



Wahlenbergia undulata flowering in Kirstenbosch during the summer. Photo: F. Conrad.

BELLFLOWERS

Getting to know the South African bellflowers

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*'And there with hispid leaves and blooms
Of darkened sapphire, richly swinging,
The Bell-flower nettle leaved illumines
With azure light the woods; while bringing
Around it's troops of insect things,
With merry song and dancing wings'*

Anne Pratt

Many South African plant lovers are bound to have come across Canterbury bells (*Campanula medium*) which are generally available as seedlings or seeds. This exotic bellflower, however dominates the market at the expense of our indigenous bellflowers, which have great potential as garden plants. The bellflower or bluebell family, Campanulaceae*, is widely distributed throughout the world especially in temperate and subtropical regions and consists of about fifty genera and more than 900 species. In South Africa the family contains mostly herbs (annual or perennial) and, rarely, small shrubs and there are ten genera of which seven (*Merciera*, *Microcodon*, *Rhigiophyllum*, *Roella*, *Siphocodon*, *Theilera* and *Treichelia*) are endemic. Taxonomically the shape of the ovary and capsule separates the genera.

The leaves of the bellflowers are alternate, sometimes opposite, simple, and without stipules and the flowers are regular, bell-shaped, funnel-form or salverform (consisting of a corolla with a narrow tube and small spreading lobes) and bisexual. They are borne singly or more often in inflorescences. The large showy flowers are predominantly blue. The colour blue is particularly attractive to bees but there are a number

of other pollinators (see 'South African bluebells' in *Veld & Flora* 85(2) June 1999, p 80). Petals, sepals and stamens are normally in fives. The petals are partially or completely fused and are inserted on an inferior or half inferior (although sometimes a superior) ovary. There are as many stamens as corolla lobes. The style is simple with as many stigmas as carpels. The fruit is a capsule. All plants flower during summer.

Wahlenbergia, the largest and most widely spread of the South African genera, consists of 170 species that occur in the south-western Cape, KwaZulu-Natal, Eastern Cape, Mpumalanga and Northern Province. This genus is mixed, containing annuals, perennial herbs and sometimes small shrubs. It is probably the most attractive, and is horticulturally the most desirable genus of all the South African genera. *Wahlenbergia undulata* is cultivated at Kirstenbosch and is in full flower during summer.

The thirty species of small shrubs and perennial herbs that belong to the genus **Prismatocarpus** occur in the south-western Cape and Eastern Cape. The bell- or salver-shaped flowers are situated in leaf axils or on the tip of leafless flower stalks and are blue, violet and white. *Prismatocarpus pedunculatus* (rollersbos) is a good pioneer plant and is used to reduce water run-off and erosion.

Roella is a genus of small shrubs and herbs that are found mainly in the south-western Cape, but one out of the twenty-four known species extends into the Eastern Cape and KwaZulu-Natal. Its large, attractive, blue flowers are borne on the tips of branches in groups or singly. The popular species, *Roella ciliata*, is well liked by gardeners of indigenous plants.

The genus **Microcodon** is small and is found only in the south-western Cape. It consists of four species, all of which are annuals. The plants grow in sandy places and they produce white or blue flowers.

Merciera is a genus of four species that is also restricted to the south-western Cape. All species are perennials that look very similar in habit to *Roella ciliata*. This genus is known to have occurred in the Cape Peninsula more than a century ago, but is now probably extinct.

Craterocapsa is the only genus in South Africa that has no members in the south-western Cape. It occurs in KwaZulu-Natal, the Eastern Cape, Free State, Northern Province and Gauteng and consists of four species of perennial herbs. The plants grow along the ground and are often mat-forming.

Siphocodon is a genus of only two species restricted to the south-western Cape. These slender wiry perennials are often entangled with themselves or with other plants. The flowers are white and blue.

Rhigiophyllum consists of one species that is found only in the south-western Cape. This rigid, erect shrublet is easily recognized by its egg-shaped leaves which are densely arranged on the stems and by the deep blue flowers that are borne in terminal heads.

Like *Rhigiophyllum*, **Treichelia** is a single species genus from the south-western Cape. These dwarf coarse herbs bear their flowers in dense terminal heads with long narrow bracts in between the flowers, hence the name *Treichelia longibracteata*.

Theilera, also a single species genus, has a wider distribution than *Treichelia*. It occurs in the south-western Cape as well as in the Eastern Cape. It is an erect shrublet with slender branches and is found mainly inland. ♀

*The family is taken here in the strict sense and excludes the families Lobeliaceae, Cyphiaceae, Cyphocarpaceae and Nemacladaceae, which sometimes are considered as subfamilies of the Campanulaceae.



Above. *Prismatocarpus diffusus*. Photo: J. Manning.

Below. *Roella ciliata* growing in Pringle Bay. Photo: F. Conrad.

