

South African endemic mountain plant gives itself up after 147-year absence

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The first ever photographs of the Critically Endangered 'Mrs. Barber's Beauty.' Complete and open inflorescences of the rediscovered endemic *Lotononis harveyi*. Credit: Dr. Ralph Clark

South Africa's mountains are essential to the economic well-being of the country, providing many goods and services essential for social and economic prosperity. However, the biodiversity value of these mountains is still poorly understood. This is exemplified by the large number of plant species still only known from one or two collections made well over a century ago.

The Great Escarpment Biodiversity Research Programme, led by Prof. Nigel Barker, University of Pretoria, has been systematically documenting plant diversity and endemism along much of the Great Escarpment - southern Africa's principal mountain system.

"This 'un-sexy' foot-slogging research has yielded a number of valuable discoveries and rediscoveries, highlighting the biodiversity value of these mountains," points lead author Dr Ralph Clark, Rhodes University, South Africa.

One of these rediscoveries is a plant last seen only by one more person: Mrs Elizabeth Barber, one of South Africa's finest women botanists of the 19th century. Mrs Barber has been a regular correspondent with Charles Darwin and has provided material of South African plants to numerous institutions in Europe.

"Her discovery - *Lotononis harveyi*, also known under the common name 'Mrs Barber's Beauty' in her honour, was published in 1862, but unfortunately, as her specimen did not include a date, we do not know the actual year in which she discovered it," he explains. "What we do

know, is that it mysteriously disappeared for at least 147 years, despite attempts to relocate it."



Montane grassland habitat, with *Lotononis harveyi* in the middle foreground.
Credit: Dr. Ralph Clark

In 2009, Dr Ralph Clark undertook an extensive collecting trip to the Great Winterberg, where he accidentally stumbled across a flowering specimen of 'Mrs Barber's Beauty'. It was only in 2014, however, that the plant was properly recognised for what it was, and a second trip was quickly planned.

The results of the second trip included the first photographs and ecological records of this apparently scarce species. Dr Clark's results have been published in the open access journal *PhytoKeys*.

"There are currently only six known individuals of this species. The main limiting factors appear to be fire and grazing, the plants only occurring where these two prominent ecological actors have been excluded for some time," notes Dr Clark.

"However, with much of these mountains still poorly explored by biodiversity scientists, it is possible that additional individuals will come to light. For now the species will be regarded as Critically Endangered."

More information: Vincent Ralph Clark et al. The rediscovery of the Great Winterberg endemic *Lotononis harveyi* B.–E.van Wyk after 147 years, and notes on the poorly known Amathole endemic *Macowania revoluta* Oliv. (southern Great Escarpment, South Africa), *PhytoKeys* (2016). [DOI: 10.3897/phytokeys.62.8348](https://doi.org/10.3897/phytokeys.62.8348)

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