

DROSERA MERISTOCAULIS: AN INTRIGUING SUNDEW FROM SOUTH AMERICA

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The unusual *Drosera meristocaulis* resides on the summit of Cerro de la Neblina, a tepui of southern Venezuela (0° 54.5' N; 66° 2.5' W). This stem-forming species superficially resembles *D. neocaledonica*, but the floral details place it in its own sub-genus. A brief description, based on herbarium study, is given below.

The New York Botanical Gardens has led several scientific expeditions to the species-rich regions of tropical America, and during a 1953-54 expedition to Venezuela, Cerro de la Neblina was climbed and explored. Amongst the botanical treasures seen was an unusual species of a stem-forming sundew. This species was named and described *Drosera meristocaulis* by Maguire and Wurdack in 1957. An additional herbarium collection of it was made in 1985.

The plants form vertical, variably branched stems up to 150mm tall. Adventitious roots grow through the column of retained dead leaves, and this tangle of roots becomes exposed in herbarium specimens as old leaves fall away. It is not known if this also happens in the wild. The growing point at the apex of each stem bears a semi-erect rosette of spatulate leaves. The leaves are as long as 16mm long, and consist of glabrous, linear petioles up to 12mm long, and oblanceolate lamina which are up to 4mm long by 1mm wide. The rosette centres are conspicuously hairy due to a silvery white stipule at the base of each leaf. Each stipule is approximately 10mm long, and is divided almost to the base into many filiform segments (Figure 1).

Based on the presence of fruiting capsules near the growing point of many of the herbarium specimens seen, it appears that this species flowers in December. The architecture of the flowers characterises this species. The solitary flowers are produced on such short pedicels that they are almost sessile. The three styles are undivided, which in the genus *Drosera* is a feature shared only with the palaeoendemic *Drosera regia* (Schlauer, 1996).

According to notes on the herbarium sheets, *Drosera meristocaulis* is locally frequent between 1900m and 2200m altitude in open bog savannas, in *Heliampora neblinae* swamps, and along streams with *Euterpe*. It is interesting that specimens collected near the summit of Cerro de la Neblina often have several different lichens on the dead leaves below the active rosettes. These include colourful small red cupped lichens, small yellow disc lichens, and irregularly-oval white lichens.

A number of speculations are warranted on the pollination of this species. Whilst the open pink-petalled flowers are relatively large at approximately 20mm across, they are located within the morass of actively trapping leaves—a juxtaposition unique in the genus. It appears reasonable that this species is pollinated by large-sized flying insects which are too large to become ensnared by the many small trapping leaves.

Little is known about this species. Since its initial description it has remained in obscurity, and only snippets of information are on the few herbarium sheets stored at locations on both sides of the North Atlantic. The study of live plants would provide valuable information on this apparently archaic species, and would shed light on the evolution of the genus. From field notes and the specimens seen, it has horticultural appeal, although it is difficult to visit its only habitat (see the article on page 122!). It is unlikely that *Drosera meristocaulis* is yet in cultivation, but it would probably grow as easily as *Heliampora*.

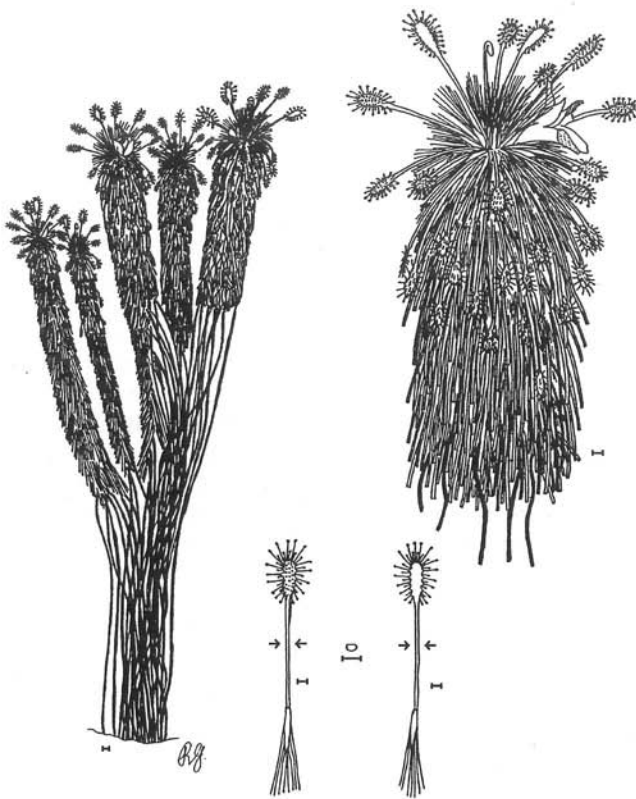


Figure 1. *Drosera meristocaulis* from the isotype herbarium sheet B. Maguire, J.J. Wurdack and G.S. Bunting 37133. Collected January 5, 1954, and now housed at the British Museum (Natural History) in London. A mature plant is shown, with enlarged examples of a rosette and both sides of a leaf. Note the calyx amongst the semi-erect rosette leaves and the much divided stipule. Scale bars=1mm.

In conclusion, *Drosera meristocaulis* is an interesting species due to its unusual features and its relative obscurity. Whilst its future in the wild seems assured due to difficult access and no population pressures, it would be wonderful to one day see and study live plants in cultivation. It may hold the key to many mysteries about the evolution of *Drosera*.

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