

# *Disa longipetala*

## Observations of the wire orchid or kapotjie, *Disa longipetala* (Lindl.) Bolus, from the Western Cape

by William Liltved

Recent fires across the clay foothills of mountains edging the Breede River Valley near Wolseley in the Western Cape, resulted in an astonishingly colourful and abundant spring flowering display of geophytes belonging to a wide range of plant families (see accompanying box). Yet, in its mature state, the dense, expansive stands of pallid-grey renosterbos *Elytropappus rhinocerotis*, mixed with fynbos plants such as *Protea repens*, belie its exquisite spring-time potential! One such plant was the intriguing little orchid, *Disa longipetala* (Lindl.) Bolus.

Of the six orchid species belonging to *Disa* section *Schizodium* (Lindl.) Bolus, *Disa longipetala* is surely the most extraordinary. John Lindley, often celebrated as the 'Father of orchidology', described this distinctive little Cape orchid in 1838, basing his description of *Schizodium longipetalum* on a Johann Drège collection from 'Paarl mountain'. Then, in 1897, Rudolph Schlechter applied the name *Schizodium antenniferum* to plants he had collected on the Piketberg and which were figured by Harry Bolus in 1896, in his first volume of *Orchids of South Africa (Icones Orchidearum Austro-Africanarum extra-tropicarum)*. Although the name '*antenniferum*' is perhaps more appropriate (due to the curious floral structure of the plant, referred to below), Lindley's earlier name, '*longipetala*', according to the rules of botanical nomenclature, has priority. The species name, *longipetala* is derived from the Latin, *longus* = long and *petalum* = a petal, referring to the long, narrow, antenna-like processes of the petals and lip.

The genus *Schizodium* was also proposed by Lindley in 1838, who described three of the six species (the other three having been described earlier by Linnaeus and Thunberg, but in separate genera). In 1888, Bolus elected to include these species in *Disa*, an approach that was not adopted by subsequent botanists. However, it appears he was correct in his assumption, as current molecular research by Benny Bytebier at the University of Stellenbosch, shows *Schizodium* to be firmly embedded in the genus *Disa*. The most recent revision of *Schizodium* was by Peter Linder in 1981. The sectional name, *Schizodium* is derived from the Greek, *schizein* = to split and *eidos* = resemblance: having a split appearance, and possibly refers to the bifid (divided by a deep cleft into two parts) petals, the highly lobed lip or possibly its unusual growth habit.

*Disa longipetala*, is the rarest species in section *Schizodium* (the species of which are commonly known by the names, wire orchid or kapotjie) and is known only from a few scattered and vulnerable populations in the Western Cape. The plants range from 70 mm to 200 mm tall and the flowers are sweetly perfumed with a hint of vanilla.

All six members of *Disa* section *Schizodium* are confined to the Cape Floristic Region, and are characterized by a most peculiar, basally erect, three lobed lip. The lip appears glandular in some species and probably plays an important role as a landing platform for pollinators. Further peculiar features of species in section *Schizodium* are the tendency for their glossy brown

and wire-like inflorescence stems to have irregular S-shaped bends at various points, and for the leaves to form a basal rosette at ground level. Leaves of *D. longipetala* have crisped margins and those of *D. bifida* may be spotted or variegated, with purple undersides. 🌿

### A list of geophyte genera and species observed on the clay foothills of mountains edging the Breede River Valley near Wolseley in the Western Cape

**Iridaceae** *Moraea* (especially of the *Galaxia* and *Homeria* groups), *Aristea*, *Geissorhiza*, *Hesperantha*, *Watsonia*, *Babiana*, *Gladiolus*

**Oxalidaceae** Predominantly *Oxalis purpurea*

**Campanulaceae** *Cyphia bulbosa* var. *bulbosa*, *C. subtubulata*

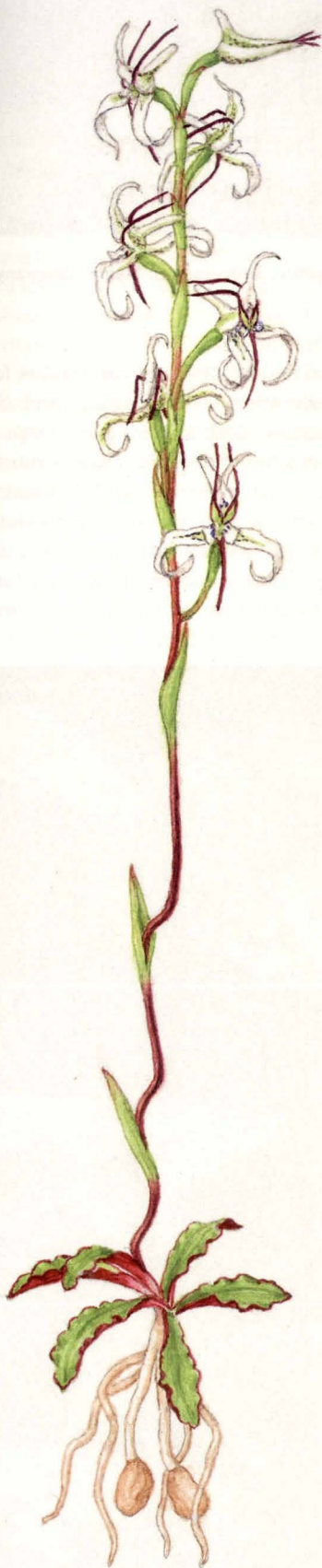
**Colchicaceae** *Wurmbea*, *Onixotis*

**Hyacinthaceae** Predominantly *Lachenalia orchioides*

**Haemodoraceae** *Wachendorfia paniculata*

**Orchidaceae** *Bartholina burmaniana*, *Disperis bolusiana* subsp. *bolusiana*, *D. capensis*, *D. circumflexa* subsp. *circumflexa*, *D. cucullata*, *D. villosa*, *Pterygodium alatum*, *P. catholicum*, *P. platypetalum*, *P. volucris*, *Corycium orobanchoides*, *Holothrix cernua*, *H. villosa*, *Disa longipetala*, *D. physodes*, *D. satyrioides*, *D. spatulata* subsp. *spatulata*, *D. tenella* subsp. *pusilla*, *Satyrium erectum*, *S. bicallosum*, *S. bicorne*, *S. coriifolium*, *S. humile* and *S. lupulinum*.





LEFT: The wire orchid or kapotjie, *Disa longipetala*, from the Breede River Valley. This rare orchid, measures between 70 mm and 200 mm tall and is only known from a few scattered populations in the Western Cape. The flowers are sweetly perfumed with a hint of vanilla.

Watercolour by Fay Anderson.

### BotSoc link

The accompanying illustration is the most recent of Fay Anderson's watercolours to be produced for a forthcoming book *The Cape Orchids* by W. R. Liltved and S. D. Johnson. This exceptional publication, on the indigenous orchids of the Cape Floristic Region, is to be endorsed by the Botanical Society.

### Further reading

Linder, H. P. 1981. Taxonomic studies on the Disinae: 2. A revision of the genus *Schizodium* Lindl. *Journal of South African Botany* **47**, 339-371.  
Linder, H. P. and Kurzweil, H. 1999. *Orchids of southern Africa*. Balkema, Rotterdam.