<u>Native Orchid Conservation Inc.</u> Brokenhead Fen and Libau Bog Field Trip, July 9, 2016

The Brokenhead fen contains some different orchids than the June array. The Brokenhead Wetland Ecological Reserve, designated in the summer of 2005, was created to preserve and protect a calcareous fen, a wetland type considered rare in North America. The ecological reserve contains 23 species of provincially rare and uncommon plants as well as 28 of Manitoba's 36 native orchid species.

In the spring and summer of 2007 and 2008, NOCI collected seeds from native orchids (dragon's mouth [*Arethusa bulbosa*], lesser rattle-snake (*Goodyera repens*), heart-leaf twayblade (*Listera cordata* in both the Libau and Brokenhead reserves. This was done in accordance with a national program, led by Agriculture and AgriFood Canada, to preserve seeds of wild plants in support of Canada's international commitment at the United Nations Convention on Biodiversity held in Rio de Janeiro in 1992.

Situated in the Interlake Plain sub-region of the Manitoba Lowlands Natural Region, the Libau Bog Ecological Reserve preserves and protects a flat and poorly drained floating sedge bog and black spruce-tamarack bog, as well as the 11 species of orchids found there. This floating sedge bog is classified as a quaking bog, formed when a mat of vegetation grows over a shallow pond. The bog is adjacent to the Mars Hill Wildlife Management Area, an end-moraine ridge comprised of sand and gravel, with a few bog areas interspersed. The area is dominated by aspen forest and extensive stands of jack pine. White spruce, black spruce and balsam fir are also found here. Wildflowers grow in profusion in open areas and a few grassland areas with tall-grass prairie species have been identified. The WMA contains an important wintering area for deer, along with the occasional moose and black bear. Ruffed grouse, sharp-tailed grouse, spruce grouse, a variety of raptors, and numerous non-game birds breed and migrate through the area.

Brokenhead Fen species list

Orchids:

Small yellow lady's-slipper (*Cypripedium parviflorum* var. *makasin*)
Large Yellow Lady's-slipper (*Cypripedium parviflorum* var. *pubescens*)
Spotted coral-root (*Corallorhiza maculata*)
Striped coral-root (*Corallorhiza striata*)
Dragon's-mouth (*Arethusa bulbosa*)
Showy lady's-slipper (*Cypripedium reginae*)
Ram's-head lady's-slipper (*Cypripedium arietinum*)
Small round-leaved orchid (*Galearis rotundifolia*)
Early coral-root (*Corallorhiza trifida*) (seed pods)
Bog orchid (*Platanthera aquilonis or huronensis*)
White bog-orchid (*or bog candle*) (*Platanthera dilitata*)
Long-bracted orchid (*Dactylorhiza viridis*)
Hooker's rein-orchid (*P. obtusata*)
Grass pink (*Calopogon tuberosus*)

Heart-leaved twayblade (*Neottia cordata*) White adder's-mouth (*Malaxis monophyllos*)

Wildflowers and Shrubs: Fringed milkwort or gaywings (Polygala paucifolia) Bastard toadflax or pale commandra (Commandra umbellata) Golden corydalis (Corydalis aurea) Coltsfoot (*Petasites* spp.) Wild strawberry (Fragaria sp.) Goldthread (Coptis trifolia) Bishop's cap (*Mitella nuda*) Northern starflower (Trientalis borealis) Bunchberry (Cornus canadensis) Bog violet (Viola nephrophylla) Greenland primrose (Primula egaliksensis) Buck bean (*Menyanthes trifoliata*) Labrador tea (*Ledum groenlandicum*) Dewberry (*Rubus pubescens*) Common horsetail (*Equisetum arvense*) Wild sarsaparilla (*Aralia nudicaulis*) Shrubby cinquefoil (*Potentilla fruticosa*) Northern bedstraw (*Galium boreale*) Pitcher plant (Sarracenia purpura) Wild rose (*Rosa* spp.) Climbing bittersweet (*Celastrus scandens*) Sundew (Drosera spp.) Indian hemp (*Apocynum cannabinum*) Marsh marigold (*Caltha palustris*) Bicknell's geranium (Geranium bicknellii) Cotton-grass (*Eriophorum* spp.) Wild columbine (Aquilegia canadensis) Green wintergreen (Pyrola virens) Red-osier dogwood (Cornus stolonifera) Bog birch (*Betula grandulosa*) High bush-cranberry (Viburnum opulus) Boletus spp. mushroom Downy arrowwood (*Viburnum rafanesquianum*) Snakeroot (Sanicula marilandica) Philadelphia fleabane (Erigeron philadelphicus) Twinflower (*Linnaea borealis*) Creamy peavine (*Lathyrus ochroleucus*) Coral fungus (*Clavariaceae spp.*) Common butterwort (*Pinguicula vulgaris*) Bladder campion (*Silene cucubalus*) Seaside arrowgrass (Triglochin maritima) Mountain maple (*Acer spicatum*) Wild lily of the valley (*Maianthemum canadense*) Poison ivy (Rhus radicans) Large white ground-cherry (*Physalis grandiflora*) Bur oak (*Quercus macrocarpa*) Twisted stalk (*Streptopus amplexifolius*) Rock cress (Arabis spp.) Common bladderwort (*Utricularia vulgaris*) Bluebur (*Lappula squarrosa*) Oak fern (*Gymnocarpium dryopteris*) Blue-bead lily (*Clintonia borealis*) Common pink wintergreen (Pyrola asarifolia) One-flowered wintergreen (Moneses uniflora) Strawberry blight (Chenopodium capitatum) Small bog cranberry (Oxycoccus microcarpus) Spreading dogbane (Apocynum androsaemifolium) Sun-loving sedge (*Carex pensylvanica*) Fly honeysuckle (Lonicera villosa) Wild comfrey (*Cynoglossum virginianum*) Bush honeysuckle (*Diervilla lonicera*) Swamp fly honeysuckle (Lonicera oblongifolia) Twining honeysuckle (Lonicera dioica var. glaucescens)

Libau Bog species

Dragon's mouth orchid (Arethusa bulbosa)Grass-pink (Calopogon tuberosus)Ram's head lady's-slipper (Cypripedium arietinum)White adder's-mouth (Malaxis monophyllos)Small round-leaved orchid (Galearis rotundifolia)Round-leaved rein-orchid (Platanthera orbiculata)Slender ladies' tresses (Spiranthes lacera)Labrador tea (Ledum groenlandicum)Shrubby cinquefoil (Potentilla fruticosa)Labrador tea (Ledum groenlandicum)