

Durham E-Theses

Studies of boreal Peatland ecosystems in Britain and newfoundland

Pollett, Frederick C.

How to cite:

Pollett, Frederick C. (1972) *Studies of boreal Peatland ecosystems in Britain and newfoundland*, Durham theses, Durham University. Available at Durham E-Theses Online:
<http://etheses.dur.ac.uk/9255/>

Use policy

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a [link](#) is made to the metadata record in Durham E-Theses
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

Please consult the [full Durham E-Theses policy](#) for further details.

TABLE 2-1. VACCINIETO - CLADONIETUM BORYI ASSOCIATION (BLANKET BOG)

	DW	DW	DW	DW	DW	DW	DW	DW
Releve number	31	20	22	21	24	29	27	25
Altitude (M)	91	91	91	91	91	91	91	91
Cryptogams % cover	80	0	80	60	90	100	80	90
Phanerogams % cover	80	100	70	85	75	50	80	50
Number of species	10	6	11	18	19	11	13	16

Differential species of the association

<i>Vaccinium uliginosum</i> v-alpinum	2.1	3.3		2.1	1.1	2.1	2.2	2.1
<i>Vaccinium vitis-idaea</i> v-minus	1.1	3.3	1.1		2.2		2.2	1.1
<i>Empetrum nigrum</i>	3.3	3.3	3.3	3.2	3.3		3.3	2.2
<i>Kalmia angustifolia</i>	3.1	1.1	2.1	+	3.1	+		
<i>Rubus chamaemorus</i>	+	1.1		+	+		1.1	+
<i>Cladonia rangiferina</i>			3.3	1.2	2.1	1.2	3.3	2.2
<i>Cornicularia aculeata</i>	2.2				2.3			2.2
<i>Cladonia alpestris</i>			+		2.3	+		+
<i>Cladonia sylvatica</i>			+	2.2	1.3		1.3	1.1
<i>Cetraria islandica</i>			+	+	2.3		1.3	
<i>Stereocaulon paschale</i>				+	1.3	+	1.3	
<i>Rhacomitrium lanuginosum</i>			2.2		3.3	3.3	2.3	2.3
<i>Cladonia boryi</i>			1.1	+	2.3	1.2	1.3	+
<i>Ochrolechia frigida</i>				+	+	+	+	

Differential species of the variant

<i>Alectoria nigricans</i>							+	1.2	+
----------------------------	--	--	--	--	--	--	---	-----	---

Companion species

<i>Ledum groenlandicum</i>	1.1	1.1	+	+	+	1.1	2.1	2.1
<i>Cladonia mitis</i>				1.2		+		
<i>Chamaedaphne calyculata</i>	+			+				
<i>Polytrichum strictum</i>								+
<i>Scirpus cespitosus</i>			+					
<i>Drosera rotundifolia</i>				+				
<i>Picea mariana</i> (seedlings)					+			
<i>Dicranum spurium</i>				2.2				1.1
<i>Carex limosa</i>				1.1	1.2			2.1
<i>Cladonia coccifera</i>			+					
<i>Ptilidium ciliare</i>				1.2				
<i>Alectoria ochroleuca</i>								+
<i>Vaccinium angustifolium</i>	1.1			+	1.1			
<i>Kalmia polifolia</i>	+							



TABLE 2-4. SCIRPIETO - SPHAGNETUM PAPILLOSI ASSOCIATION (MESOTROPHIC BOG)

	DW	DW+	DW	#	#	#	#	69	#	#	DW	#	#	#	#	#
Releve number	23	2	3	73	100	110	81	22A	120	104	26	123	26	72	40	39
Altitude (M)	91	91	91	198	198	198	31	152	244	198	91	152	198	198	198	198
Cryptogams % cover	80	70	100	80	90	70	60	-	80	100	90	100	100	80	100	90
Phanerogams % cover	50	80	80	60	70	80	50	50	90	70	30	70	60	100	80	80
Number of species	12	19	12	10	15	14	17	11	18	15	14	23	19	16	15	19
<u>Subassociation</u>	TYPICUM						SPHAGNETOSUM									
<u>Differential species of the association</u>																
Sphagnum papillosum	4.4	2.3	2.3	4.4	2.2	2.3	2.2	1.3	4.4	2.3	4.4	2.3	3.3	4.4	3.3	
Calamagrostis inexpansa		1.2	2.1		3.1				+2			1.2	1.2	2.2	+	1.2
Carex exilis		+2					3.3					2.2		3.3	1.2	1.2
Solidago uliginosa		1.1	1.1				1.1					1.1		+	+	
Carex oligosperma						1.1			2.2	+			2.2	1.2		2.2
Mylia anomala	+								+					+		
Cephalozia connivens	+			+	+	+				+						+
Lepidozia reptans										+			1.2			1.2
Larix laricina (seedling)							r		r			+	r		+	
Sphagnum plumulosum							1.1			1.3		1.3	+	1.3	+	+
Sphagnum rubellum			2.3					1.3	2.3				4.4			
<u>Differential species of the subassociation</u>																
Sphagnum pulchrum						+	2.2	5.5	2.3	3.3	3.3	3.3	1.3	1.3	2.3	4.4
<u>Differential species of the variants</u>																
Sphagnum magellanicum												1.2	2.3		3.3	3.3
Polytrichum strictum													+			+
<u>Companion species</u>																
Scirpus cespitosus	3.1	2.2	3.1	2.2	4.4	4.4	+	+2	1.2	4.4	2.1	1.2	2.3		3.3	3.3
Chamaedaphne calyculata		+	+	+	+	1.1			2.1	1.1		1.2	1.1	1.2	+	1.1
Vaccinium oxycoccus	1.1		1.2		1.1	+	+		2.3	+			2.3	1.2	2.3	2.3
Sarracenia purpurea		+	+			+	+		+	+			+		+	+
Andromeda glaucophylla	+	1.1	1.1	+	+	1.1		+	1.2	+	+	1.1	1.1		1.1	1.1
Betula michauxii					1.1	1.1		+			1.1	2.1			+	
Myrica gale		+					1.1				1.1	+				
Lonicera villosa		+	1.1		1.1							1.2				
Carex livida					+	1.1						1.2		2.2		
Potentilla fruticosa		+												1.1		
Sanguisorba canadensis		1.1										1.1		+		
Carex lasiocarpa		1.2									+					
Carex limosa	+										+					
Ledum groenlandicum		+		+	+								+	1.1		
Cladonia sylvatica	+	+														
Drosera rotundifolia	1.1			+	+	+	+	+	+	+	+					+
Kalmia polifolia	+		+	+	+	+	+	+	+	+	+		+			+
Eriophorum spissum				2.2						1.1						
Sphagnum cuspidatum				1.3						2.3					1.3	
Sphagnum recurvum			+			1.3	+									
Cladopodiella fluitans															1.3	2.3
Aster novi-belgii		1.1	+									+		1.1		
Smilacina trifolia								1.1	2.2		1.1	+				
Calliergon stramineum				+		+						+				
Alnus rugosa												+				
Aster nemoralis									+			+		1.1		
Carex michauxiana		+2							+2			+				
Sphagnum imbricatum		3.3										3.3				
<u>Additional species</u>																
#81	Carex rostrata (+); Pyrus floribunda (1.1); Sphagnum molle (+)															
69-22A	Rhynchospora alba (1.2); Calypogeia trichomanis (+); Equisetum palustre (+)															
#123	Lycopodium inundatum (1.1)															
DW-2	Rhynchospora fusca (3.3)															
#12	Rosa nitida (+)															
DW-26	Rubus chamaemorus (1.1); Menyanthes trifoliata (1.1)															
DW-23	Cetraria islandica (+); Dicranum spurium (+)															
#120	Dicranum bergeri (+)															
#12	Aulacomnium palustre (1.2)															
#26	Picea mariana (+); Sphagnum flavicomans (3.3); Linnaea borealis (+)															
#100	Calamagrostis canadensis (3.3)															
#104	Juncus canadensis (+)															
#73	Vaccinium macrocarpon (2.3)															
#39	Eriophorum angustifolium (1.2); Cladonia alpicola (+)															

