

## Whats in a name?

As amateur botanists we have probably all been caught out by it: the change in a scientific name that we don't notice until some time after it comes into effect. A case in point for me was the (relatively) recent change in the name for the tree we know as Mackay cedar (but also sometimes called Acacia cedar and sometimes Red sirus). The new name is *Falcataria toona* and it was previously *Paraserianthes toona* and for a long time before that, as *Albizia toona*.

Some name changes are the result of the activities of '**splitters**' who separate a single species or genus into several taxa on the basis of perceived differences. Other name changes may be the result of '**lumpers**' who combine taxa on the basis that previous differences are believed to be insignificant, irrelevant or environmentally induced. While the collection of data may be quite rigorous and objective there is often still a degree of subjectivity in deciding how to group taxa.

In recent times, the evidence for re-designating a species is often derived from studies of the DNA. The DNA analysis provides evidence that is independent of other observed characters and is arguably more likely to accurately reflect the evolutionary history of the organism. [Although there is still room for misinterpretation].

The genus *Paraserianthes* was used to include trees and shrubs endemic to Australia, New Guinea, Indonesia and Solomon Islands. Within Australia there was only *P. toona* in coastal Queensland and a second species in SW Western Australia. The genus was long recognised as a sister genus to the genus *Acacia*.

What was not fully recognised until the DNA evidence began to come in was that *Paraserianthes* was more closely related to Australian *Acacia* than the Australian *Acacia* was to African and other *Acacia*. This was also true of a number of other genera and led to the current situation where the old genus *Acacia* (sl) was divided into the Australian *Acacia* (ss), and a number of non-Australian genera including *Vachellia*, *Senegalia* and *Acaciella*. In addition, the group that included the Mackay cedar was considered to be quite separate to other *Paraserianthes*. [In technical terms, the old genera were paraphyletic and not monophyletic]. This evidence resulted in the re-designation of Mackay cedar to *Falcataria toona*. At a finer level of detail, it was also revealed that *F. toona* shared ancestors with the New Guinea and Solomon Island species but the Indonesian species was probably more closely related to (and derived from) the WA species (known locally as Cape Leeuwin wattle or simply Cape wattle).

Changing scientific names sometimes gives rise to the lament 'Why can't we just use common names –they don't change?' Rather than respond to the question, I will simply note that in addition to the above examples, *Acacia elata* has the common name Cedar wattle and that the plant used by British settlers in the original 'wattle and daub' buildings was probably *Callicoma serratifolia* which was then called Black wattle! Finally of course we know that there are all sorts of other cedars (red, white, wooly, pencil, Lebanon etc) and other siruses (red, white, Indian) spread across a range of disparate taxa and geographic locations.

Contributed by Bob Newby