NERINE FRITHII

A graceful species from the North West Province.

by ***Charles Craib***

Nerine frithii is amongst the rarer South African species mainly recorded from the North West Province. Most of the herbarium records that exist are from plants collected during the first half of the last century. These were largely from the central and northern regions of the North West Province. The main habitat in which plants were recorded in those days was moist depressions with short grass and also the margins of temporary pans. Most records of plants in flower were in late February, March and April.

I decided to conduct a preliminary survey of this species in the late summer and early autumn of 2001 in the North West Province. The main objectives of the study were to see if the plants could still be found in areas where they were recorded last century and to record the conditions under which the plants grew. It is not clear from the records whether plants were occasional or occurred in colonies. The species was however noted as occasional in a grassland setting near Wolmaransstad early last century.

The time chosen for the study coincided with a drought broken by substantial rainfall in the central and northern parts of the North West Province. Searches were conducted in likely looking habitats in the magisterial districts of Delareyville, Koster, Lichtenburg, Malopo, Marico, Schweizer-Reneke, Vryburg and Wolmaransstad. Much of the previously recorded habitat in these areas, and elsewhere in the North West Province, is now under maize, urbanized under informal settlements or degraded fields of introduced weeds.

A great deal of territory was searched during the survey but the plants were only located in relatively pristine country in the Lichtenburg and Zeerust districts. Four separate colonies were found consisting of widely scattered groups of plants within an area of about 20 km^2.

Plants grew in groups of two to twenty and, quite often, singly. Occasionally large clumps of thirty or more bulbs were encountered in damp hollows surrounded by rocks. Most bulbs were growing in shallow depressions adjacent to exposed dolomite rock usually around tufts of short grass. Some groups of plants grow amongst taller grass and in a few cases amongst shrubs of *Pelargonium dolomiticum*. The two largest colonies were at the edges of extensive very shallow depressions around exposed dolomite, which fill up with water for a few days after heavy rainfall.

The plants come into flower at the beginning of February and the flowering period extends until about the middle of April. A large number of bulbs came into flower in a leafless state during February and March 2001 because of the hot dry weather in December and January. The flower colour varied from white to a pale pastel pink. Petal size was also very variable, some plants characterized by flowers with deeply reflexed petals.

The biggest groups of plants were normally in hollows surrounded by large dolomite rocks. These situations generally have deep soil conducive to the development of bulbs and the germination of seeds. The nerines growing in these hollows generally

Above ***Nerine frithii*** **photographed in habitat shortly after a rainstorm. The depressions in the dolomite rock have filled with rainwater which keeps the habitat moist for several days after rain.** Opposite page **Details of the flowers of a white-flowered clone of *Nerine frithii*.**
Photos: C. Knoll.

proliferate bulblets around the sides of the bulbs. This habit, in addition to good seed germination, often resulted in bulbs occupying most of an available niche with deep soil.

Nerine frithii is characterized by a long seeding period from mid-February until late April. The first flowers to open are usually shedding their berries whilst there are still flowers and buds on the remainder of the umbel. This prolonged seeding period ensures that the relatively small amount of seeds that the species produces is liberated into the environment over a period of about five to eight weeks. The habitat is periodically very wet and very dry so this strategy ensures that some seed will be shed during wet weather.

Berries start to develop a radicle three to seven days after they have been liberated from the umbel. They germinate around the parent plants should the soil be moist enough. If berry production coincides with rainfall, seeds may be moved many metres from the parent plants by water and run-off after rainfall. Berry production is very variable even in the same season with less seed forming during spells of very hot dry weather.

The area where *Nerine frithii* was located is used exclusively for cattle ranching. The effect of livestock on the plant colonies was observed and the data collected proved interesting. Nerines in flower in grassland were often trampled by cattle whilst plants growing amongst rocks and in soil with short sparse grass were rarely trampled. Road reserves play a significant role in the ecology of this species as they exclude grazing cattle, and allow colonies to develop in a range of habitats, although being restricted, they can never permit the development of large colonies of *Nerine frithii*. They do, however, act as seed reserves, which allow re-population of the adjacent veld after heavy grazing.

The area in which *Nerine frithii* grows supports an interesting and varied bulbous flora including some large groups of *Crinum graminicola* and a peculiar undescribed *Ornithogalum* species. The *Ornithogalum* grows in narrow soil pockets on sheets of exposed dolomite and is described in the article on page 126.

It is evident that *Nerine frithii* has declined in recent times and is absent from most areas where it was formerly recorded. Farmers can play a significant role in assessing current populations of this species and preventing the disappearance of this beautiful plant from the flora of North West Province. *Nerine frithii* has a great deal of horticultural potential. It could be cross-bred and selected to form the basis of a number of unusual and attractive cultivars and hybrids. At present, however, this very ornamental and attractive species is hardly known in cultivation.