Appendix 3

Identification Notes

Appendix 3.1
Key to Radforth Cover Classification System

(Radforth 1952)

Cover Type Class	Woodiness vs Non-Woodiness	Stature Approximate Height	Texture Where Required	Growth Habit	Example
A	woody	15 ft or over	———	tree form	Spruce, Maple Tamarack
B	woody	5 to 15 ft	———	young or dwarfed tree or bush	Spruce Tamarack Alder Birch, Maple
C	nonn-woody	2 to 5 ft	———	tall grass-like	Grasses Bushes, Ferns
B	woody	2 to 5 ft	———	tall shrub or very dwarfed tree	Alders Birch Labrador Tea
E	woody	up to 2 ft	———	low shrub	Blueberry Laurel Juniper
F	non-woody	up to 2 ft	———	mats, clumps, or patches sometimes touching	Sedges Grasses
G	non-woody	up to 2 ft.	———	single or loose association	Orchid Bake Apple Pitcher Plant Blue Flag
H	non-woody	up to 4 in.	leathery	mostly continuous mats	Lichens
I	non-woody	up to 4 in	soft or velvety	often continuous mats, sometimes in hummocks	Mosses

Appendix 3.2

Identification Characteristics of Peat Types and Organic Constituents

Sphagnum peat		**Carex peat**	
Poorly Humified	Humified	Poorly Humified	Humified
— light yellow to yellowish brown and spongy	— dark brown soapy and elastic makes hands dirty — no plant remains if pure	— pieces of stems, leaves etc visible	— light to dark grey, non-soapy and not elastic — tiny rootlets and seed
Bryales peat		**Shrub peat**	
Poorly Humified	Humified		
— copper brown and shiny — individual moss specimens distinguishable stems and leaves	non-soapy and not as elastic — no plant remains if pure	— reddish tiny, branching roots — stems and twigs	
Trichophorum spp		**Eriophorium** spp	
— brownish scales at base — roots round in diameter (not flat), have branches		— straight, hair-like fibres, reddish brown — root straight, very flat, light to dark brown, no branching	
Scheuchzeria		**Fern**	
— stem often curved at base, yellow to yellowish brown — leaf scars on stem close together — may give a shiny look to peat — hole in top of stem		— shiny flat brown stem pieces — crinkly hard woody branching roots, dark brown to brownish (may also be *S. cuspidatum*)	
Phragmites		**Equisetum**	
— rare large, broad pieces of stem and leaves — thick roots (compared to *Carex*) — brownish yellow to yellowish brown		— bluish black, shiny flat stems — coal black roots	
Mixed Peat Types		**Ooze**	
— do not over estimate the percentage of minor components in the peat type — if possible pick shrub pieces out of sample and compare to peat volume		— No mixtures — generally pure, fine textured material, non elastic to elastic, tan, brown or gray, may contain seeds, leaves and stems of *Carex* — may have very high silt content — usually found on bottom of deposit	

Appendix 3.3
Species Identification Notes

Eriophorum can be identified by its long, straight, reddish fibres or brown-black, flat, branchless roots. Some *Carex* species may have fibres, but they break down more easily and are not reddish. Mark down Er only when you are sure about identification.

Scheuchzeria seems to be minerotrophic in New Brunswick's climate, occurring together with *Carex* and minerotrophic *Sphagnum* species. In peat it can be identified positively by its slightly curved "underground" stems with ridge-like leaf scars. The roots look much like *Carex* roots, but are supposed to be coarser and have fewer shiny branches. Mark Sh in peat type columns only when you can make a positive identification.

Carex Species are minerotrophic. In humified peat they can be identified by "thin or shiny", light, curly rootlets with many branches. In poorly humified peat leaves are also found. They do not split into fibres as well as *Eriophorum* leaves and break easily to shorter pieces. If you are not positive about Er or Sh, call it C.

Appendix 3.4
Modified Von Post Humification Scale

H 1 Completely undecomposed peat which, when squeezed, releases almost clear water. Plant remains are easily identifiable. No amorphous material present.

