

Bio-Caching in the Bluff- July 19, 2014 Team Name:

*Wanderers go to D3. Continue with B-D3. At junction take branch that starts East (**not lake side**) to of Pot Lake Loop –not the lake side (OK to go further, with adults, but go back via same route). **Stewards** take the lakeside branch at the junction and go to the portage site (N) via O; then continue back to A doing the rest of the Pot Lake loop and the activities from M-B. Stewards do B last.*

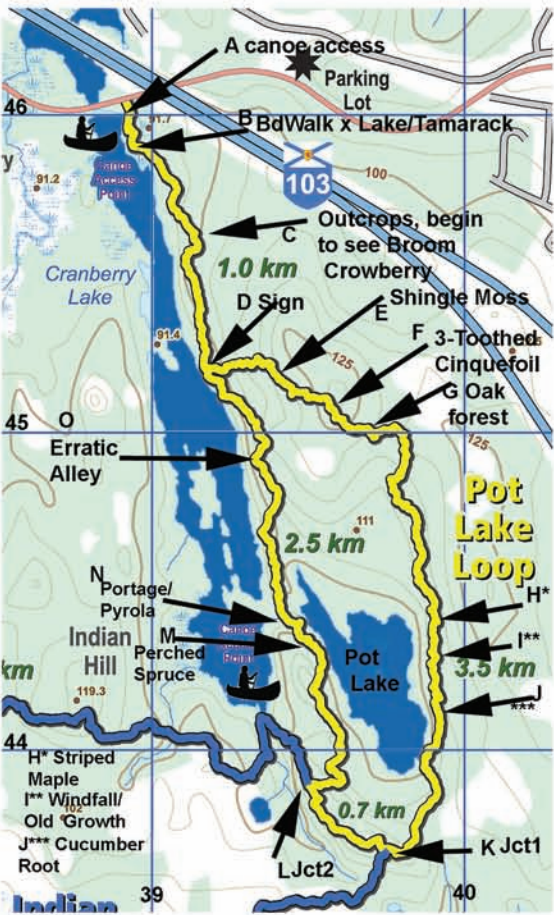
Site	Natural Feature	Activity/Checklist	Notes of Interest
A	Form teams/Orientation	Compass/Intro to Ecology of The Bluff Trail area	
B	<u>The boardwalk</u> where it comes close to the water's edge: Look for a Tamarack	Photo with Tamarack *What direction is it to cross the Lake?	Unlike other conifers (needle-bearing trees), Tamarack loses its needles in the fall (it is "deciduous", like maples). Used to make snowshoes, turpentine.
C	<u>Rock outcrops</u> , start to see <u>Broom Crowberry</u>	Photo of Broom Crowberry	Crowberry is a low evergreen shrub that can be used for health cures.
D1	<u>Pot Lake Loop Junction to Upper and Lower branches</u> ; Wet conifer forest (Spruce, Balsam Fir, Pine, Tamarack)	*What is Leave-No-Trace Principle #5?	Conifers are needle-bearing trees with cones. Notice the difference in the shapes and number of needles in a bundle for each.
D2	What is the direction of the nearest piece of land across Cranberry Lake. What colour is the water?	*Direction: *Water Colour:	A peninsula is a piece of land that has water on three sides.
D3	Sign the book!	Book signed	
E1	An area of mixed forest (deciduous & evergreen trees) Look for a Red Maple by the trail with <u>Shingle Moss</u> & Lungwort Lichen on the trunk	Photo x Shingle Moss Photo x Lungwort Lichen Coordinates of this site are:	Lungwort Lichen indicates good air quality. Shingle moss is a moss of old growth forest.
E2	Standing by the <u>Shingle Moss tree</u> , Can you see a very large conifer?	Is it White Pine OR Spruce OR fir OR Tamarack *(circle one)	Moss are small clumped plants in damp, shady areas that absorb water
F	Now on exposed rock face ("barrens"); Deciduous Forest towards lake. Look for <u>3-Toothed Cinquefoil</u> on barrens - white flowers & leaves with 3 teeth at ends.	Photo of the 3-Toothed Cinquefoil *What are the coordinates of the flowers?	The leaves of this plant are retained over winter but turn red. Also found in Greenland.
G	The trail goes through a deciduous forest dominated by Oak and Red Maple. Walk into the forest a little way –find <u>Witch Hazel</u> (Tall Shrub with asymmetric leaves)? Do you see <u>Stump-spouted Trees</u> (3-7 trunks in a clump)?	Photograph the witch hazel Photograph the stump-sprouted trees *What are the coordinates of the witch hazel?	Oil from Witch-hazel is used medicinally for sores, bruises, swelling and insect bites. Fires (also clearcutting) stimulate stump sprouting

