Native Orchid News:

The Newsletter of Native Orchid Conservation Inc.



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Annual General Meeting Friday, March 1, 2013

Plant of the Month Indian Pipe (Monotropa uniflora)





Plant of the Month

Indian Pipe (Monotropa uniflora)

By Doris Ames

The genus name comes from the Greek words *monos* meaning "one" and *tropos* meaning "turn", a reference possibly to the solitary, nodding flower that turns to one side or to its habit of straightening up or turning up after pollination. The species name *uniflora* means "one-flowered". The common name refers to the resemblance of the flowering stem to a calumet or Indian peace pipe used in ceremonies.

This perennial plant is a member of the Heath Family (Ericaceae) a diverse group of plants found around the world growing mostly on acid soils. (N.B. Indian Pipe until recently was placed in the Wintergreen (Pyrolaceae) Family and is still listed there in some books.)

Like orchids, the heaths have a symbiotic relationship that develops with soil fungi and infects the roots. Relationships between a fungus and the roots of a plant are called mycorrhizal. The mycorrhizal relationship has progressed so far in Indian Pipe that the plant has completely lost the ability to photosynthesize. Plants that have completely lost the ability to photosynthesize are called heterotrophs. Most of the heterotrophic plants are parasitic, which absorb energy directly from the plant host. Heterotrophs that rely completely on a fungus like Indian Pipe does are referred to as mycoheterotrophic. Indian Pipe is thought to be associated with the mycelium of gilled mushrooms like Russula.

Indian Pipe is usually found growing in rich, shady woodlands with acidy soil. The fleshy 4-12" tall plant is white and waxy and grows from a fleshy ball of roots. There are no leaves, just scaley bracts with black tips. The flowering stems each produce a single, white, nodding, bell-shaped flower in July-August. There are usually 5 petals on each flower, 2 sepals and a number of stamens. The flower straightens up after pollination and turns pinkish with age. Bumblebees are believed to be the pollinators. The fruits are erect, circular capsules filled with many seeds that turn brown when ripe. The capsules split and the tiny seeds are scattered in the wind. The old, stiff brown stalks with attached capsules persist through the winter and can be still seen the following summer. Some books say that the plant withers away and dissolves after the seeds are released but I have often seen the old brown stalks and seeds still there the following summer although they are easily overlooked if no new flowers are growing with them.

The weird appearance of this plant attracted the attention of indigenous people and pioneers. It was used as an anti-inflammatory for sore eyes, to treat toothaches, and as a sedative tea made from the roots. Although the juice has been shown to have antibacterial properties the glycosides it contains may be poisonous if consumed. The dried seedheads are used in smudging. It is also called Ghost Plant, Ice Plant and even Corpse Plant.

Another species of Monotropa, Pinesap or False Beech Drops (Monotropa hypopithys) is said to be found in Manitoba as well.

Members' Night 2012 a Hoot!

By Peggy Bainard Acheson

On Friday, October 19 NOCI had its twelfth annual Members' Night. It was wonderful to see 42 of our members, some old, some new plus a few guests out at the usual location at the Dakota Lawn Bowls Club in Winnipeg. We enjoyed a couple of wonderful presentations, had a chance to buy cards, candles, books and pins at the market tables, and bought tickets for a chance to win one of the wonderful fund-raising baskets or other items that the board had put together.

Doris Ames, President, started the evening off with a short update on the memorial bench in Eugene Reimer's memory and the progress of the Brokenhead Wetland Interpretive Trail. See her comments elsewhere in this newsletter.

David Toop, our newest board member, then took us to southeast Manitoba to talk about hydrogeology and its impact on native orchids. Although very technical, Dave, you explained it in such a way that we could all understand it!

Board Secretary Rose Kuzina took us even further afield with her wonderful visual presentation titled, "Gichigami" – A Hiker's View of Minnesota, Wisconsin and Michigan. With her wonderful photographs Rose shared many lesser known nooks and crannies of these three states, and they are now definitely on my list of places I'd like to explore.

Thank you to everyone who donated to the raffle and door prize raffle and I would also like to thank everyone who bought tickets for the raffle. The money raised goes to pay for the cost of the hall and refreshments, with the rest going into general revenue. Raffle winners were Birnie Reid, Lilianne Foster, Mary Smith, David Toop, and John Dyck. There was one more winner that we couldn't remember! If you are that winner, or you know who it is, we'd appreciate it if you'd let us know! The door prize winner was Barbara Johnson.

I would like to thank all the NOCI board members and other volunteers who came out early to set up or stayed late to help clean up and for otherwise making Members' Night a success. We couldn't do this without all of you.

President's Report

by Doris Ames

As 2012 draws to a close we can look back over the NOCI year with satisfaction. We had seven exciting field trips between April and the end of June including a wonderful field day at Mike James' woodlot to celebrate the expansion of the Brokenhead Ecological Reserve.

The long-awaited interpretive trails and boardwalks project has begun and the Debwendon Steering Committee members have been very busy. The approach and parking lot have been constructed and the contractor will soon move ahead with brushing of the interpretive trail. The gravelled paths will be done in early spring. Richard Reeves and I walked the trail several times this fall looking for significant interpretive features and I was so pleased to see how nice the trail is. It is full of interesting features like glacial erratics, many native orchids including Ram's-head lady's-slippers, beautiful cedar glens, pools and a lush mossy floor. Even in the very late fall it was still beautiful and I can only imagine how nice it will look in June. Our interpretive designer Sherry Dangerfield is developing the interpretive theme and signage and this phase should go ahead next year.

We are trying to raise funds for the signage at present and have submitted grant applications to several funders but money is tight these days. We need about \$20,000. If any of you would like to contribute towards the special professionally designed signage (in both English and Ojibway) for the trails at this time we would be very grateful. Please make out your cheques to Debwendon Inc. and indicate that you wish your donation to go towards signage. Tax receipts will be issued by Debwendon for donations of \$10.00 and over.

We would of course be very happy if you would consider donating to NOCI as well to support our conservation work, public education and field trip programs.

Meanwhile some exciting things will be happening over the winter:

Orchid expert Marilyn Light will be giving a talk on January 20 about insects associated with native orchid species and another on Chinese orchids and the Manitoba Orchid Society has graciously asked us to attend. See details about this interesting afternoon elsewhere in this newsletter. The tenth Prairie Conservation and Endangered Species Conference will take place in Red Deer, Alberta February 19-22, 2013. Early bird registration closes December 21. See http://www.pcesc.ca/ We are considering a winter field trip and we were wondering if members would be interested in one. Please contact John Dyck at jwdyck.dyck@gmail.com if you would be interested in attending. Also our annual general meeting will be coming up in the new year on March 1, 2013.

I will leave you with my best wishes for a joyful and relaxed holiday season and I hope to see you soon in the new year.