TABLE 2-5. CARICETUM EXILIS ASSOCIATION

Releve number	DW	69	#	69	#
Altitude (M)	16	19A	139	24	136
Cryptogams % cover	15	S.L.	300	S.L.	200
Phanerogams % cover	70	-	-	80	-
Number of species	50	50	70	60	60
	10	5	10	12	11
<u>Differential species of the association</u>					
<i>Carex exilis</i>	1.2	1.2	3.2	2.2	2.2
<u>Differential species of the variants</u>					
<i>Betula michauxii</i>	+	+			
<i>Drosera intermedia</i>	2.2	+	1.1		
<i>Epilobium palustre</i>			1.1	+	
<u>Companion species</u>					
<i>Sphagnum pulchrum</i>		+		+	
<i>Sphagnum pylaesii</i>			+	3.3	
<i>Carex disperma</i>	2.2			1.1	+
<i>Carex lasiocarpa</i>	1.2			+	
<i>Carex limosa</i>	3.2			2.1	
<i>Chamaedaphne calyculata</i>	1.1		+		+
<i>Sphagnum cuspidatum</i>	2.2		+	1.1	
<i>Andromeda glaucophylla</i>		+		+	2.1
<u>Additional species</u>					
#136	<i>Calamagrostis inexpansa</i> (1.2); <i>Carex aquatilis</i> (+); <i>Clintonia borealis</i> (+); <i>Betula pumila</i> (1.1); <i>Vaccinium uliginosum</i> (2.1); <i>Thalictrum polygamum</i> (1.1); <i>Scirpus cespitosus</i> (3.3)				
DW-16	<i>Myrica gale</i> (+); <i>Sphagnum recurvum</i> (4.4)				
69-24	<i>Cladopodiella fluitans</i> (1.1); <i>Menyanthes trifoliata</i> (1.1); <i>Drosera rotundifolia</i> (+)				
#139	<i>Lycopodium inundatum</i> (+); <i>Myrica gale</i> (1.1); <i>Ledum groenlandicum</i> (+); <i>Carex nigra</i> (+).				

TABLE 2-6. CARICETUM LIVIDAE ASSOCIATION

Relève number	69 4B	69 15	# 112	DW	69 28	# 15B	# 135	# 97	# 121
Altitude (M)	15	15	198	91	15	185	46	152	
Cryptogams % cover	5	100	10	100	90	-	-	-	
Phanerogams % cover	30	90	80	50	70	70	60	60	
Number of species	8	12	10	15	14	7	13	6	

Differential species
of the association

Carex livida	1.2	2.2	1.1	2.1	2.2	+	2.2	1.1
Carex lasiocarpa	1.2	3.2		2.1	2.2	+		1.3

Differential species
of the variants

Betula michauxii			+	+	+			
Ledum groenlandicum			+	+	1.2			

Companion species

Chamaedaphne calyculata		1.1	1.1	+	2.1		3.2	+
Calamagrostis inexpansa		1.2			1.2			
Carex exilis				+	1.2			
Scirpus cespitosus			3.2	+				
Myrica gale	1.1	4.1	1.1	+		3.3	2.1	2.2
Solidago uliginosa				+	1.1			
Potentilla fruticosa	+					2.1	1.1	
Sanguisorba canadensis					1.1		+	
Andromeda glaucophylla	+		+				+	
Rosa nitida		1.1					+	
Smilacina trifolia		2.1			2.2			
Menyanthes trifoliata	2.1			+				
Alnus rugosa		2.1			2.1		+	
Equisetum fluviatile		1.1			2.1			
Epilobium palustre		1.1		1.1				+
Carex nigra				2.1			2.2	

Additional Species

- 69-15B Sphagnum magellanicum (+); Juniperus horizontalis (4.4)
 #97 Carex rostrata (+); Betula pumila (1.1); Lonicera villosa (1.1);
 Viburnum cassinoides (+)
 69-4B Drosera intermedia (1.1); Scorpidium scorpioides (2.1)
 #112 Carex oligosperma (1.1); Kalmia angustifolia (1.1); Sphagnum
 plumulosum (1.3)
 #78 Sphagnum recurvum (5.5)
 #121 Thalictrum polygamum (+)
 69-15 Eriophorum angustifolium (1.2); Iris versicolor (1.1)
 #135 Cirsium muticum (1.1); Deschampsia caespitosa var glauca (2.2);
 Dulichium arundinaceum (+)