What else do you see of interest? – Comment and photograph; Stewards give approx. coordinates.

Stewards: Complete activities in reverse order (O-A)

Site	Natural Feature	Activity/Checklist	Notes of Interest
H	There is a <u>Striped Maple</u> beside the trail, look for a maple with big leaves on a small sprout at the base of the tree	Photo x Striped Maple?	Only one tree of this type of maple has been observed on the Bluff Trail (all others are Red maple).
I	A big windfall (Red Spruce), created a Gap in the Acadian forest. As you walk further... You are in an area of <u>Old Growth Mixed Acadian Forest</u> . Some features: Some <u>big trees</u> (Pine, Spruce, Red Maple, Yellow Birch); <u>Gaps</u> created by windfalls, <u>Snags</u> (standing dead tree) and <u>Fallen dead trees</u> ; <u>Mossy forest floor</u>	Photo x <u>windfall</u> Photo x <u>moss covered forest floor</u> and boulders? Photo x <u>snag</u> (standing dead tree)? Photo x <u>fallen dead tree</u> Bearing of the windfall:	A windfall creates a gap in the Acadian forest. Snags and fallen dead trees provide important habitat (homes and food) for animals such as woodpeckers that feed on insects in the wood. Every part of the forest has a function.
J	Look for <u>Cucumber Root</u> . There is a cluster of them by a big erratic, one with developing fruits	Photo x Cucumber Root?	Cucumber has edible roots tasting like cucumber but please don't eat these ones!
K	Junction 1 (east) with Loop 2; A Trail Sign here. Look around. Can you see in the distance an area of exposed soil? Take a bearing on it. (Part of the Otter Lake Landfill)	Bearing of exposed area:	A junction is where a trail meets another trail. A landfill is where our garbage goes- right alongside nature. This is why we want to keep our garbage limited.
L	Junction 2 (west) with Loop 2.	Bearing on Bog pond, south end of Pot Lake & Highway at the top of Cranberry Lake. Plot lines on the map	A bog is a type of wetland... made of living & dead plant material such as sphagnum moss... that grows into and eventually covers an acidic pond.
M	Old Growth Area; Big Red Spruce perched on top of erratic	Photo of Red Spruce on Erratic	Old growth forest has trees 150+ yrs old, standing & fallen dead trees & "shade tolerant" species.
N	Trail crosses Portage between Pot Lake & Cranberry Lake.	-Photo of stream going from Pot Lake to Cranberry Lake. -What is the Direction of water flow?	Erratics are large boulders that have been left by melting glaciers
O	<u>Observe large "Erratic Alley"</u> along trail through deciduous forest	-Photo of a large erratic	

What else do you see of interest? – Comment and photograph & give approx. coordinates.



