Western Australia is rich in biodiversity. For tourists, this means there are fields of wildflowers and other natural wonders to enjoy. For locals, this means you don't need to go far to be immersed in nature. And for taxonomists, it means there are many, many new species to discover, name and document.

Taxonomists — the scientists who name and classify species — come across new species in many different ways. Sometimes they are discovered through careful and painstaking study of the dried, pickled or preserved scientific specimens in the Western Australian Herbarium or Western Australian Museum. Sometimes poring over gene sequences reveals new species. Sometimes specimens are brought into the Herbarium or Museum by members of the public, environmental consultants or colleagues and are recognised as new species, either immediately or after careful comparison with known species.

And sometimes, new species are discovered when least expected.

So it was, with the discovery of a new and unusual species of *Hibbertia* (or guinea flower) found at Easter 2018 while I was on an extended camping holiday with my wife in the remote Plumridge Lakes Nature Reserve.

Plumridge Lakes is spectacular — a large and varied nature reserve of woodlands, lake systems and dunes on the western edge of the Great Victoria Desert. Plumridge Lakes is also well beyond Western Australia's south-west, where almost all of our species of *Hibbertia* are found.

So when my wife and I drove past a large, prickly-leaved, flowering *Hibbertia* at the base of a dune at the western edge of the reserve, I was immediately curious. Without even needing to open the car door, I took one look, and realised that here was another likely new species.

Of course, careful work ensued back in the Herbarium to make sure that this was not perhaps a first Western Australian record of a known South Australian species, or an unusual range extension of a species I was unfamiliar with. Careful comparisons showed that my first guess — that this was a brand new species — was correct. It also had some quite unusual features, meaning that it's not clear what it's most closely related to.

Guinea flower *(Hibbertia proberae)*

Above A chance encounter led to the discovery of a new species of *Hibbertia*. *Photo – Kevin Thiele*

Even better, a few more specimens turned up in the Herbarium's collection from the same general region, collected decades earlier and filed as unidentified. A picture began to emerge of a possibly rare species scattered in the unusual habitat of the Great Victoria Desert. A few weeks later the scientific paper describing the new species was ready.

With this paper, one more species was added to our State's flora, and one more piece to the jigsaw puzzle of our biodiversity. *Hibbertia* is a significant plant genus. It's currently the fifth largest genus in Australia (and is probably about to overtake the orchid genus *Caladenia* to become the fourth largest) and is amongst the most species-rich genera in Western Australia. New species are being discovered all the time, and not only in the Great Victoria Desert. One currently unnamed species is common in Kings Park and other suburban bushlands, while others are common amongst the spring wildflowers on the Darling Scarp. And many are rare and threatened, making their discovery and recognition doubly important.

One of the joys of taxonomy is deciding what name to use for a new species, whether to use a Latin or Greek word describing some feature of the plant, whether to name it after the location in which it grows, or perhaps to honour a worthy colleague or other significant figure. In this case I decided to honour Suzanne Prober, my ecologist wife and companion on many field trips and holidays alike, who also happens to be a great lover of the desert landscapes that the new species calls home. So it was that the new species *Hibbertia proberae* was added to Western Australia's rich inventory of biodiversity.

As a postscript, luckily, Suzanne has forgiven me for naming a very prickly shrub after her!