The Newsletter of Native Orchid Conservation Inc.

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Plant of the Month
Common Bladderwort
(Utricularia vulgaris)

President’s Report
By Doris Ames

Robins chirping and Wood Frogs croaking tell me that spring is here even though there is a light shower of wet snow as I am writing this. Water is everywhere with overland flooding causing problems in nearly every part of the province. When it finally all dries up we can expect a spectacular show of wildflowers. I hope many of you can join us on our first field trip of the year to see early spring flowers in the East Braintree area on Saturday, May 7. See the complete list elsewhere in this issue of Native Orchid News.
This unusual perennial is one of the ten species of carnivorous plants found in Manitoba. The botanical name comes from the Latin “utricularia” meaning little bladder and “vulgaris” meaning common.

Common bladderworts are rootless and are usually found floating in acidic water in still pools, lakes and slow-moving streams and ditches. They can grow well in alkaline water too but there is more competition in those areas from other plants. Bladderworts need to trap insects to supply the nitrogen they are missing in their nutrient-poor habitat. They usually eat worms, water fleas and mosquito larvae but will try to catch small fish and tadpoles too. The leaves are divided into thick tube-like branches, which hold multiple tiny, round bladders that function as insect traps. The more nutrient-poor the habitat is, the more traps the plant will have on those branches.

The plant blooms all summer and the small flower clusters are held well above the water. The pretty flowers are bright yellow with brown stripes and two-lipped like a snapdragon with a tiny spur. A two-valved capsule with multiple seeds is eventually produced on a short, curved stalk but it nearly always aborts. To compensate for this sterility, propagation is mostly vegetative. Hairy, dormant buds called turions are formed at the ends of the floating stems. In the fall the buds drop off and sink into the mud at the bottom of the lake. In the spring they sprout and develop underwater until it is time for them to bloom.

The mechanism of bladderwort traps is unique among carnivorous plants. Multiple, tiny (about 3mm in diameter) bladders are found on the floating branch-like leaves. These bladders have a hinged door at one end. When the door is closed the bladder expels the water through its walls by osmosis leaving a partial vacuum inside. There are long trigger hairs sticking out of the door. When an insect like a mosquito larvae comes swimming along and touches the hairs it mechanically deforms the door. The door springs open and the insect is instantly sucked into the bladder trap by the vacuum. The door instantly snaps shut and the plant pumps in digestive fluid and absorbs the insect. In about two hours the water is pumped out along with any undigested insect parts and the trap is reset. These little mechanical suction traps are the fastest of all carnivorous plant traps as they can suck in prey in less than a millisecond. A Venus Fly Trap by comparison is 100 times slower and it takes at least one week for the trap to reset. Even more amazing bladderwort traps can fire hundreds of times and this something no other plant can do. There are 5 species of Bladderwort in Manitoba.

Visit http://www.youtube.com/watch?v=Zb_SLZFsMyQ to see a Youtube video of a bladderwort trap in action.
2011 Field Trips with NOCI

2011 is the International Year of Forests and during our field trips this year we will visit different kinds of forests and forested wetlands in Manitoba. Come out and see for yourself the many beautiful plants and animals these important biomes support. Canada’s forests account for over 50% of terrestrial biodiversity, everything from orchids to carnivorous and medicinal plants and from moose to insects. Beyond that they sequester carbon and clean our air and water as well as provide food, building materials and homes for wildlife and people. Manitoba’s portion alone stores almost 100 times as much carbon as the entire country emits in one year. Help us protect our remaining forests.

Sat May 7 - East Braintree area-spring flowers- Jackpine Forest- early spring flowers-trailing arbutus, coltsfoot, marigolds, club mosses etc.

Sat May 21- Bird’s Hill- Aspen and Bur Oak Forests- 3-flowered avens, crocus, violets, pygmy flower etc.

Sat May 28- Hadashville Ski Trails- Lush, mixed riparian forest along the Whitemouth River- eastern bloodroot, crocus.

Sat June 11- 5 corners trail (Mt. Nebo area)- Deciduous forest-spotted coralroot etc. NEW

Sun June 18- Woodridge Bog- Forested wetland with Cedar and Spruce- Ram’s head lady’s-slipper, many other orchids and rare plants live in this magical area.

Sat June 25- Brokenhead Wetlands old trail- White cedar forest, wetlands-calcareous fen and bog-carnivorous plants, orchids other rare plants

To register for a trip please contact our fieldtrip-coordinator John Dyck at 204-222-7188 or jwdyck1@mts.net. Please register early because we take a limited number of participants in order to minimize damage to some of the sensitive habitats. Note the cut off date for registering for the trips will be on Wednesday the week of the field trip. There is a charge of $15.00 per adult or $5.00 per child under 18 to help to cover costs and you will be required to sign a liability waiver. You must be a NOCI-member to join us on these trips (becoming a member on the day of the trip is fine). Please dress suitably for the weather as we go rain or shine. Hats, drinking water, a bag lunch, sunscreen, and insect repellent are recommended. We will meet at a place in the city that is on a bus route before setting off on the fieldtrip. We encourage car-pooling for environmental reasons. If you wish to leave your car at the meeting place and ride with another participant, please be prepared to pay a share of the expenses. We reserve the right to cancel or reschedule trips due to weather conditions or insufficient volunteers to lead trips.
2010 Field Trip Reports

By John Dyck

Here are some of the statistics from our 2010 field trips. I think we had a great season with many new people on our trips. We were very lucky with our trips last year. With our unstable weather and much rain last spring and early summer we had no cancellations of our field trip agenda due to the wet conditions. We consider public education to be the key to successful conservation of rare plants and their habitat and our interpreted field trips are an important part of our mission.