TABLE 2-7. CARICIETO - DROSERETUM INTERMEDIÆ ASSOCIATION

Releve number	#	69	#	69
Altitude (M)	83	118	94	6
Cryptogams % cover	30	S.L.	15	137
Phanerogams % cover	-	-	-	75
Number of species	30	60	70	90
	9	6	10	9
<u>Differential species of the association</u>				
<i>Carex livida</i>	+	2.2	1.1	+
<i>Carex exilis</i>	2.2	+	2.2	1.2
<i>Betula michauxii</i>		+	+	+
<i>Drosera intermedia</i>	3.3	2.2	2.2	1.1
<i>Pyrus floribunda</i>	+		+	+
<i>Aster nemoralis</i>	+	+	1.1	
<i>Carex lasiocarpa</i>	1.1		2.2	
<i>Myrica gale</i>	1.1		+	+
<i>Rhynchospora fusca</i>			2.2	1.2
<i>Potentilla fruticosa</i>	+	+		
<u>Additional species</u>				
#94	<i>Aster novi-belgii</i> (+)			
#83	<i>Eriophorum angustifolium</i> (+)			
69-6	<i>Sphagnum cuspidatum</i> (2.3); <i>Utricularia cornuta</i> (+)			

TABLE 2-8. LYCOPODIETO - SPHAGNETUM PYLAESII ASSOCIATION

	#	#	#	#
Releve number	129	127	9	43
Altitude (M)	91	91	198	198
Cryptogams % cover	80	30	100	70
Phanerogams % cover	20	20	80	80
Number of species	10	10	23	17

Differential species
of the association

<i>Sphagnum pylaesii</i>	2.3	2.2	2.3	4.4
<i>Lycopodium inundatum</i>	2.1		+	+
<i>Drosera intermedia</i>	1.1	1.1	+	+
<i>Rhynchospora alba</i>	1.2		3.3	1.2
<i>Betula michauxii</i>	+	+	+	+
<i>Calamagrostis inexpansa</i>	+		1.2	1.2

Differential species
of the variants

<i>Carex lasiocarpa</i>	1.2	2.2		
<i>Rhynchospora fusca</i>			1.2	4.4
<i>Schizaea pusilla</i>			1.1	+
<i>Cephalozia connivens</i>			1.2	+
<i>Kalmia polifolia</i>			+	+
<i>Sarracenia purpurea</i>			+	+
<i>Vaccinium oxycoccus</i>			2.2	1.2
<i>Carex oligosperma</i>			1.2	+

Companion species

<i>Chamaedaphne calyculata</i>		+	+	
<i>Andromeda glaucophylla</i>	1.1	1.1	2.1	+
<i>Scirpus cespitosus</i>		1.2	4.4	+
<i>Sphagnum papillosum</i>	+		3.3	
<i>Sphagnum cuspidatum</i>		+	4.4	

Additional species

#9	<i>Cladopodiella fluitans</i> (+); <i>Lonicera villosa</i> (+); <i>Pyrus floribunda</i> (+); <i>Aster nemoralis</i> (+); <i>Campyllum stellatum</i> (2.2)
#43	<i>Solidago uliginosa</i> (+); <i>Carex exilis</i> (1.2)
#127	<i>Drosera rotundifolia</i> (+); <i>Epilobium palustre</i> (1.1)
#129	<i>Sphagnum pulchrum</i> (+)

TABLE 2-9. ERIOCAULETUM SEPTANGULARE ASSOCIATION

	69	#	#	#	69	#	69
Releve number	11A	80	91	118	21A	134A	19
Altitude (M)	152	30	15	152	152	305	S.L.
Cryptogams % cover	20	60	-	70	-	-	-
Phanerogams % cover	40	50	40	80	30	30	20
Number of species	6	6	6	6	3	2	3

Differential species
of the association

<i>Eriocaulon septangulare</i>	+	3.2	3.2	1.2	2.2	1.2	3.1
<i>Utricularia intermedia</i>	+	+	+	+	1.1		+

Differential species
of the variants

<i>Menyanthes trifoliata</i>		1.1	+				
<i>Carex lasiocarpa</i>	1.2	1.2	3.2				
<i>Chara foetida</i>	4.4	+					
<i>Spongella lacustris</i>						2.2	1.1

Companion species

<i>Drosera intermedia</i>		1.2			1.2		
<i>Nuphar microphyllum</i>	+		1.1	1.2			

Additional species

- #91 *Drepanocladus* sp. (1.3)
- 69/11A *Sparganium fluctans* (+)
- #118 *Utricularia purpurea* (1.2); *Dulichium arundinaceum* (+);
Sparganium americanum (2.2)

TABLE 2-10. BETULETO - CAMPYLIETUM STELLATAE ASSOCIATION
(WETTER SITES OF EUTROPHIC FEN)

	#	#	#	#
Releve number	92	125	132	133
Altitude (M)	15	91	304	304
Cryptogams % cover	85	100	100	80
Phanerogams % cover	75	90	80	90
Number of species	10	17	22	21
<u>Differential species of the association</u>				
<i>Campylium stellatum</i>	1.3	1.2	1.2	+
<i>Betula michauxii</i>	+	1.1	+	1.1
<i>Calliergon stramineum</i>		+	+	+
<i>Carex livida</i>	2.2			1.2
<i>Carex exilis</i>	2.2		+	2.2
<i>Carex lasiocarpa</i>	2.2		+	2.2
<u>Companion species</u>				
<i>Andromeda glaucophylla</i>		+		
<i>Calamagrostis inexpansa</i>		+	1.1	+
<i>Solidago uliginosa</i>		1.1	1.1	1.1
<i>Aster nemoralis</i>			+	+
<i>Myrica gale</i>	1.1	1.1	2.1	2.1
<i>Sanguisorba canadensis</i>		1.1	1.1	1.1
<i>Chamaedaphne calyculata</i>		1.1	1.1	1.1
<i>Drosera rotundifolia</i>	+		+	+
<i>Vaccinium oxycoccus</i>				+
<i>Sarracenia purpurea</i>		+	+	+
<i>Rosa nitida</i>			+	1.2
<i>Scirpus cespitosus</i>		2.2		1.2
<i>Pyrus floribunda</i>			+	+
<i>Sphagnum recurvum</i>		1.3	4.4	
<i>Carex oligosperma</i>		1.2	3.1	
<i>Larix laricina</i> (seedlings)		1.1	+	
<i>Betula pumila</i>			+	1.1
<i>Sphagnum papillosum</i>		2.3	+	
<u>Additional species</u>				
#132	<i>Sphagnum cuspidatum</i> (+); <i>Smilacina trifoliata</i> (+)			
#133	<i>Aulacomnium palustre</i> (+); <i>Sphagnum pulchrum</i> (3.3)			
#92	<i>Rhynchosperma alba</i> (1.2); <i>Scorpidium scorpioides</i> (4.4); <i>Epilobium palustre</i> (+)			
#125	<i>Carex buxbaumii</i> (+); <i>Sphagnum rubellum</i> (2.3)			