H 2 Almost completly undecomposed peat which, when squeezed, releases clear or yellowish water. Plant remains still easily identifiable. No amorphous material present.

H 3 Very slightly decomposed peat which, when squeezed, releases muddy brown water, but does not pass between the fingers. Plant remains are still identifiable and no amorphous material present.

H 4 Slightly decomposed peat which, when squeezed releases very muddy dark water. No peat passes between the fingers but the plant remains are slightly pasty and have lost some of the identifiable features.

H 5 Moderately decomposed peat which, when squeezed, releases very muddy water while a very small amount of amorphous granular peat escapes between the fingers. The structure of plant remains is quite indistinct although it is still possible to recognize certain features. The residue is strongly pasty.

H 6 Moderately strongly decomposed peat with a very indistinct plant structure. When squeezed, about 1/3 of the peat escapes between the fingers. The residue is strongly pasty but shows the plant structure more distinctly than before squeezing.

H 7 Strongly decomposed peat. Contains significant amounts of amorphous material with very faintly recognizable plant structure. When squeezed, about 1/2 of the peat escapes between the fingers. The water, if any is released, is very dark and almost pasty.

H 8 Very strongly decomposed peat with a large quantity of amorphous material and very indistinct plant structure. When squeezed, about 2/3 of the peat escapes between the fingers and a small quantity of pasty water may be released. The plant material remaining consists of residues such as roots and fibres that resist decomposition.

H 9 Practically fully decomposed peat in which there is hardly any recognizable plant structure. When squeezed, almost all the peat escapes between the fingers as a fairly uniform paste.

H 10 Completely decomposed peat with no discernible plant structure. When squeezed, all the wet peat escapes between the fingers.

Appendix 3.5
Abbreviations for Bog Plant Species

Trees	
Black Spruce (*Picea mariana*)	Sb
Tamarack (*Larix larcena*)	Ta
White Pine (*Pinus strobus*)	Pw
Red Pine (*Pinus resinosa*)	Pr
Juniper (*Juniperus* spp.)	Ju
Birch (*Betula* spp.)	Bi
Alder (*Alnus rugosa*)	Al
Red Maple (*Acer rubrum*)	Mr
Aspen (*Populus* spp.)	At
Deadwood	Dw
Other	Ot
Shrubs	
Labrador Tea (*Ledum* spp.)	Lt
Inkberry (*Ilex glabra*)	Ib
Bog Rosemary (*Andromeda* spp.)	Rb
Laurel (*Kalmia* spp.)	Ka
Leather Leaf (*Chaaedaphne* spp.)	Ll
Rhodora (*Rhododendron* spp.)	RO
Cranberry (*Vaccinium* spp.)	Cb
Blueberry & Huckleberry (*Vaccinium* spp.)	Bh
Wild Raisin (*Viburnum* spp.)	Vi
Indian Pear (*Amelanchier* spp.)	Ip
Sweetfern (*Comptonia* peregrina)	Sf
Sweetgale (*Myrica gayle*)	Sg
Crowberry (*Empetrum nigrum*)	Cr
Bearberry (*Arctostaphylos* spp.)	Bb
Willow (*Salix* spp.)	Wi
Other	Os
Grass-like Plants	
Carex spp.	Cx
Eriophorum	Er
Eriophorum angustifolia	Ea
Eriophorum spissum	Es
Eriophorum virginicum	EV
Scirpus caespitosus	Tr
Phragmites	Pg
Scheuchzeria	Sh
Pitcher Plant (*Sarracenia purpurea*)	Pp
Sundew (*Drosera* spp.)	Sd
Skunk Cabbage (*Symplocarpus* spp.)	Sc
Orchids (Orchidaceae)	Or
Golden Rod (*Solidago* spp.)	Gr
Bake Apple (*Rubus* spp.)	Ba
Iris (Blue Flag) (*Iris* spp.)	Bf
Other	Og
Mosses	
Sphagnum	Sp
Bryales	Br
Other	Om
Ferns	Fr
Lichens	Li