



## Francis Hilb Preserve Fen Outing - July 14, 2018

Written by Sue & Bill Meades

On July 14, the Sault Naturalists visited the Francis Hilb Preserve on Goulais Mission Rd. The Preserve is a 9-acre fen donated to the Lake Superior Water Conservancy (LSWC) by the family of Francis Hilb. It was a foggy morning with temperatures around 22° Celsius when we set out from the Sault. As we descended Mile Hill into the Goulais River valley, the fog lifted and blue skies appeared, making it an almost perfect day for the outing. We were greeted at the entrance to the Preserve by Joanie and Gary McGuffin of LSWC who gave us a brief overview of the value of the Preserve for public outreach on the importance of wetlands in water conservation and nature education for youth.

A short walk on a wooded trail dominated by balsam fir, soon gave way to eastern white cedar as we reached the fen. The fen covers a shallow depression between old beach ridges of the Lake Superior shore. LSWC has constructed a sturdy boardwalk across the fen and hopes to extend it to the beach, once funding is secured.

Sue Meades lead the botanical excursion of the fen. She first described the ecological difference between bogs and fens. Bogs are wetlands that are generally nutrient-poor, receiving their nutrient input primarily from rainfall. Bog vegetation is dominated by ericaceous shrubs, some sedges and *Sphagnum* moss. Fens are nutrient-rich peats that receive nutrient input from both precipitation and seepage from surrounding mineral soils. The vegetation is dominated by a diverse sedge and herb flora, but *Sphagnum* moss is rare or absent. Peatlands in Ontario generally have shallow peats because the high temperatures and relatively long growing season encourage decomposition of peat, thereby impeding the accumulation of deep peats. Sue then helped participants identify the fen flora.

The botanical "stars of the day" were the bladderworts (*Utricularia cornuta* and *Utricularia intermedia*), whose yellow blossoms dominated the fen landscape. Through most of the year, these insectivorous plants have leaves hidden in the water and muck, going about their function of sucking insects into their tiny bladders and digesting them as a source of food. Other insectivorous plants included the sundews (*Drosera rotundifolia* and *Drosera intermedia*) and pitcher plant (*Sarracenia purpurea*).

Less abundant, but equally beautiful, were the orchids: rose pogonia (*Pogonia ophioglossoides*), grass pink (*Calopogon tuberosus*), ragged fringed orchid (*Platanthera lacera*) and clubspur orchid (*Platanthera clavellata*). Less conspicuous flowers included the large cranberry (*Vaccinium macrocarpon*) and white button (*Eriocaulon aquaticum*). Among the sedges, white beakrush (*Rhynchospora alba*) and smooth twigrush (*Cladium*

*mariscoides*) were flowering. Swamp rose (*Rosa palustris*) was the only shrub in flower, but there were many others in fruit or bud including: bog rosemary (*Andromeda polifolia*), black chokeberry (*Aronia melanocarpa*), leatherleaf (*Chamaedaphne calyculata*), shrubby cinquefoil (*Dasiphora fruticosa*), bog laurel (*Kalmia polifolia*), and sweet gale (*Myrica gale*).

By noon, we had identified the plants that could be observed near the boardwalk and with the temperature approaching 30° C, all agreed it was time for lunch. The flora of the fen is not static, almost on a weekly basis, some plants finish flowering while others come to bloom. To assist those who may wish to revisit the Preserve we have attached a checklist of the fen flora compiled by Sue for the LSWC.



Photo: Bill Meades: Hilb fen



Photo: Bill Meades: rose pogonia



Photo: Bill Meades: bladderworts



Photo: Bill Meades: large cranberry



Photo: Bill Meades: sundew



Photo: Sue Meades: ragged fringed orchid



Photo: Val Walker: The Group

For more photos: [Francis Hilb Preserve](#)

## Hilb Preserve – Cranberry fen, Goulais River. July 14, 2018

Sue and Bill Meades

### Trees

#### fen:

tamarack (*Larix laricina*)  
red maple (*Acer rubrum*) E  
white pine (*Pinus strobus*) E

black spruce (*Picea mariana*)  
sugar maple (*Acer saccharum*) E  
eastern white cedar (*Thuja occidentalis*) E, H

#### adjacent forest:

balsam fir (*Abies balsamea*)  
sugar maple (*Acer saccharum*)  
red maple (*Acer rubrum*)  
tamarack (*Larix laricina*)  
white pine (*Pinus strobus*)  
American mountain ash (*Sorbus americana*)  
eastern white cedar (*Thuja occidentalis*)

striped maple (*Acer pensylvanicum*)  
mountain maple (*Acer spicatum*)  
white birch (*Betula papyrifera*)  
black spruce (*Picea mariana*)  
red oak (*Quercus rubra*)  
showy mountain ash (*Sorbus decora*)