TABLE 2-11. VEGETATION SYNTHESIS TABLE OF THE ASSOCIATION
 POTENTILLETO - CAMPYLLETUM STELLATAE CHARACTERIZING
 THE MAIN PORTION OF EUTROPHIC FENS

	69	69	69	69	69	#	69	#	69	#	#	#	#	#	#	#	#	#	#	#	69	
Releve number	11C	3	4	7	12A	84	94	96	9	82	106	72	55	54	47	6	11	13	71	98	4A	
Altitude (M)	152	198	15	45	15	30	15	15	15	30	200	200	100	200	200	200	200	200	200	200	45	15
Cryptogams % cover	20	90	95	90	40	-	70	-	70	90	80	90	100	80	80	-	70	80	80	80	90	50
Phanerogams % cover	80	80	80	80	70	60	70	60	90	90	70	95	90	90	90	100	80	80	80	80	80	90
Number of species	20	22	19	19	19	14	15	14	24	21	21	34	34	33	30	18	23	20	17	13	15	
<u>Subassociation</u>	SPHAGNETOSUM																			— TYPICUM —		
<u>Differential species of the association</u>																						
Campyllum stellatum	3.3	2.3	2.4	4.4	3.3	4.4	2.3	4.4	2.3	2.3	+	2.3	4.4	+	1.3	4.4		1.3	3.3	4.4	4.4	
Potentilla fruticosa	1.1	2.1	3.3	1.1	1.1	1.1	+	+	1.1	1.1			+	1.1	1.1	1.1	1.1		+	+	1.1	
Selaginella selaginoides	1.1	+		1.1	1.1						1.1	1.1	+	+		+				1.1	1.1	
Muhlenbergia glomerata			1.2	1.2		1.2	1.2		+	+											1.1	
Thalictrum polygamum	+		+					+	1.1	1.1			+		+	+	+	+	+			
Scirpus cespitosus	4.2	3.2	+2	4.2	2.2	2.2	4.2	2.2	4.4	1.2	3.2	3.3	3.3	4.2	3.3	5.5	4.6	4.4	4.4	4.2	2.3	
Aulacomnium palustre		1.3	+						+	1.3			+	+	2.3		+					
Smilacina trifolia	+			+					+			+	+	+							1.1	1.1
<u>Differential species of the subassociation</u>																						
Sphagnum warnstorffianum		1.3	2.3			1.3			1.3	3.3	2.3	1.3	1.2	+	1.3	+	3.3	3.3				
Pellia fabroniana		+			+		+			1.1	+	+	+	+								
Senecio pauperculus				1.1	1.2			+				+										
Rosa nitida			+					+	+													
Rubus acaulis	+					+			1.1	+		+										
<u>Differential species of the variants</u>																						
Rhinanthus crista-galli													+	+		1.1	1.1	1.1				
Juniperus horizontalis	+											2.1	3.1	+	+	+	+	+	+			
Pyrus floribunda												+	+	+	+	1.1	+	+	+			
Sphagnum papillosum												2.3	1.2	1.2	1.3			3.3	3.3			
Fissidens adianthoides	3.3																					
Aster nemoralis							+	+	+	+	+	+										
<u>Differential species of subvariants</u>																						
Eriophorum viridi-carinatum											1.1	1.2	1.2		1.2							
Sphagnum strictum												+	2.2	1.2								
Sieglingia decumbens												3.3	1.2	2.3								
Pleurozium schreberi													+	+	+							
Viola cucullata	+				+								+	+	+							
Lonicera villosa													+	+	1.1							
Thalictrum alpinum											2.1		2.1	2.1	+							
Eriophorum virginicum											+	+	+									
Drepanocladus intermedius												+	+									
Carex flava																		1.2	+	+		
Calliergon stramineum		1.3																+	+	+		
Betula michauxii	1.1				3.1													+	+	+		
<u>Companion species</u>																						
Andromeda glaucophylla	1.1			+	+	+		1.1			+	+	+	1.1	+	+	+	+	+	+	+	
Carex livida	2.1	2.2	1.2	1.2	1.1	3.2	+	2.2	1.1	3.3	+	1.2	+				2.2	3.3	2.1	2.2	2.2	
Carex exilis		1.2	2.2			2.2	2.2	3.3	2.2	3.3		2.2	1.2	+	1.2					1.2	3.3	
Carex lasiocarpa				1.2		1.2		2.2												4.4	+	
Calamagrostis inexpectata			+	1.2							1.1	1.2	1.2	1.2	1.2	1.1			2.1		+	
Solidago uliginosa	+	1.1	+		1.1		+	+	+	1.1	+	+	+	+	+	1.1	+	+	+	+	+	
Aster novi-belgii	1.1	+				+	1.1	1.1	+	+			1.1	+						+	+	
Myrica gale	+	1.1	2.3	1.1		1.1	1.1	+	2.1											+	1.1	
Sanguisorba canadensis	+	+	+	+	+															+	+	
Chamaedaphne calyculata		1.1	1.1	+		+	+		1.1	+	+	+	+	+	+	+	+	+	+	+	+	
Drosera rotundifolia								1.1			+	+	+	+	+	+	+	+	+	+	+	
Vaccinium oxycoccus	+	2.3	2.3		1.1		+			+	1.1	1.3		+	1.3	+	+	+	+	+	+	
Sarracenia purpurea	+	+	+	+	+	+	+															
Ledum groenlandicum													2.3									
Cladonia sylvatica																						
Sphagnum rubellum		4.4	2.3																			
Kalmia polifolia																						
Sphagnum recurvum			+		1.2				1.3						1.2	1.3					+	
Alnus rugosa									1.1	+									1.1		+	
Carex oligosperma					+										1.1			1.2				
Larix laricina (seedlings)		r																		r		
Tomenthypnum nitens		3.3														1.3						
Sphagnum pulchrum											2.3		2.3							+		
Carex rostrata												1.2										
Juncus canadensis							+	1.2														
Eriophorum angustifolium	+				1.1				2.2		1.1											
Carex michauxiana																					+	
Drepanocladus revolvens																				r		
Betula pumila																						
Cirsium muticum		1.1																				
Dicranum scoparium															+	1.3	2.3					
<u>Additional species</u>																						
#72	Cladonia rangiferina (+); Schizaea pusilla (+); Pyrola rotundifolia (+); Lycopodium annotinum (+); Viola pallens (+)																					
69,4A	Rhynchospora alba (1.1)																					
69,12A	Amelanchier bartramiana (+)																					
#98	Mnium affine (2.2)																					
#47	Triglochin palustris (+); Sphagnum cuspidatum (+)																					
#11	Sphagnum subsecundum (1.3); Sphagnum teres (+)																					
#54	Ochrolechia frigida (+); Dicranum spurium (+); Juniperus communis (+)																					

