

## SOME INTERESTING OBSERVATIONS OF LADY'S SLIPPER ORCHIDS DURING FIELD STUDIES IN MANITOBA

Field studies carried out on native Lady's Slipper Orchids (*Cypripediums*) in south-eastern Manitoba over the last 20 years have allowed the authors to observe several interesting things.

It was possible to accurately determine the age of single plants within this genus by counting growth rings on the rhizome and adding an average of five years for seedling growth. In Stemless Lady's Slipper (*C. acaule*) and Ram's head Lady's Slipper (*C. arietinum*) the stems remain attached to the rhizome for a number of years, making age determination relatively easy. If no stems present, rings will be found along the rhizome which represent them. This technique was used on plants observed in the field for 20 years and proved to be an accurate way of determining the plant's age.

Using this technique the author was able to determine that a large number of Yellow Lady's Slipper (*C. calceolus* var. *parviflorum*) germinated over a large area including Belair, Sandilands and Agassiz Forest Reserves and Gull Lake, 30 years ago.

The Yellow Lady's Slipper found growing in a spruce-poplar forest complex, was monitored over a 15-year period. During that time, all of the plants grew only single stems. Two plants were removed and planted in a location affording more light. Within four years, one plant produced five stems while the second plant had six.

Many attempts have been undertaken to save orchids threatened either by man-made or natural disturbances. To date these attempts have met with mixed results. The author has been able to consistently transplant orchids with excellent survival rates.

To determine how well orchids could be transplanted and the optimum period for transplanting, a small experiment was conducted in 1983, in an area slated for clear-cut logging (photo #1) in the Belair Forest Reserve. Over an eight-week period, during July and August, two plants were removed each week and placed in a safe, similar habitat. The plants were watered weekly during this period, except for the last two plants which received only one watering at the time of transplanting.

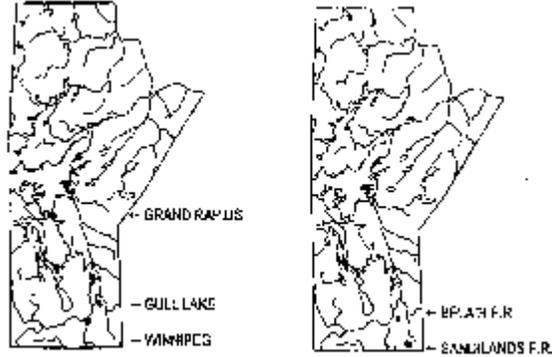
The following spring, only two plants had died -- the two from the final transplanting which had received a single watering. The rest seemed to have transplanted well. The conclusions were that native orchids could be successfully transplanted during the peak growing season, after flowering had occurred, if adequate moisture was available.

Field trips were also made to the Grand Rapids area in central Manitoba, from 1985-1992. Here it was noted the Ham's head Lady's Slipper grew in clumps which is quite different from south eastern Manitoba, where they grew as single stems.

How old can an orchid get? The authors know of a single Yellow Lady's Slipper (*C. calceolus* (L.) var. *pubescens*) that was pulled up by the roots by a seven-year old boy, as a gift for his mother. The orchid was planted in the garden and has grown

successfully for the past 50 years.  
Allowing for the seedling growth period, this plant is probably around 60 years old.

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(Photo # 1)

Map of the province of Manitoba showing the City of Winnipeg; Grand Rapids; Sandlands and Belair Forest Reserves; and Gull Lake.



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Roots and stems on the rhizome of *Cypripedium acaule*. Photographed at Belair Forest Reserve.



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Clumps of *Cypripedium arietinum* photographed near Grand Rapids, Manitoba



Single growths of *Cypridium arietinum* photographed near Gull Lake, Manitoba.