Tamarack
(wetland tree)

Deciduous
Conifer

On old deciduous
trees in moist forest



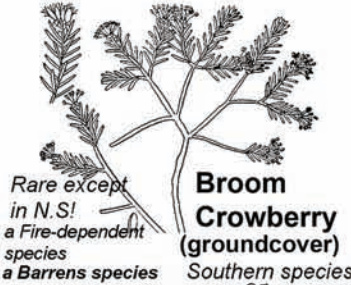
Site E Shingle
Moss

On deciduous
trees
**Lungwort
Lichen**

Indicator of
CLEAN AIR

Finger-like
texture, forms
MATS on soil,
logs, rocks
under trees
in moist locales

A LIVERWORT
(primitive
landplant)



**Broom
Crowberry**
(groundcover)

Rare except
in N.S!
a Fire-dependent
species
a Barrens species

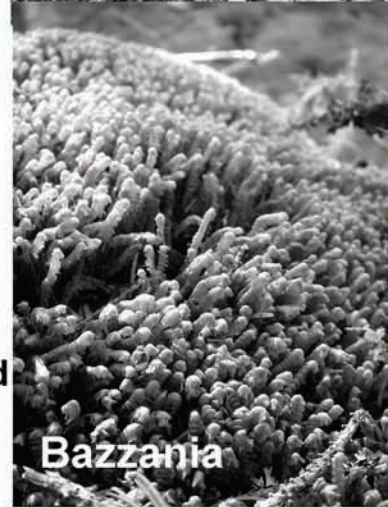
Southern species



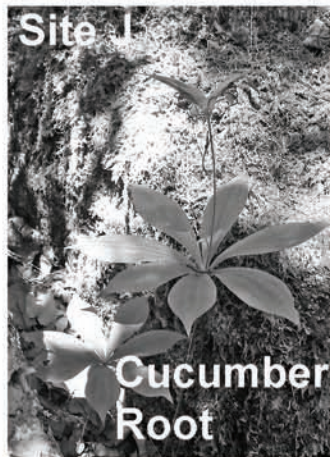
Site F

**3-Toothed
Cinquefoil**

a Barrens
species
Northern
species



Bazzania



Site I

**Cucumber
Root**



Fir

FLAT needles
(Xmas Trees)



**White
Pine**

5 long needles
in a bundle



Spruce

4-sided needles



Site H Striped
Maple



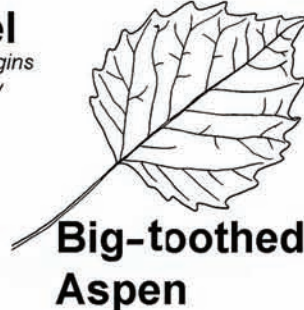
Site N
**One-Sided
Pyrola**

On ground, greenish
flowers



Witch-hazel

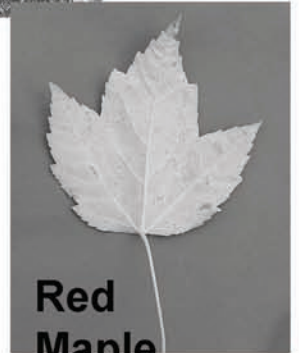
Wavy margins
Understory
Shrub



**Big-toothed
Aspen**

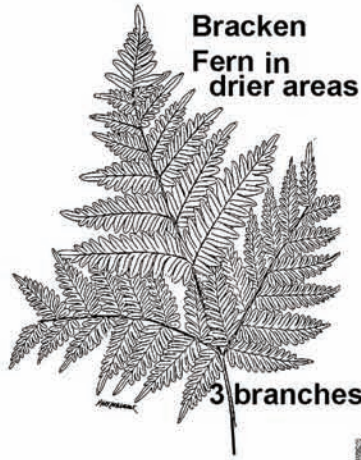


Oak



**Red
Maple**

COMMON FERNS



Polypody fern on boulders,
in moist forest understory



COMMON LICHENS



Reindeer Lichen on rock, soil



Starflower



COMMON HERBS OF FOREST FLOOR

Bluebead Lily



Witherod, shrub to
2+ m, moister areas



Mt Holly
by boardwalk,
wettish areas
to 3+ m



Huckleberry
Most common
shrub, 1-2 m



Lambkill
~1 m
some pink
flowers still
present

COMMON SHRUBS