TABLE 2-12. VEGETATION SYNTHESIS TABLE OF THE ASSOCIATION
 MYRICIETO - CARICETUM ROSTRATAE (EUTROPHIC MARSH)

	DW	#	#	#	#	#	#	#	#	#	#	#
Releve number	14	78	99	115	116	87	85	86	X4	X6	137	138
Altitude (M)	152	200	45	213	213	15	15	15	183	183	183	183
Cryptogams % cover	70	50	90	70	70	10	10	10	95	100	90	80
Phanerogams % cover	0	50	0		80	60	60	60	-	-	-	-
Number of species	7	10	8	5	8	6	7	7	13	17	16	10
<u>Differential species of the association</u>												
Carex rostrata	3.1	2.1	3.3	4.4	2.2	3.2	2.2	2.2	2.2	4.4	1.2	3.3
Myrica gale		2.2	2.2		+	3.2	3.2	3.3	+	+	1.1	1.1
<u>Differential species of the variants</u>												
Glyceria canadensis							1.2	+	+	+		
Carex aquatilis										+	3.3	3.3
Carex limosa	1.1											
Solidago rugosa									+	+		
Calamagrostis canadensis									1.1	1.1		
Scirpus atrovirens									3.2	+		
Aster puniceus									1.1	2.1		
Rhynchospora alba									2.2	3.2		
<u>Companion species</u>												
Chamaedaphne calyculata		2.2				1.2	1.2	1.1			1.1	+
Carex lasiocarpa	3.1					1.2	2.2	2.2				
Andromeda glaucophylla					3.2							
Alnus rugosa						1.2	+		+			+
Betula pumila					1.2						+	
Drosera intermedia	+									+		
Lonicera villosa			+		+							
Sanguisorba canadensis			1.1									1.1
Vaccinium oxycoccus										+	+	
Thalictrum polygamum			1.1	1.2								
Pyrus floribunda			+									+
Smilacina trifolia				+							+	
Spiraea latifolia									+	1.1		
Equisetum fluviatile	1.1								1.2	2.1		
Iris versicolor			+								+	
Sphagnum recurvum		5.5									2.3	
<u>Additional species</u>												
#138	Aster nemoralis (1.2); Osmunda regalis, Carex flava (+)											
#78	Sphagnum papillosum (2.3); Sphagnum magellanicum (1.3); Kalmia polifolia (1.1); Aulacomnium palustre (1.1); Calliergon stramineum (+); Sphagnum teres (2.3)											
#116	Calamagrostis inexpansa (+); Scirpus cespitosus (+.2); Solidago uliginosa (+)											
DW-14	Carex livida (+); Menyanthes trifoliata (+)											
#86	Potentilla fruticosa (+)											
#85	Carex oligosperma (3.3)											
#X-6	Drosera rotundifolia (+); Sphagnum cuspidatum (4.4); Cladopodiella fluitans (2.3); Larix laricina (+)											
#115	Amelanchier bartramiana (+); Viola pallens (+); Geum rivale (1.2)											
#87	Sphagnum palustre (+)											
#99	Rhytidiadelphus triquetrus (+)											
#X-4	Carex canescens (1.2); Salix sp. (+)											
#137	Clintonia borealis (+); Vaccinium uliginosum (2.1); Ledum groenlandicum (+); Vaccinium macrocarpon (1.3); Viburnum cassinoides (+); Carex disperma (+.2); Geum rivale (+)											

TABLE 2-13. RHYNCHOSPORA ALBA - MYRICA GALE COMMUNITY
FOUND IN PARTICULAR WET EUTROPHIC SITES

	#	#	#
Releve number	141	X-5	140
Altitude (M)	183	183	183
Cryptogams % cover	5	-	15
Phanerogams % cover	80	95	80
Number of species	12	13	4

Differential species
of the community

Rhynchospora alba	2.2	1.2	4.4
Myrica gale	1.1	+	+
Carex flava	+	1.2	
Carex interior	2.2	1.2	
Scirpus hudsonianus		3.3	
Carex paupercula		1.2	
Bryum pseudotriquetrum		2.2	
Solidago rugosa		+	

Additional species

#141	Betula michauxii (+); Scirpus atrovirens; Drosera intermedia (2.1); Vaccinium oxycoccus (+); Sphagnum cuspidatum (1.3); Andromeda glaucophylla (+); Sphagnum flavicomans (+); Philonotis fontana (1.1)
#140	Carex lasiocarpa (1.1); Riccardia palmata (+)
#X-5	Calamagrostis inexpansa (+); Aster novi-belgii (+); Alnus rugosa (+); Carex michauxiana (3.3); Carex buxbaumii (+)

TABLE 3-1. WET OMBROTROPHIC BOG

Releve number	31	39	40	41	1	2	3	17	44	19	21	4	38	10	70	81	82	83	69	11	9	8
% tree cover	10	-	5	15	-	10	10	-	-	-	15	10	15	15	-	15	-	5	-	-	20	-
No. of species	9	7	9	9	15	13	11	10	14	14	15	11	13	11	10	11	11	10	11	10	16	11

