### wildflower conservation





ABOVE: Zantedeschia albomaculata, the spotted-leafed arum, occurs in rocky outcrops throughout the wetter parts of the summer rainfall region.

LEFT: The Helen 'O Connor is popular arum in the horticultural trade. It is a natural variety of Zantedeschia albomaculata.

# Zantedeschia - the southern African arums

A challenge to landowners in Limpopo and Mpumalanga is to discover populations of two rare yellow arums, so far only known from Sekhukhuneland in the rainshadow of the Drakensberg, writes Cameron McMaster



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AYBE THE WHITE ARUM, SO prolific in vleis and wetlands, is so commonplace we hardly notice it. It has a host of common names, some quite derogatory, like pig lily (Varkoor), an allusion to the shape of the flower resembling a pig's ear, or perhaps to the fact that although poisonous to humans the corm is relished by porcupines (Ystervarke). However, when

# 'Arum flowers are minute and crowded onto a central spike.'

commercially cultivated on a large scale for the cut flower industry, they're called calla lilies. Check the décor in some American soapies and you'll often see South African arums used in flower arrangements.

Arum flowers are minute and crowded onto a central, usually yellow spike surrounded by a large, white to pink or yellow funnel-shaped spathe which most people regard as the petal. After pollination

by flying beetles the tiny flowers develop into firm green berries tightly clumped in a composite fruit head. When ripe the berries change colour and become softer, eventually disintegrating and releasing seed.

The common white arum bears the Latin name Zantedeschia aethiopica, a species name inferring the plant hails from Africa. It's one of eight different species in the small southern African genus Zantedeschia, which is included in the large and predominantly tropical family Araceae. The genus was named after Francesco Zantedeschi an Italian physician, botanist and writer.

#### Defining the species

Zantedeschia aethiopica is a common plant in ditches and damp place in the Western Cape, but its found in massed displays in damp habitats throughout the country. It was introduced into Europe as early as 1644 and because of its elegance and longevity was prized as a cut flower. The plant remains evergreen if kept damp, even tolerating waterlogged soil and shade, making it a

suitable easy-care garden subject. A pale pink form has been selected and its name registered as marshmallow. A very large form with green-streaked flowers, known as green goddess, is a popular garden subject.

Zantedeschia odorata is very similar to the common white arum except it's deciduous and strongly scented. It's rare and found only on the Bokkeveld plateau near Nieuwoudtville where it flowers from July to August in seasonally moist dolerite outcrops. It's listed in the Red Data List of threatened plants.

Most other arums aren't often seen in the wild. They are all summer growing and deciduous, going dormant in winter. Probably the most common in the summer rainfall areas is Zantedeschia albomaculata, the spotted-leafed arum. This species is found in damp spots and on rocky outcrops and populations extend into central Africa at high altitudes such as in Lesotho. The flowers vary from white to cream with a dark purple centre at the base of the spathe. Occasional pinkish and orange forms occur

RIGHT: Zantedeschia pentlandii, is one of the two rare yellow arums known only from the high mountains in Sekhukhuneland.





- Arums occur in moist *vleis*.
- Two rare yellow species are endemic to Sekhukhuneland close to the Drakensberg.

which have been selected and bred to produce the popular Helen O' Connor. A sub-species of Zantedeschia albomaculata with unspotted heart-shaped leaves occurs in KwaZulu-Natal. It has been elevated to a full species as Zantedeschia valida.

Zantedeschia rehmannii is a small pink species with sword-shaped leaves occurring in KwaZulu-Natal, the eastern Free State, Mpumalanga and Swaziland.

## 'There are clear taxonomic differences between them.'

It has become popular as a horticultural and pot plant subject and is widely cultivated in Europe and the US. It would be an exciting find on your property.

The two spectacular bright yellow arums, Zantedeschia pentlandii and Zantedeschia jucunda have a limited distribution in Sekhukhuneland near the border of Limpopo and Mpumalanga. They are



both rare and because of their limited distribution are listed as vulnerable in the Red Data Book. While similar in appearance the populations are separate and there are clear taxonomic differences between them. While Zantedeschia jucunda has more pointed triangular leaves that are invariably heavily spotted, Zantedeschia pentlandii has oblong leaves generally without spotting.

#### Defining differences and relationships

Charles Craib made an intensive study of the relationship between these two plants and human activity published in the journal of the International Bulb Society, Herbertia Volume 57, 2003, and he published an account of their current status in the September 2003 issue of Veld and Flora, the organ of the Botanical Society.

He observed that Zantedeschia jucunda is endemic to the summit of the Leolo Mountains in Sekhukhuneland at altitudes of between 1 600m to 1 900m, where it occurs in crevasses on cliffs and among

piles of boulders constructed by the Pedi people. Exploitation in the form of selling bulbs to the horticultural trade happens, but it appears to exist compatibly with human activity. Zantedeschia pentlandii occurs at altitudes of between 1 800m and 1 900m in the region north east of Roossenekal and in the Tonteldoos area. Whereas previously fairly widespread in the region, plants are now confined to rocky areas protected from livestock grazing and porcupine predation.

A strange anomaly is the existence of Zantedeschia elliottiana, a yellow species known only from cultivated material and freely available in the horticultural trade. While its origin is unknown, it's assumed to be a hybrid of the two Sekhukhuneland species. Perhaps the greatest challenge for landowners in Limpopo and Mpumalanga is to discover further populations of the two rare yellow species which so far only occur at Sekhukhuneland.

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ABOVE: The small pink arum, Zantedeschia rehmannii, is found in the eastern Free State, KwaZulu-Natal, Mpumalanga and Swaziland