

# NEED FOR PRESERVATION OF THE GULL LAKE WETLANDS, MANITOBA

BUD EWACHA, Native Orchid Conservation Inc., 35 St. Michael Road,  
Winnipeg, MB R2M 2K7

In June 1998, Native Orchid Conservation Inc. applied for, and received, a grant from Manitoba Hydro to make a botanical survey of the Gull Lake wetlands, to be completed in the year 2000. Our recently completed interim report contains all the information compiled to date concerning the native flora of this wetlands, together with recommendations for their ongoing management. Because the findings thus far are so interesting, we decided to publish this summary of the interim results and recommendations. (The original report to Manitoba Hydro with a complete list of all plant species is available from Native Orchid Conservation Inc.)

The Gull Lake Wetlands, 50° 25' North, 96° 31' West, near the southeast corner of Lake Winnipeg, Manitoba, is immediately north of the Brokenhead First Nations Reserve. A very unusual area, it was formerly known as the Scanterbury Bog. Scanterbury was a tiny siding on the railroad between East Selkirk and Beaconsfield (where the railroad turns east to Stead and then north to Pine Falls). The southern portion of the fens was bisected by Highway 59; the main remaining fens are just west of Highway 59, north of its junction with secondary highway 219 to Stead. Dr. Karen Johnson, curator of Botany at the Museum of Man and Nature has said that these fens have more rare and unusual plants including rare orchids and carnivorous plants than any other known site in Manitoba.

The Gull Lake Wetlands is a topographically confined raised bog,

with some central ponds and marginal wet troughs (flarks) and a marginal fen. Section 34, Township 26, Range 7, comprises the biggest part of the fen and is the most interesting from a botanical perspective. A fen is a kind of peatland characterized by a high water table, but with slow internal drainage by seepage down very gradual slopes. The slow moving ground water is enriched by nutrients from upslope materials and thus fens are more mineral rich and less acidic than bogs. The pH of the groundwater in this fen is approximately 7.0 to 7.5. The vegetation has a high proportion of sedges along with many other rare and interesting plants.

Once there were hundreds of ponds but now, since the construction of Highway 59 through the area, only about 15% of the ponds have water in them. Some of the feeding streams were cut off but ten different ones are still active; two of them still keep some of the ponds supplied with water. Also, use of a well in the nearby gravel pit may have damaged some of these streams by drawing down the water table. There are two locations with indications that streams were once present, with one of them actually having water coming out of it at present. A more thorough investigation still needs to be done of the mechanisms that keep this fen supplied with water.

I have collected 255 plant species in the wetlands to date, including 28 species of native orchids, with two new species found this year. One is the Moccasin Flower, and the other is the

Rose Pogonia which is considered rare in Manitoba. As well, eight species of carnivorous plants, including the rare Oblong-leaved Sundew, Horned Bladderwort, and Linear-leaved

Sundew occur there. Twenty-four species of rare plants have been discovered in this fen, thus far. One of these, the Bog Adder's Mouth Orchid, is rare in Canada (See following lists.)

### Provincially And Nationally Rare Vascular Plants

<i>Arethusa bulbosa</i> L.	Dragon's Mouth
<i>Calopogon tuberosus</i> (L.) BSP var <i>tuberosus</i>	Grass Pink
<i>Carex capillaris</i> L.	Hair-like Sedge
<i>Carex gracillima</i> Schw.	Slender Sedge
<i>Carex sterilis</i> Willd.	Dioecious Sedge
<i>Ceanothus herbaceus</i> Raf.	New Jersey Tea
<i>Chara</i> spp.	Stonewort (a kind of algae)
<i>Cladium mariscoides</i> (Muhl.) Torr.	Twig Rush
<i>Cypripedium arietinum</i> R. Brown	Ram's Head Lady's-Slipper
<i>Drosera anglica</i> Huds.	Oblong-leaved Sundew
<i>Drosera linearis</i> Goldie	Slender-leaved Sundew
<i>Goodyera tessellata</i> Lodd.	Tesselated Rattlesnake Plantain
<i>Malaxis monophylla</i> L. var <i>brachypoda</i>	White Adder's-Mouth
<i>Malaxis paludosa</i> (L.) Sw.	Bog Adder's-Mouth *
<i>Malaxis unifolia</i> Michx	Green Adder's-Mouth
<i>Platanthera hookeri</i> (Torr.) Lindl.	Hooker's Orchid
<i>Pogonia ophioglossoides</i> (L.) Ker	Rose Pogonia
<i>Potentilla gracilis</i> Dougl.	Graceful Cinquefoil
<i>Primula egaliksensis</i> Wormsk.	Greenland Primrose
<i>Pyrola rotundifolia</i> L.	Common Wintergreen
<i>Rhynchospora alba</i> (L.) Vahl	White Beak Rush
<i>Rhynchospora capillacea</i> Torr.	Slender Beak Rush
<i>Solidago uliginosa</i> Nutt. (S.Purshii Porter)	Bog Goldenrod
<i>Utricularia cornuta</i> Michx.	Horned Bladderwort