Differential species of Ombrotrophic bog units

<i>Drosera rotundifolia</i>	1.1	+	1.1	1.1	+	+	+	1.1	1.1	1.1	1.1	+	+			+	+	1.1	+			
<i>Andromeda polifolia</i>	+	1.1	+	2.1	1.1	+		1.1	2.1	+	1.1	+	2.1	1.1	+	+	+	1.1	+			+
<i>Cephalozia connivens</i>	+		+		2.3		2.2			+		2.1	+			1.1			+			
<i>Sphagnum magellanicum</i>		1.1	1.1	4.4	4.4	2.2	3.3	4.4	3.2	2.2	+	+	1.1	4.4	3.2	2.1	4.4	5.5	3.3	1.1	1.1	1.2

Differential species of variants

<i>Sphagnum cuspidatum</i>	4.4	4.4	3.2	+																		
<i>Narthecium ossifragum</i>	+		+	2.1	3.3	+	3.3	1.1	1.1	1.1	2.2											
<i>Sphagnum rubellum</i>											3.3	3.3	5.5									
<i>Empetrum nigrum</i>																				+		
<i>Pleurozium schreberi</i>											1.1									+	1.1	1.2

Companion species

<i>Sphagnum recurvum</i>	1.1	+	2.2	+	4.4	2.2	2.2	2.2	+	3.3	3.3	+	+	2.2	1.2	1.1	+	+	1.1		+	1.2
<i>Eriophorum angustifolium</i>	1.1	1.1	1.1	+	2.2	2.2	2.2	+	2.1	2.2	3.1	2.2	3.1	4.2	3.1	2.1	3.1	2.1	3.1	3.2	2.1	3.2
<i>Oxycoccus palustris</i>	2.1	+	2.2	3.2	3.3	+	3.3	3.3	1.1	3.3	3.2	3.3	3.2	2.2	1.3	3.3	3.3	2.3	3.2	1.1	3.2	3.3
<i>Mylia anomala</i>				1.1	4.4	+		+	1.2	+	+		1.1	+	+		1.1		+	+	3.2	+
<i>Aulacomnium palustre</i>					3.3	1.2	3.3	1.2	+	1.1	1.1	+	+	+	1.1	2.2	+	+	1.1	4.4	4.4	4.4
<i>Erica tetralix</i>					1.1	+	3.3	3.2	+	1.1	2.2	+	+	1.1	+	3.1				+	1.2	1.1
<i>Pinus sylvestris</i>					k	1.1	k		k	+	k		1.1	k	+	k	+	k	+		k	
<i>Parmelia physodes</i>					+	+	+		+	+	+		+		+		+		+		+	
<i>Eriophorum vaginatum</i>											+		+			1.1		+	+	+		
<i>Calluna vulgaris</i>					+	+							+				1.1					2.2
<i>Polytrichum strictum</i>					+																	3.3
<i>Odontoschisma sphagni</i>														+								2.2
<i>Calypogeia sphagnicola</i>									+									+				+
<i>Sphagnum palustre</i>																2.3						+

Additional species

- #4 *Rhynchospora alba* (+)
- #31 *Sphagnum tenellum* (+)
- #44 *Hypnum cupressiforme* (+)

TABLE 3-2. OMBROTROPHIC HUMMOCKS AND FORESTED AREA

Releve number	46	45	18	6	42	7	20	13	27	73	12	37	15	25	72	84	5	22	23	24	35	36	71
% tree cover	15	5	10	10	-	5	20	10	-	40	20	40	25	10	60	10	50	70	55	60	60	55	30
No. of species	8	17	11	17	15	16	14	12	12	12	14	9	12	8	10	6	16	12	11	11	13	14	17

HUMMOCKS

FOREST

Differential species
of hummock and forest units

Eriophorum vaginatum	1.1	+	1.2	4.2	2.2	3.2	2.2	3.3	3.2	2.2	3.3	1.1	1.1	+	1.2	+	3.2	3.3	2.3	3.3	2.2	1.1	+
Sphagnum palustre		1.1	1.1	1.2	+	+	1.1			1.2	2.1				3.3		3.3	1.1	+	2.1	3.2	+	3.3
Calluna vulgaris	+	1.1	2.3	2.2	1.1	4.4	3.3	3.3	3.3	2.1	2.2	+	1.2	1.1	+		2.2	+		+		+	+
Pleurozium schreberi		1.1	3.3	2.2	+	2.2	1.1	3.3	2.2	5.5	1.3	+	2.2	4.4	1.2		3.3	1.1	3.3	2.3	+	+	1.3
Dicranum sco parium				+				1.2			+		+				+						

Differential species
of variants

Cladonia impexa	1.1	1.3	4.4	3.3	4.4	4.4	1.3	4.4									+					+	
Vaccinium myrtillus			+		+						4.4	4.4	4.4				1.3	2.3	2.3	2.2	+	1.1	+
Betula pubescens							+				+	+				+	+	+	+	+	+	+	+
Polytrichum commune				+					4.4	5.5													

Differential species
of subvariant

Sphagnum magellanicum		+		1.2	+																		
Sphagnum rubellum		+	2.2	2.2	1.2	1.2																	
Empetrum nigrum			+	+	1.1	+																	
Calypogeia sphagnicola			2.2		1.2	+																	

Companion species

Erica tetralix	1.1	1.1	+	1.2		1.2	2.2	2.2	1.2	2.1	2.2	1.1	1.1		2.2	+	4.4	4.4	4.4	3.4	4.4	3.3	3.3
Aulacomnium palustre	4.4	3.3	4.4	2.2	+			2.2	+	1.2	1.1	+	2.2	1.1	1.2				+		1.1	+	2.2
Sphagnum recurvum						2.2	2.3		1.1	+	2.2		3.3	+	3.3	+	4.4	1.1	2.2		1.2	3.3	4.4
Eriophorum angustifolium	3.3	1.1		2.2	2.1	+	1.1	+	+	1.2	+				2.2	1.1	+	1.1	1.1	+	+	1.1	2.1
Oxycoccus palustris	+	3.3		2.2	2.2		2.2		+	2.1	2.2				+		2.2	2.2	2.2	2.2	3.3	+	3.3
Mylia anomala	1.1	+	+	1.2	2.2	+		+	+		+	+		+			+				+		
Pinus sylvestris		+	k	1.1	k	+	1.1	1.1	k	+	k	+	+				+	+	+	+	+	+	+
Parmelia physodes		+	+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+
Polytrichum strictum	2.1	+											+										
Odontoschisma sphagni		+							+														

