

Ornithogalums in the grasslands of the North West Province

by Charles Craib, with photographs by Connall Oosterbroek



The Delareyville district in the western part of the North West Province is an area of summer rainfall grasslands with dry, cold winters and hot summers. A few rocky patches in the grassland are found in the vicinity of the extensive pans in the area. The largest of these is Barberspan the biggest perennial body of fresh water in South Africa. Leeupan, immediately north of Barberspan, has extensive rocky calcrete habitat as do some of the other smaller pans in the area but not on the same scale.

During late May 2005 an unusual *Ornithogalum* species was found amongst short grass and calcrete pebbles in an area of gently sloping ground. This habitat was fairly extensive around one of the larger pans near the Barberspan Nature Reserve. The plants were found growing in small, scattered groups of two to five bulbs or on their own. Their leaves were cryptic and covered in fine calcrete dust that clung to their rough surfaces. The plants were in full growth at a time when the ground was beginning to dry out after the last rains at the end of summer.

We went back to see the plants once more on 22 June, the

TOP RIGHT: A new and as yet undescribed, winter-growing *Ornithogalum* that occurs near one of the larger pans in the vicinity of the Barberspan Nature Reserve in the Delareyville district in the North West Province. The tiny plants were in full flower in mid September 2005, shortly after their leaves had withered away.

BELOW: The fruit of the *Ornithogalum* species near Barberspan. Photos: Connall Oosterbroek.



shortest day of the year. The leaf tips on some of the plants had started to die back. There was, however, no evidence of flower bud formation at this stage. The same day we visited the habitat of another apparently undescribed *Ornithogalum* about 150 km to the north-east, as the crow flies, in the Lichtenburg district. This plant also grows in the autumn and early winter in comparable countryside with short grass and stony ground. These plants had well-formed buds and some were about to come into flower. This *Ornithogalum* is unifoliate and covered in coarse bristles on the upper leaf surface. (See the article in the September 2001 *Veld & Flora*.)

The third visit to the locality near Delareyville was in mid September. The ornithogalums were in full flower. Some had just started to initiate bud development whilst in a few cases plants already had seed capsules in an advanced state of development. Large numbers of *Albuca setosa* were in flower at the same time. No natural hybrids between the two plants were noticed and it would be interesting to examine the factors that keep them separate. In some cases the two species were flowering only 4–10 cm apart. *Albuca setosa* is very common in the North West Province and Gauteng. It flowers in the late winter and early spring either just before the new leaves of summer are produced, or simultaneously with the production of new leaves. In contrast, the *Ornithogalum* flowers just before it enters dormancy in October. The first rainstorms of the summer usually fall by mid October.

During May 2005 a search was conducted at the southern end of Barberspan to see if the ornithogalums could be found in similar habitat there, but no bulbs were seen. The reserve is stocked with ostriches that are highly destructive to small bulbs and caudiciforms (plants with a swollen stem). It may be that the ornithogalums will still be found in the reserve in stony areas that are less frequented by ostriches.

At the locality where we found the ornithogalums, porcupines frequent the steep banks below the *Ornithogalum* habitat. These animals are numerous judging by the numbers of their burrows but do not appear to feed on the *Ornithogalum* bulbs. The main factor controlling the numbers of young bulbs at present is domestic stock that periodically grazes the habitat.

The mature bulbs are too deep-seated in the ground to be damaged by trampling but the young bulbs that occur close to the surface of the soil are readily damaged. The ornithogalums tend to occur mostly amongst pebbles where

they are protected from the hooves of grazing animals or in areas with very short grass cover, which are the least attractive for grazing livestock.

The road reserve close to the study area provides a good indication of the range of habitat colonized by the species in the absence of grazing. The ornithogalums grow mostly in open areas with short grass, amongst pebbles and particularly in areas with exposed sand and scant grass cover. The plants are least numerous in places with the densest accumulations of calcrete rocks and stones. There is a good population of young plants in the road reserve

but few in the surrounding farmland.

The taxonomy of both the ornithogalums from the Delareyville district and the Lichtenburg district is currently being studied at the South African National Biodiversity Institute (SANBI).

Readers are encouraged to report any findings they might have made of these plants to the herbarium at SANBI. Further records will assist taxonomists with the placement of these two ornithogalums. At present the plants are known from small isolated populations and a mere handful of records. 📍

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ABOVE: The author, Charles Craib, pointing out an *Ornithogalum* in flower. You have to look really close to see the tiny plant!

LEFT: The edge of the *Ornithogalum* habitat near Barberspan slopes down towards the pan with flamingos and *Phragmites* reeds at the pan's edge.

BELOW: The short grassland habitat of the tiny ornithogalums. The plants are really too small to see although they are growing in the short grass, and one can be seen in the lower right hand corner, near the track that exposes the calcrete soil in which the plants like to grow.

Photos: Connall Oosterbroek.



Further reading

Craib, C. (2001) A new *Ornithogalum* species from the North West Province. *Indigenous Bulb Association of South Africa Bulletin* 50, 17.

Craib, C. (2001) An undescribed *Ornithogalum* from South Africa's North West Province. *Herbertia*, 56, 105-108.

Craib, C. (2001) An unusual dwarf *Ornithogalum* from the North West Province. *Veld & Flora*, 87(3), 126.