\* rare in Canada

### Index Of Gull Lake Orchid Species

<i>Amerorchis rotundifolia</i> (Pursh) Huttén	Small Round-leaved Orchid
<i>Arethusa bulbosa</i> L.	Dragon's mouth
<i>Calopogon tuberosus</i> (L.) BSP. var. <i>tuberosus</i>	Grass Pink
<i>Calypso bulbosa</i> (L.) Oakes var. <i>americana</i> (R.Brown)	Luer Fairy or Venus Slipper
<i>Coeloglossum viride</i> (L.) Hartmann	Long-bracted Orchid
<i>Corallorhiza maculata</i> Raf.	Spotted Coralroot
<i>Corallorhiza striata</i> Lindl.	Striped Coralroot
<i>Corallorhiza trifida</i> Chat.	Northern or Early Coralroot
<i>Cypripedium acaule</i> Ait.	Moccasin Flower
<i>Cypripedium arietinum</i> R. Brown	Ram's Head Lady's-Slipper
<i>Cypripedium calceolus</i> L. var. <i>parviflorum</i> (Salisb.) Fern.	Small Yellow Lady's-Slipper
<i>Cypripedium calceolus</i> L. var. <i>pubescens</i> (Willd.) Correll	Large Yellow Lady's-Slipper
<i>Cypripedium reginae</i> (Walt)	Showy Lady's-Slipper
<i>Goodyera repens</i> (L.) R.Br. var. <i>ophiodes</i> Fern.	Lesser Rattlesnake Plantain



*Goodyera tessellata* Lodd.  
*Liparis loeselli* (L.) Richard  
*Listera cordata* (L.) R. Brown  
*Malaxis monophylla* L. var. *brachypoda*  
*Malaxis paludosa* (L.) Sw.  
*Malaxis unifolia* Michx.  
*Platanthera dilatata* (Pursh) Lindl. ex Beck  
*Platanthera hookeri* (Torr) Lindl.  
*Platanthera hyperborea* (L.) Lindl  
*Platanthera obtusata* (Pursh) Lindl(L) R. Br.  
*Platanthera orbiculata* Torr. Lindl  
*Pogonia ophioglossoides* (L.) Ker  
*Spiranthes lacera* Raf.  
*Spiranthes romanzoffiana* Cham.

Tesselated Rattlesnake Plantain  
 Loesel's Twayblade  
 Heart-leaved Twayblade  
 White Adder's-mouth  
 Bog Adder's-mouth  
 Green Adder's-mouth  
 Tall Leafy White Orchid  
 Hooker's Orchid  
 Tall Leafy Green Orchid  
 Blunt-leaf Orchid  
 Large Round-leaf Orchid  
 Rose Pogonia  
 Slender Ladies'-tresses  
 Hooded Ladies'-tresses

## Recommendations

Based on observations that we have made during this plant survey of this very special area, and in view of the very high concentration of rare plants, we recommend:

1. All plans to pump water from this bog to maintain water levels in the small, nearby resort lake, Gull Lake, of only 258 acres (105 ha), but with 300 summer cottage lots and 26 permanent residents, would further disturb the hydrology and would almost certainly have a negative effect on the rare native flora. Any such plans should be shelved until a detailed plant survey is completed.
2. Following this, any decisions about the area's future should be made only after consulting people who have extensive experience working with wetland ecosystems. The Brokenhead First Nation, because of their close proximity and traditional use of the area, should also be consulted regarding any future development plans.
3. Consideration should be given to having the fens set aside as a special park where further field studies could be done, the plants protected, and a

method of controlled access be set up. This rare and beautiful ecosystem should be preserved for future generations to enjoy.

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