**Portage Sand Hills** - May 22 - 20 people on field trip, 8 new members, 24 species

**Hadashville Ski trails** - June 5 - 19 members on field trip, 42 species

**Mt Nebo** - June 12 - 24 people on trip, 3 new members, 44 species

**Brokenhead** - June 26 - 29 people on trip, 8 new members, 82 species 13 different species of orchids presented themselves on this day.

**Tallgrass Prairie** - July 10 - 25 people on trip, 2 new members, 38 species

**Senkiw Wildflower Festival** - July 17 - 22 people on trip, 2 new members - Vita Horticultural Society came along on the trip, 33 species

**Total Trip Attendees** - 145 - with 23 being new members.

**Field Trip and Scouting Trips** - 6 field trips and 9 scouting trips

**Profit and Loss** - The Field Trips took in $1,090.00
- The Field Trips and the Preliminary Scouting Trips cost us $2,876.87
- We have raised our 2011 fees to $15.00 per adult and $5.00 for children under 18 to defray some of these costs while ensuring our field trips are still affordable.

**What’s new for 2011**
There is always a need to make our field trips new and exciting for both long time members and new members. I would like to bring in some new field trips as we discover new places on our scouting trips and mix them in with some of our trips that we have been going on year after year. Some of the new places we are looking at are 5 Corners which is 8 km north of Mt Nebo. Here we found a healthy population of Corallorhiza while on a seed gathering trip to Nebo last fall. Camp Morton where a scouting trip on some private property revealed a new area for Ramshead is a possibility. Woodridge is another one that we hope to put back on the 2011 trip list if weather permits. We are hoping the new trail at Brokenhead will be ready for us by June 2011 and that will take the pressure of the old trails we have been going on for many years. Changing our field trips every year will help give some of these environmentally sensitive areas a rest and save these special areas well into the future.
What a great night we had! Despite the -25 C temperatures 42 members and guests came out to NOCI’s thirteenth Annual General Meeting on February 25 2011 at the Dakota Lawn Bowls Club in Winnipeg.

Fabulous! During the election portion of the business meeting three members were elected to the board by acclamation: John Dyck, Peggy Bainard Acheson, and Matthew McBurney. As Matthew is our newest board member here is his bio:

A graduate of the Environmental Studies program at the University of Winnipeg, and the Master of GIS program at the University of Calgary, Matthew has been a GIS Specialist with the Agri-Environmental Services Branch (formerly PFRA) within Agriculture and Agri-Food Canada since 2007. Previously, he worked as a nature interpreter at Oak Hammock March for 5 years ending in 2005 when he left for Calgary. During his academic years his ecological research and fieldwork took him all over Manitoba’s boreal forest (from Moose Lake to Hudson’s Bay) as well as Alberta’s middle sand hills region. These days, he enjoys backcountry kayaking, cooking, the art of Tim Burton, and is anxiously awaiting the arrival of his first child this spring!

Welcome, Matthew!

For entertainment Doris and Will made an absolutely impressive presentation, “Through the Looking Glass” which I think everyone enjoyed. It was great to learn so much about something we’re so familiar with and Will’s wonderful macro photos allowed us to look at orchids and their seedpods in a totally different light. Thanks Doris and Will for a dynamite presentation.

Following the election and presentation, John Dyck led the silent auction and door prize give-away. Prize donors – thanks very much for your help in making these a success.

Raffle and Door Prize Donors:

Bill Acheson
Peggy Bainard Acheson
Bill Belcher
Dustin Derksen
John Dyck
Loretta Humeniuk
Loretta Hebert
Keith and Aileen Huss-Seidel
Derrick Ko Heinrichs
Mike James
Rose Kuzina
Iris Reimer
Bep Vanderwoude

Thanks also to the vendors who rented tables: Diane Beaven (on behalf of Nature Manitoba), Bep Vanderwoude (cards), Bill Belcher (wooden bowls, planters, etc.), and Richard Reeves (cards).

From the raffle, silver collection, table rentals, and book sales we raised about $283, which helped to offset the cost of holding the AGM.

Finally refreshments were served – especially the lovely cheesecakes from Double D’s. Thanks again for coming out to support us, and a big thanks to the volunteers who helped set up and take down tables and chairs, prepared food, set up the screen, laptop and projector, sold goods, and manned tables. We couldn’t do it without you all. Hope to see you all sometime during field season!