



Wild Bergamot (horse mint)

Please Note

An annual general meeting will be held in April, 2005. Three positions will be voted on after nominations: president, membership chair and Web manager.

We had a grant in 2004 from Sustainable Development Innovations Fund for a seeding project and areas in southeastern Manitoba were seeded last summer.

We have a grant from Nature Conservancy to do research on the Western Fringe Orchid in 2005.



Wild Bergamot; photographed by Bud Ewacha

Wild Bergamot An erect aromatic perennial growing up to 1 m tall, with square stems, opposite, lance-shaped, saw-toothed leaves that may be grayish with soft hairs, and smaller green bracts under a large terminal head of flowers consisting of green sepal tubes ending in purplish teeth, and showy rose or lilac-colored (rarely white), fuzzy, two-lipped petal tubes, the upper lip narrow and bearded at the tip, the lower lip spreading into three lobes.

Fairly common on hillsides, in thickets and open woods, and on roadsides across southern Canada, through most of the U.S.A. and in Mexico.

The whole plant can be boiled and the decoction drunk by women after childbirth to "clean out the blood and heal the womb". It can also be mixed with other herbs to treat menstrual cramps, stomachaches, headaches and fever.

The seeds have 19.8 g of protein, 17.4 g of fat, 26.6 of crude fiber, and 6.7 g of minerals (ash). The leaves are very aromatic, and varieties have been select-

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ed that have an essential oil rich in either geraniol, linalool, or thymol.

Wild bergamot is under development as an essential oil crop at the Agricultural and Agri-Food Canada research station in Morden, Manitoba.

Aboriginal Plant Use in Canada's Northwest Boreal Forest, National Resources Canada

Conservation/Determining the Age of *Cypripedium*s

FIELD studies carried out on lady's-slipper orchids (*Cypripedium*) in southeastern Manitoba over the last 20 years have allowed me to make several interesting observations.

It was possible to determine accurately 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 moccasin lady's-slipper orchid (*Cypripedium acaule*) and ram's-head lady's-slipper orchid (*Cypripedium arietinum*) the stems remain attached to the rhizome for a number of years, making age determination relatively easy. If no stems are present, rings representing them will be found along the rhizome. This technique was used on plants observed in the field for 20 years and proved to be an accurate way of determining the plants' age.

Using this technique, the author was able to determine that 36 years ago, a large number of yellow lady's-slipper orchids (*Cypripedium calceolus* var. *parviflorum*) germinated over a large area including Belair, Sandilands and Agassiz Forest Reserves and Gull Lake.

Seventy plants of the yellow lady's-slipper orchid found growing in a spruce (*Picea mariana*)-poplar (*Populus tremuloides*) forest complex were monitored over a 15-year period. During that time, all of the plants grew only single stems. Two plants were legally 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 by either manmade or natural disturbances. To date, these attempts have met with mixed results. I have been able to consistently transplant orchids including western fringed (*Platanthera praeclara*), moccasin flower (*Cypripedium acaule*), ram's-head



BELOW The stem, rhizome and roots of moccasin lady's-slipper orchid (*Cypripedium acaule*) photographed at Belair Forest Reserve, Manitoba. ABOVE A clump of ram's-head lady's-slipper orchid (*Cypripedium arietinum*) photographed near Gull Lake, Manitoba.

lady's-slipper orchid (*Cypripedium arietinum*) and showy lady's-slipper (*Cyp. reginae*) 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 in the Belair Forest Reserve in Manitoba. Over an eight-week period during July and August, two plants of moccasin flower (*Cyp. acaule*) were removed each week (no permit or permission necessary), and placed in a safe, similar habitat: a pine forest (*Pinus banksiana*). The plants were watered weekly during this time, except for the last two plants, which received only one watering at the time of transplanting. The following spring, only two plants had died (both from the final transplanting that had received a single watering). The rest seemed to have transplanted well, and grew and flowered for five years before the planting was eradicated with the development of a gravel pit.

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 1982 to 1992. Here it was noted that the ram's-head lady's-slipper orchid grew in clumps, something that is quite different from southeastern Manitoba, where plants as this species grew as single stems.

Regarding the age of an orchid, I know of a single yellow lady's-slipper orchid 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 56 years. Allowing time for the seedling growth period, this plant is probably about 66 years old and has grown into a clump of 15 stems.

— Bud Ewacha has devoted the last 30 years to conserving Manitoba's wild plants and their habitats since he began working with orchids in 1975. It's a lifelong hobby that has blossomed into a career in research. Orchids have long been a special love for Ewacha, who has written articles about the beautiful and fragile flowers. In April 2003 he formed a new conservation group — Conserve Native Plants Society, Inc. (C.N.P.S.) — to protect all native plants that are endangered. This society's mission is to locate rare native plants and to work toward protecting and reestablishing these plants into their native habitats. Bud loves to share his understanding of wild and rare plants, and his prime consideration will be the protection of these endangered species. — 35 St. Michael Road, Winnipeg, Manitoba R2M 2K7 Canada (e-mail bud_ge@escape.ca).