Additional species

- #45 Cephalozia connivens (+)
 #6 Hypnum cupressiforme (1.2)
 #18 Cladonia arbuscula (1.1)
 #5 Dicranum bonjeani (1.2)
 #71 Carex rostrata (1.1); Drosera rotundifolia (+); Calypogeia trichomanis (+); C. fissa (+)

TABLE 3-3. EDGE

Releve number	33	34	62	63	64	65	66	67
% tree cover	65	70	50	50	25	20	75	75
No. of species	9	11	13	11	10	14	9	10
<u>Differential species of edge units</u>								
Narthecium ossifragum	1.1	2.2						
Carex nigra	+	2.2	1.1	+	+			
Lophocolea bidentata			+	+				
Anthoxanthum odoratum			+	1.1	1.1			
Dryopteris spinulosa			+	+	+			
Erica cinerea				1.1	2.1			
Digitalis purpurea						1.1	+	1.1
Epilobium angustifolium						2.1	+	2.1
Deschampsia flexuosa				3.3		3.2	2.2	3.2
<u>Companion species</u>								
Sphagnum recurvum	2.2	3.3	4.4	2.2	3.3	2.2	4.4	+
Eriophorum angustifolium	2.1	1.1	1.2	1.1			+	
Oxycoccus palustris	3.3	+	1.1	+	+	1.1		
Aulacomnium palustre	1.1	+						
Erica tetralix	3.3	1.1	1.1		+		2.1	1.1
Betula pubescens	+	+		+		+	+	+
Pinus sylvestris	+	+	+	+	+	+	+	+
Farmelia physodes	+	+	+	+	+	+	+	+
Sorbus aucuparia						+	+	
Hedera helix			1.1		+			1.1
Rumex acetosa				+		+		
Calluna vulgaris		+						1.2
<u>Additional species</u>								
#33	Polytrichum strictum (+); Calypogeia trichomanis (+)							
#34	Dactylorhiza fuchsii (+)							
#62	Andromeda polifolia (+); Galium saxatile							
#65	Molinia caerulea (3.2); Hypnum cupressiforme (+); Quercus robur (+); Dryopteris dilatata(1.1); Cerastium arvense							
#66	Eriophorum vaginatum (1.2)							
#67	Ilex aquifolium (1.1)							

TABLE 3-4. MARGINAL FEN

Releve number	76	52	51	50	53	59	58	56	57	60	61	54	75
% tree cover	40	55	40	75	60	80	50	25	55	55	70	50	45
No. of species	4	7	14	11	10	5	8	9	9	19	13	15	8
<u>Differential species of marginal fen</u>													
Carex nigra		+	1.2	3.2								1.1	
Mnium hornum			2.1	2.1	+		+		2.2	2.1	+	+	1.1
Agrostis tenuis		1.1	3.2	1.1	1.1		1.1	2.1	1.1	1.2	2.2	2.1	
Sphagnum palustre var squarrosum		1.1	2.2	2.2		+	1.1	1.1	1.1	1.2	3.2		1.1
Plagiothecium undulatum		+	+	+	+							1.1	2.2
<u>Differential species of variants</u>													
Juncus bulbosus	2.2	4.4	+		+	2.2							
Cardamine amara	2.2		1.1	1.1	1.1	1.1							
Carex curta	1.2		1.2		1.2	1.1							
Carex echinata			1.1	1.1	1.1								
Holcus lanatus		1.1					+	1.1	2.1	4.2	+	1.1	
Polytrichum commune												3.3	4.4
<u>Differential species of subvariant</u>													
Potentilla erecta										1.1	1.1	2.1	
Juncus effusus										1.2	1.2	+	
Molinia caerulea											4.2	1.1	
<u>Companion species</u>													
Sphagnum recurvum	+	2.2	+	3.3	3.3	+	2.2	2.3	2.3	+	3.3	+	2.2
Pinus sylvestris			+					+		+	+	+	
Parmelia physodes			+	+				+		+	+	+	
Betula pubescens				+				+	+				
Vaccinium myrtillus									+	+			
Quercus robur										+	+		
Sorbus aucuparia			+	+	+		+	+		+			
Pseudo sclero-podium purum									+			2.2	
Polystichum setiferum							+						+
Listera cordata			+										+
Dactylorhiza fuchsii				+								+	
<u>Additional species</u>													
#50	Ranunculus flammula (1.1)												
#51	Rubus fruticosus (+)												
#53	Acer pseudoplatanus (+)												
#57	Caprea sp. (+); Luzula multiflora (1.1); Sphagnum palustre (3.3); Hypnum cupressiforme (+)												
#60	Epilobium obscura (2.1); Aulacomnium palustre (1.1); Erica tetralix (+); Eriophorum vaginatum (1.2); Calluna vulgaris (1.1); Eurhynchium striatum (1.3); Stellaria alsine (1.1)												
#75	Pleurozium schreberi (1.2)												
#58	Oxycoccus palustris (+)												
#61	Dryopteris dilatata(+); Holcus mollis (2.3)												
#54	Lophocolea bidentata(+)												

