A rose by any other name…

One of the core functions of Parks and Wildlife's Western Australian Herbarium is documenting and describing the State's native and naturalised flora. This involves field work to collect plants and map their distributions, followed by their identification, a process that includes detailed examination of the plant's structures, and sometimes genetic 'codes', as well as extensive literature surveys and comparison with existing specimens. In many cases the end result is the recognition of a new species, at which point the formal process of naming the species is instigated (see also 'DNA: Unlocking secrets' on page 36). This is not always simple. Unlike naming a newborn child, or even a pet, there are rules that have to be followed in the naming of any new species of plant or animal. For the plants, these are compiled in a book with the rather cumbersome title of the 'International Code of Nomenclature for algae, fungi, and plants', thankfully most often known by the abbreviation 'ICN' or 'The Code'. In this tome, which is revised every six years, the correct procedures for the naming of new species (or any other taxonomic level) are laid out. Many of these are logical, for example you cannot repeat a name that has been used previously, and each species can have only one valid name (in almost all cases the first name used). If a name is repeated inadvertently, or a previously named species given a new name, the new name is regarded as 'illegitimate' and cannot be used.

So the first step is to ascertain which names have been used previously. In the past this would have meant ploughing through reference books and historical literature, but thankfully web-based resources such as Parks and Wildlife's 'FloraBase', and the Australian and International Plant Name Indices (APNI and IPNI) can now provide much of the information via a simple search. Once this is completed, the creative side comes to the fore; actually choosing a name. Ideally the name should reflect a feature of the plant, so that anyone who sees the name might get an indication of the plant's appearance. As most names are rendered in Latin or Greek, knowledge of those languages is also a necessity. For example, the species name (or 'epithet') of the black-eyed susan *Tetratheca hirsuta* was coined in reference to the coarse hairs on its stems, leaves and flowering stalks, but if you didn't know that 'hirsute' was Latin for 'hairy' or 'shaggy', the name would have no meaning. Species can also be named for the location where they are found, or in honour of the people that collected the specimens, or made a significant contribution to the study of botany (or a related field). Again, knowledge of Latin comes in handy. To most Australians, the name 'australis' would suggest a species found in Australia, when in fact it is derived from the Latin word for 'southern'. Both the species and the country names have the same origin (Australia from 'Terra Australis'). For a species to be named for its Australian location, the epithet would be 'australiensis'.

Above The black-eyed susan (*Tetratheca hirsuta*) was named for its hairy stems and leaves.
Photo – Ryonen Butcher/Parks and Wildlife

Our work, and that of other herbarium scientists, regularly uncovers new species and genera that require naming, and doing so in honour of a deserving colleague is certainly a pleasure. *Cochlospermum macnamarae* – a multi-stemmed shrub that grows to two metres high and three metres wide in the Pilbara – was so named to honour Keiran McNamara, the late Director General of the former departments of Conservation and Land Management and Environment and Conservation. Under the ICN, 'Mc' surnames are spelled in full as 'Mac' when Latinised and surnames ending with –a are ended in –ae. Naming this species in his honour recognised his strong support of science, including taxonomic research at the WA Herbarium and targeted research of potential species of conservation concern.