

There are more than 28,750 triggerplant (*Stylidium*) specimens housed in Australian herbaria, each providing a verifiable record of a particular species in a particular place at a particular time. These specimens are at the heart of research efforts to compile a detailed account of the more than 300 species found across Australia. Recent travel to a number of herbaria to examine and accurately catalogue their collections has led to a suite of novel discoveries, one of which turned out to have been named and described 165 years ago.

In 2019, an unusual specimen from Annaburroo Billabong, which lies between Darwin and Kakadu National Park, was unearthed at the Northern Territory Herbarium. Collected in 1984 by freshwater plant specialist Helen Aston, the plants were notable for their delicate growth form, stalked flowers, and white corolla with a purplish-brown spot on each lobe. This collection didn't match any others in the herbarium and was therefore flagged as a potential undescribed species. Similar plants were subsequently photographed at Charnley River-Artesian Range Wildlife Sanctuary in Western Australia's Kimberley region and posted on iNaturalist by WA Herbarium Research Associate Bevan Buirchell before being collected from the same area during the 2022 Wilinggin-West Kimberley Bush Blitz expedition. They appeared to match the mystery species at Annaburroo, although additional observations were needed to be sure.

Information was shared with Kym Brennan, a scientist with considerable expertise on the Territory's flora who relishes the thrill of the chase. He was dogged in his efforts to relocate plants at Annaburroo, searching through swampy habitat in searing heat for several hours before eventually finding the plants, which were restricted in their distribution and observed to be at risk from feral pig activity. His pressed specimens and photographs helped to establish that the Annaburroo and Charnley River plants were indeed identical.



Spotted triggerplant (*Stylidium tenerrimum*)

Meanwhile, a similarly determined hunt through historical botanical literature was occurring to ensure the species hadn't already been scientifically named and described. This included an assessment of species named by Ferdinand von Mueller in 1859 following his travels across northern Australia on an expedition led by Augustus Gregory. His Latin description of *Stylidium tenerrimum* leapt off the page—'corolla alba, lobis omnibus macula sanguinea signatus' [corolla white, the lobes all marked blood-red]. The corresponding specimen, collected in 1855 between Macadam Range and Providence Hill, was examined online via the Global Plants image database, revealing our mystery species as one and the same. Moreover, in a classic case of mistaken identity, the specimens filed under *S. tenerrimum* at the Northern Territory Herbarium were found to belong to a different species.

Additional collections of *S. tenerrimum* from Kakadu National

Above Spotted triggerplant (*Stylidium tenerrimum*).

Photo – Kym Brennan

Park and near the Daly River have since been found at the John T. Waterhouse Herbarium (University of New South Wales) and Australian National Herbarium although the species remains poorly known, especially in Western Australia. One can't help but wonder whether more material will come to light as the myriad of Australian collections are slowly but surely examined and verified.

Revised information on *S. tenerrimum* will soon be published in *Nuytsia*, the journal of the Western Australian Herbarium, as part of a major taxonomic update on the triggerplants of northern Australia. This research, which has been supported by funding from the Australian Biological Resources Study, will include the description of a raft of novel species, many of them poorly known.