



The mystery of the missing *Macowania* – solved!

The flowers and foliage of the Amathole Macowania (*M. revoluta*). Photo by Joanne Bentley.

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Macowania revoluta is endemic to the beautiful Amathole Mountains in the Eastern Cape province. First collected by Peter MacOwan in the eastern Amatholes in 1868, the species was described by Joseph Hooker in *Icones Plantarum* (published from 1867 to 1871). This mostly southern African genus, with *M. revoluta* being the 'type', was taxonomically revised in 1927 by Christo Smith. We suggest the common name of Amathole Macowania for this species.

Surprisingly, very few collections of the Amathole Macowania exist, to the point that the *Red List of South African Plants* indicates that this species had not been re-collected since before 1949. For 60 years it was one of a number of 'lost' endemics – something for which the Eastern Cape mountains have become rather notorious. This is despite the 14 earlier collections listed by Christo Smith, with localities including the Katberg, Hogsback, Wolf River Plateau and Mount Pirie.

The first concrete records of this species' continued existence were a collection in July 2010 – by Joanne Bentley and Nicola Bergh – in the vicinity of Keiskammahoek, followed by a second specimen in October 2010 – by Tony Dold – near the famous Madonna and Child Waterfall in Hogsback. Following this, in December 2014, the species was found by Ralph Clark to be abundant in the central Amathole

Mountains along the Amatola Hiking Trail. In April 2015 another plant was recorded from Isidenge State Forest on the road to Evelyn Hut (one of the Amatola Hiking Trail huts) by SANBI's Red List coordinator for the Eastern Cape, Vathiswa Zikishe.

It is incredible that this locally abundant and beautiful plant has escaped detection for so long, especially as it is often the dominant species in Afromontane fynbos communities. It typically grows in association with various Heaths (*Erica* species), Bracken Fern (*Pteridium aquilinum*), Heart-leaved Storkbill (*Pelargonium cordifolium*), Blue Butterfly Bush (*Psoralea glabra*), Common Wild Bramble (*Rubus rigidus*) and Mountain Cypress (*Widdringtonia nodiflora*). As the Amathole Macowania generally prefers wet areas, ecologically it appears to play an important local role in mountain seeps, drainage lines and wetland communities.

It is also found along dolerite cliff-tops, and on the margins of indigenous forests, pine plantations and alien thickets. It may therefore be a local 'keystone' species, helping in the delivery of fresh water and curbing soil erosion.

So, now that we know that it is not that rare, what is the appearance of the Amathole Macowania? Typically an erect, candelabra-like shrub – half a metre to three metres tall when mature and often as broad as it is tall – it is lax and weedy when small, showing strong ruderal tendencies. The leaves are sticky, glandular and sweetly aromatic, with revolute (rolled under) leaf margins, hence the derivation of the specific name 'revoluta'. The typical, radiate daisy inflorescence is yellow.

Confusion with other species of the genus *Macowania* is unlikely. The closest known population of another species, Mamotasi



The edges of the involucre bracts of the Amathole Macowania (*M. revoluta*) are distinctly dark-brown. Photo by Joanne Bentley.

(*M. pulvinaris*; suggested common name: Cushion Macowania) is found 115 km to the north on the Andriesberg near Queenstown. Recent phylogenetic research on *Macowania* and related genera, by the University of Cape Town and the Compton Herbarium (Kirstenbosch), suggests that the dissimilar-looking *Arrowsmithia stypheloides* (suggested common name: Sharp-leaved Macowania) – also a local endemic to the Great Winterberg-Amatholes – is actually better placed under *Macowania*. The Sharp-leaved and Amathole Macowianas, particularly the latter, potentially make good horticultural subjects.

The Amathole Macowania is currently red listed as Data Deficient. This means that, until now, there have been limited data to determine how threatened it is. Based on the recent discoveries, we have recommended that the Red Data status of 'Rare' be allocated, given its local abundance and ruderal tendencies but countered by its: limited distribution; potential vulnerability to alien invasive plants – such as Silver and Black Wattles (*Acacia dealbata* and *A. mearnsii*), Blackwood (*A. melanoxylon*), and Patula Pine (*Pinus patula*); and, the as-yet-unknown impacts of climate change on local montane endemics.

The 'rediscovery' of this poorly known but locally abundant plant shows once again that fieldwork is critical to gather conservation data for our rich South African flora, especially in our poorly studied mountains. So we encourage you to turn off that tablet and do a five-day hike!

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FURTHER READING

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