

Mt. Nebo Field Trip – Native Orchid Conservation Inc.
June 15, 2013

This extraordinary big hill (elevation 1,383 feet) was named Mt. Nebo by early residents who compared it to the hill in Jericho mentioned in the Bible where Moses looked out and saw the Promised Land. It is made up of dark clay and bentonite clay and was formed 80-85 million years ago during the Cretaceous Period. It was at the bottom of the Western Interior Seaway, a huge inland sea that stretched north to the North Pole area and as far south as the Great Plains of the USA. Very large marine reptiles like mosasaurs and plesiosaurs lived there and when they died their bodies fell to the bottom of the sea. (These sea reptiles are contemporaneous with the dinosaurs in the Alberta Badlands and Montana – dinosaurs are mammals, western Manitoba's specimens are aquatic.) Gradually they got covered by layers of silt. During that time the volcanoes in Montana would periodically erupt and the volcanic ash would fall into the sea forming layers of mud and clay. When the ancient sea eventually dried up a big "mountain" was left. Then about 10,000 years ago the glaciers scraped away part of the top of the mountain to reveal the layers containing the fossils of this marine life. (The remnants of this glacier created Lake Agassiz, the remains of which now fill up the province's Interlake region.) Miners discovered the fossils in the 1930s when they began to mine the bentonite clay, and a huge mosasaur fossil was removed and put into the local museum in Miami which is still there today. In 1972 the Morden Museum (now called the Canadian Fossil Discovery Centre [www. http://www.discoverfossils.com/](http://www.discoverfossils.com/)) started to collect and study the fossils in this area in a major way and they have an excellent collection on display. Every year a farmer's machinery churns up the bones of yet another sea reptile. What is extraordinary and quite rare is the specimens are about 60 to 80% complete and *in situ*, making them easy to study, a pain to carry out (make a pedestal under them out of plaster and have a strong young person lug them out, usually walking uphill) and realistically reconstruct. In most palaeontology excavations, one is fortunate to find a few bones.

We recommend a visit to the CFDC and the little Miami Museum. You can also meet "Bruce" (bigger than a T-Rex!) and "Betsy" in Morden, and an almost complete skeleton that wraps around the room in Miami. All the specimens in these museums are from Manitoba and they deserve our patronage with these specimens that are worthy of UNESCO designation (and funding!) just as the world-famous Tyrrell Museum of Palaeontology in the Red Deer Valley is.

(Oh yeah, the Plant Species List)

Spotted Coralroot (*Corallorhiza maculata*)
Long-bracted orchid (*Coeloglossum viride* or *Dactylorhiza viridis*)
Small yellow lady's-slipper (*Cypripedium parviflorum* var *makasin*)
Common Yarrow (*Achillea millefolium*)
Heart-Leaved Arnica (*Arnica cordifolia*)
Fleabane (*Erigeron* sp.)
Common Goat's-Beard (*Tragopogon dubius*)
Hoary Puccoon (*Lithospermum canescens*)
Red and White Baneberry (*Actaea rubra*)
Tall Anemone (*Anemone riparia*)

Canada Columbine (*Aquilegia canadensis*)
 Small-Flowered Buttercup (*Ranunculus abortivus*)
 Veiny Meadow Rue (*Thalictrum venulosum*)
 Wild Parsley (*Musineon divaricatum* (S2) or
Musineon divaricatum var. *hookeri* (SNR)
 Snakeroot (*Sanicula marilandica*)
 Golden Alexanders (*Zizia aurea*)
 Red-Osier Dogwood (*Cornus stolonifera*)
 Evening-Primrose Small Enchanter's-Nightshade (*Circaea alpina*)
 Ginseng Wild Sarsaparilla (*Aralia nudicaulis*)
 Foxtail Barley (*Hordeum jubatum*)
 Snowberry (*Symphoricarpos albus*)
 Downy Arrowwood (*Viburnum rafinesquianum*)
 Prairie Onion (*Allium textile*)
 Wild Lily-of-the-Valley (*Maianthemum canadense*)
 Star-Flowered False Solomon's Seal (*Smilicina trifolia*)
 Nodding Trillium (*Trillium cernuum*)
 Madder Northern Bedstraw (*Galium boreale*)
 Mustard Stinkweed / Pennycress (*Thlaspi arvense*)
 Missouri Milk-Vetch (*Astragalus missouriensis*)
 Creamy Peavine (*Lathyrus ochroleucus*)
 American Vetch (*Vicia americana*)
 Tufted Vetch (*Vicia cracca*)
 Pink Sandwort (*Arenaria* sp.)
 Pink Field Mouse-Ear Chickweed (*Cerastium arvense*)
 Pink Long-Leaved Chickweed (*Stellaria longifolia*)
 Wild Strawberry (*Fragaria virginiana*)
 Wild Rose (*Rosa acicularis*)
 Trailing Raspberry / Dewberry (*Rubus pubescens*)
 Saxifrage Richardson's Alumroot (*Heuchera richardsonii*)
 Leafy Spurge (*Euphorbia esula*)



Spotted coralroot



Long-bracted orchid



False Solomon's seal



Yellow lady's-slippers



Missouri milk vetch



Wild onion



Mt. Nebo



Managing to get down without too much drama



"Bruce"