### Shrubs

#### fen:

speckled alder (*Alnus incana* subsp. *rugosa*) E  
black chokeberry (*Aronia melanocarpa*)  
shrubby cinquefoil (*Dasiphora fruticosa*)  
bog laurel (*Kalmia polifolia*)  
sweet gale (*Myrica gale*) H  
bristly dewberry (*Rubus hispidus*) H, E  
large pussywillow (*Salix discolor*) E  
meadowsweet (*Spiraea alba*) E  
small cranberry (*Vaccinium oxycoccos*)

bog rosemary (*Andromeda polifolia* var. *latifolia*)  
leatherleaf (*Chamaedaphne calyculata*)  
winterberry (*Ilex verticillata*) H  
ninebark (*Physocarpus opulifolius*) E  
swamp rose (*Rosa palustris*)  
dwarf raspberry (*Rubus pubescens*) H, E  
autumn willow (*Salix serissima*) E  
large cranberry (*Vaccinium macrocarpon*)

#### adjacent forest:

mountain alder (*Alnus alnobetula* subsp. *crispa*)  
serviceberry (*Amelanchier* sp.) - immature  
mountain holly (*Ilex mucronata*)  
choke cherry (*Prunus virginiana*)  
large pussywillow (*Salix discolor*)  
lowbush blueberry (*Vaccinium angustifolium*)

speckled alder (*Alnus incana* subsp. *rugosa*)  
beaked hazelnut (*Corylus cornuta*)  
mountain fly honeysuckle (*Lonicera canadensis*)  
dwarf raspberry (*Rubus pubescens*)  
Canada yew (*Taxus canadensis*)  
northern wild raisin (*Viburnum cassinoides*)

### Forbs

#### fen:

dragon's mouth (*Arethusa bulbosa*)  
marsh cinquefoil (*Comarum palustre*)  
spatulateleaf sundew (*Drosera intermedia*)  
white buttons (*Eriocaulon aquaticum*)  
beach pea (*Lathyrus japonicus*) B

grass pink (*Calopogon tuberosus*)  
goldthread (*Coptis trifolia*) H  
roundleaf sundew (*Drosera rotundifolia*)  
blueflag (*Iris versicolor*)  
brook lobelia (*Lobelia kalmii*)

water horehound (*Lycopus uniflorus*) E  
bog buckbean (*Menyanthes trifoliolata*) P  
bog aster (*Oclemena nemoralis*)  
ragged fringed orchid (*Platanthera lacera*)  
pink pyrola (*Pyrola asarifolia*) H, E  
bog goldenrod (*Solidago uliginosa*)  
tall meadowrue (*Thalictrum pubescens*)  
starflower (*Trientalis borealis*) H  
bladderwort (*Utricularia cornuta*)  
northern yellow-eyed grass (*Xyris montana*)

**Forbs, continued: adjacent forest:**

wild sarsaparilla (*Aralia nudicaulis*)  
bluebead lily (*Clintonia borealis*)  
bunchberry (*Cornus canadensis*)  
twinflower (*Linnaea borealis*)  
pink pyrola (*Pyrola asarifolia*) H, E  
threeleaf false Solomon's seal (*Maianthemum trifolium*)

swamp candles (*Lysimachia terrestris*)  
fragrant water lily (*Nymphaea odorata*) P  
clubspur orchid (*Platanthera clavellata*)  
rose pogonia (*Pogonia ophioglossoides*)  
pitcher plant (*Sarracenia purpurea*)  
hooded ladies'-tresses (*Spiranthes romanzoffiana*)  
marsh St. Johnswort (*Triadenum fraseri*)  
bog arrowgrass (*Triglochin maritima*)  
flatleaf bladderwort (*Utricularia intermedia*) P

spreading dogbane (*Apocynum androsaemifolium*)  
goldthread (*Coptis trifolia*)  
creeping snowberry (*Gaultheria hispidula*)  
wild lily-of-the-valley (*Maianthemum canadense*)  
starflower (*Trientalis borealis*)

## Graminoids

**fen:**

Canada bluejoint (*Calamagrostis canadensis*) E  
meagre sedge (*Carex exilis*)  
Michaux's sedge (*Carex michauxiana*) H  
pointed broom sedge (*Carex scoparia*) E  
smooth twigrush (*Cladium mariscoides*)  
white beakrush (*Rhynchospora alba*)  
threesquare bulrush (*Schoenoplectus pungens*) B  
alpine clubrush (*Trichophorum alpinum*)  
Buxbaum's sedge (*Carex buxbaumii*)  
woollyfruit sedge (*Carex lasiocarpa*)  
few-seeded sedge (*Carex oligosperma*)  
threefruit sedge (*Carex trisperma*)  
shorttail rush (*Juncus brevicaudatus*)  
narrowleaf cottongrass (*Eriophorum angustifolium*)  
darkgreen bulrush (*Scirpus atrovirens*) E  
deergass (*Trichophorum cespitosum*)

## Pteridophytes

**fen:**

marsh horsetail (*Equisetum palustre*)  
bristly clubmoss (*Lycopodium annotinum*) E  
bog clubmoss (*Lycopodiella inundata*)  
royal fern (*Osmunda regalis*)

**adjacent forest:**

bracken fern (*Pteridium aquilinum*)  
royal fern (*Osmunda regalis*)

**B** = beach margin; **E** = edges (fen borders); **H** = hummocks; **P** = fen pools

72 species in fen and margin

39 species in forest

14 species in common, on hummocks and along edges