



**TOP RIGHT:** The lowland form of *Massonia jasminiflora* found near King Williams Town in the Eastern Cape.

**FROM TOP TO BOTTOM:**

- The high altitude form of *Massonia jasminiflora* from the Eastern Cape. It flowers in mid-winter.
- The only summer flowering *Massonia* has yet to be named and occurs in gravel beds at altitudes above 2 500m in the Drakensberg.
- *Massonia pustulata* photographed near Agulhas in June.



# & Massonias Daubenyas

These small winter- and spring-flowering bulbs with two prostrate leaves and pincushion-like flowers have a restricted distribution and are a challenge to locate, writes **Cameron McMaster**.

**T**HE INFINITE VARIETY AND beauty of South African bulbous plants should constantly inspire landowners and farmers to explore their land and record and document what they discover. Having the responsibility for rare or special species should encourage and motivate those who are privileged enough to find them to apply effective and sustainable management practices, to preserve the rich biodiversity on their land.

It's not only the large, spectacular or showy species that should receive attention. There are many small and insignificant plants of exquisite beauty that are seldom seen and yet might well be found if the search is diligent enough.

The group that we deal with this week falls into that category – massonias and daubenyas, two related groups in the family Hyacinthaceae.

They are small perennial deciduous bulbous plants with two prostrate leathery or slightly succulent leaves. The flowers are born in dense heads grouped

within bracts. The seeds are formed in capsules which elongate as they ripen, and eventually dry as a detachable papery seed head which is perfectly adapted for wind dispersal, as the shiny black seeds scatter as it rolls along the ground.

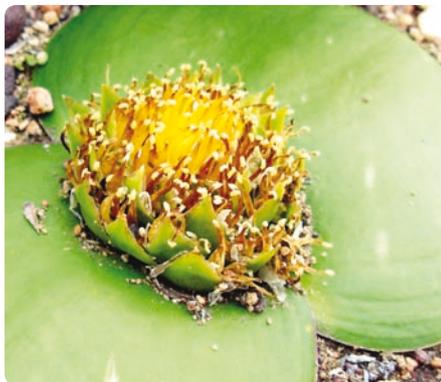
**Hidden wonders**

The genus *Massonia* consists of six species, named after that intrepid plant collector and explorer Francis Masson, who was sent to the Cape by Kew Gardens in London to collect plants. He undertook three extensive journeys between 1772 and 1775, covering large tracts of the interior including the Hantam, Roggeveld, western Karoo, Overberg and the Langkloof, and as far east as present-day Port Elizabeth. He added vastly to the knowledge of Cape plants at that time and discovered four species of *Massonia*, among many others.

It must have been wonderful for him to see the countryside in its still-pristine state, virtually untouched by human activity. I believe I fully understand the



LEFT: *Massonia depressa* on the Rooihogte Pass between Montagu and Touws River.



TOP FROM LEFT TO RIGHT:

- *Daubenya marginata* photographed at Bo-Visrivier near Middelpos in the Roggeveld in the Northern Cape.
- The yellow form of *Daubenya aurea*, photographed in the Indigenous Bulb Grower's Association reserve near Middelpos.
- The more common red form of *Daubenya aurea*, photographed at Bo-Visrivier, also near Middelpos.



- Some *Massonia* species are named hedgehog plants because of their resemblance to hedgehogs.
- A special reserve has been set up to preserve the yellow *Daubenya aurea*.
- Some species are less easy to identify.

thrill that Francis Masson must have felt on discovering a *Massonia*. My first encounter was on the summit of Mount Kubusie in the Amathola mountains, many years ago, when I came across *Massonia jasminiflora* growing in cracks between the dolerite boulders and slabs.

Despite being confined to the summer rainfall region, this small species with its pustulate leaves maintains a winter flowering and growth pattern, and is dormant in summer. Its flowers have a strong scent, like jasmine, hence its name. I found it to be widely distributed in rocky outcrops at higher altitudes in the Eastern Cape, but being so small and hidden it's always a challenge to find. It's a variable species and similar plants occur at lower altitudes near King Williams Town and in the drier regions such as the Free State.

Massonias are commonly named hedgehog plants because of the resemblance of some species' spiky flowers to small hedgehogs. Most are native to the Western Cape winter rainfall region and occur from sandy coastal habitats (*Massonia pustulata*) to clay slopes and plains in the southern Cape, Overberg and Karoo to Namaqualand (*M. depressa*

and *M. echinata*). They flower in winter and early spring with flowers that range in colour from white to yellow. Some secrete copious amounts of nectar, attracting rodents which sip it, gather pollen on their noses and thus act as pollinators.

There is only one species that flowers in mid-summer. It's similar in appearance to *Massonia jasminiflora*, but occurs at altitudes above 2 500m in the Drakensberg and flowers in December. It's illustrated in Elsa Pooley's *Field Guide to the Wild Flowers of KwaZulu-Natal* where it is, I believe, incorrectly named *Massonia echinata*. The latter is a winter-flowering species which occurs further west in the more arid regions of the Karoo and the Western Cape. It's possible that the summer-flowering Drakensberg species could be an as yet undescribed species.

**A similar pattern**

The genus *Daubenya* was named in honour of Dr Charles Daubenya (1795-1867), a professor of botany at Oxford. It's confined to the winter rainfall region of the Western and Northern Cape and consists of only eight species, most of which have a very restricted distribution confined to doleritic and clay soils in the Knersvlakte, Bokkeveld and Roggeveld escarpments. Only one species, *Daubenya zeyheri*, occurs in the calcareous coastal sands near Paternoster.

While conforming basically to the same structure, the flowers of the different species vary considerably in shape and colour as a result of adaptations to different pollination regimes. Some, such as *Daubenya aurea*, have flowers that are

flamboyant in the extreme as they flower in arid and sparsely vegetated habitats in the western Karoo near Middelpos.

The flowers have long, enlarged outer petals imitating the ray florets of daisies and so attract monkey beetle pollinators, which love daisies. There are two colour forms – bright yellow, from which the original was named, and the more common, brilliant, pillarbox-red. With the consent of the landowner concerned, the Indigenous Bulb Growers Association of SA has established and fenced a special reserve for the rare yellow form near Middelpos, and members conduct annual pilgrimages to see it.

Both massonias and daubenyas are easily grown from seed and make excellent pot-plant subjects. Most species, particularly

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those from high altitudes such as the Drakensberg and the Roggeveld, are frost hardy and can be grown in winter in Europe and the UK. *Daubenya aurea* has been grown in England since 1835.

Seeds and bulbs of some species can be obtained at specialist indigenous seed suppliers and nurseries.

• For more information consult *The Colour Encyclopedia of Cape Bulbs* by Manning, Goldblatt and Snijman, published by Timber Press.

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