaceae. Once transferred, this new big family can only be vaguely described morphologically. These changes, alas, are set to continue while cladistics methodology holds sway in much of the DNA-based taxonomies. Should you rush out and change all your labels? Rather than worrying about keeping up to date with these, it may be better to stick to a standard, i.e. Mabberley's *Plant Book*, or the RHS *Plant Finder*. When they change may be a good time for you to consider changing your labels.

HOW DO I KEEP UP WITH ALL THESE CHANGES ?

Firstly you should question whether you need to. Target 1 of the *Global Strategy for Plant Conservation* (GSPC) is "a widely accessible working list of known plant species". This is the ultimate goal of the Kew World Checklist series. In essence this will mean a complete synonymy will be available in a few years time, and then may be the time to bring your collections database up to date, rather than a piecemeal approach now, which can be very time consuming. Meanwhile simply ensuring the identity of your plants will be a far better use of your time.