TABLE 3-5. SOLIGENOUS FEN

Releve number	32	30	47	76	77	78	79
% tree cover	15	25	20	35	55	40	40
No. of species	7	8	8	8	11	11	16
<i>Sphagnum recurvum</i>	4.4	1.1	3.3		3.3	1.2	2.3
<i>Eriophorum angustifolium</i>	1.1	+	+	3.2	1.2	1.2	2.2
<i>Erica tetralix</i>	1.1	+	1.1				
<i>Salix cf. aurita</i>	3.1	2.1	2.1		+		
<i>Carex rostrata</i>	1.1	+	+				
<i>Oxycoccus palustris</i>	2.1						
<i>Carex curta</i>	+						
<i>Acrocladium stramineum</i>		2.2					
<i>Pellia epiphylla</i>		1.1					
<i>Riccardia pinguis</i>		1.1					
<i>Sphagnum cuspidatum</i>			+				
<i>Juncus effusus</i>			1.1			+	
<i>Potamogeton polygonifolius</i>			+		1.2		
<i>Rhytidadelphus squarrosus</i>				+	1.2	3.3	2.3
<i>Acrocladium cuspidatum</i>				2.2	1.2		
<i>Calypogeia trichomanis</i>				1.2			
<i>Nartheccium ossifragum</i>				1.1			
<i>Eurhynchium sp.</i>				3.3			
<i>Sphagnum subsecundum</i>				2.2			
<i>Holcus lanatus</i>					1.2	1.2	1.2
<i>Cardamine amara</i>					+	2.2	2.2
<i>Sphagnum plumulosum</i>					+		
<i>Betula sp.</i>					1.2		
<i>Lemna minor</i>					+		
<i>Pyrola cf. minor</i>						+	2.1
<i>Agrostis stolonifera</i>						1.2	1.2
<i>Sphagnum fimbriatum</i>						3.3	3.3
<i>Acrocladium giganteum</i>						3.3	3.3
<i>Sphagnum palustre</i>						1.2	1.2
<i>Aulacomnium palustre</i>						1.2	
<i>Montia fontana</i>							1.3
<i>Salix cinerea</i>							+
<i>Poa pratensis</i>							1.2
<i>Ranunculus flammula</i>							2.2
<i>Hypnum cupressiforme var respinatum</i>							2.3
<i>Vaccinium myrtillus</i>							+

TABLE 3-6. OPEN POOLS

Releve number	48	49	80
% tree cover	10	25	30
No. of species	3	3	2
Potamogeton polygonifolius	3.1		
Potamogeton natans	2.2	4.4	3.3
Callitriche intermedia	+	1.1	1.1
Geum rivale		+	

TABLE 3-8. PHYSICAL AND CHEMICAL PROPERTIES OF PEAT SOILS UNDERLYING PLANT COMMUNITIES ON MOORTHWAITE MOSS; AVAILABLE NUTRIENTS IN BRACKETS (ALL NUTRIENTS GIVEN IN MG/G)

A: Wet Ombrotrophic Bog and Hummocks

Peat Type	Decomposition*	%H O**	BD***	pH	N	P	K	Ca	Mg	Mn	Zn	Fe	Na
Sph-Se	3.5-5.0	95.4	0.05	3.70	7.45(0.132)	0.53(0.026)	0.35(0.44)	3.00(1.60)	0.540(0.300)	0.050(0.016)	0.030(0.004)	1.62	0.32(0.18)
Sph-Se	4.0-7.5	93.8	0.08	3.45	8.55(0.092)	0.53(0.027)	0.34(0.36)	1.75(1.50)	0.450(0.400)	0.025(0.016)	0.022(0.003)	1.00	0.32(0.18)
Se-Sph	2.5-3.5	93.9	0.08	3.70	5.65(0.122)	0.58(0.048)	0.43(0.30)	2.75(1.40)	0.680(0.460)	0.075(0.022)	0.025(0.010)	0.99	0.33(0.19)
Sph	2.5-3.5	96.4	0.04	3.65	5.55(0.070)	0.58(0.013)	0.63(1.26)	2.25(1.00)	0.590(0.450)	0.090(0.026)	0.027(0.009)	0.87	0.87(0.20)
Sph	3.5-5	95.9	0.05	3.48	5.20(0.060)	0.30(0.016)	0.24(0.38)	1.75(1.30)	0.700(0.490)	0.060(0.024)	0.025(0.011)	1.05	0.26(0.22)
Sph	3.0-3.5	92.3	0.05	3.78	6.00(0.053)	0.33(0.015)	- (0.48)	2.75(2.00)	0.670(0.480)	0.025(0.010)	0.025(0.007)	0.60	0.24(0.08)

B: Dry Knoll

W-Se(+Sand) ¹	6.0-7.5	64.7	0.52	3.30	6.80(0.050)	0.38(0.006)	- (0.12)	0.50(0.50)	0.300(0.160)	0.005(0.003)	0.017(0.001)	1.40	0.17(0.07)
W-Sph ²	6.0-8.0	88.8	0.14	2.92	12.30(0.050)	0.43(0.018)	- (0.17)	1.00(0.30)	0.580(0.360)	0.005(0.003)	0.020(0.001)	1.40	0.27(0.09)
W(+Sand) ²	8+	80.2	0.31	2.90	11.35(0.071)	0.35(0.015)	- (0.24)	0.50(0.20)	0.780(0.140)	0.010(0.000)	0.020(0.001)	0.77	0.23(0.08)
W(+Sand) ³	7.5-9.0	67.9	0.51	2.90	10.45(0.055)	0.38(0.017)	- (0.18)	0.75(0.30)	0.205(0.150)	0.015(0.000)	0.010(0.001)	0.95	0.21(0.09)

C: Ombrotrophic Forest

W-Sph	9+	89.7	0.16	3.15	13.80(0.094)	0.60(0.026)	- (0.35)	1.00(0.60)	0.540(0.340)	0.015(0.004)	0.025(0.003)	1.27	0.38(0.14)
W-Sph	4.0-8.0	90.0	0.14	3.21	13.25(0.089)	0.60(0.023)	- (1.02)	0.75(0.50)	0.450(0.260)	0.010(0.002)	0.017(0.004)	1.06	0.35(0.15)
W-Se	5.0-7.0	81.3	0.28	3.15	11.40(0.082)	0.48(0.024)	- (0.36)	2.50(1.10)	0.500(0.270)	0.010(0.002)	0.010(0.002)	1.27	0.25(0.13)
W-Sph	5.0-7.0	90.4	0.18	3.20	11.95(0.087)	0.50(0.022)	- (0.50)	2.00(1.00)	0.520(0.280)	0.020(0.002)	0.017(0.002)	1.31	0.36(0.13)
Sph-W	3.5-6.0	94.5	0.10	3.29	8.75(0.078)	0.58(0.021)	- (0.49)	1.25(0.50)	0.610(0.380)	0.025(0.004)	0.020(0.005)	1.77	0.33(0.17)
Se-W	7.5-9.0	77.1	0.29	3.31	12.45(0.087)	0.75(0.039)	- (0.57)	2.50(0.80)	0.395(0.260)	0.020(0.002)	0.060(0.006)	1.55	0.30(0.12)

D: Marginal Fen

W-Se	3.0-5.0	95.8	0.04	4.10	11.35(0.129)	0.58(0.025)	- (0.55)	6.25(5.80)	0.720(0.510)	0.025(0.010)	0.055(0.009)	1.40	0.32(0.18)
W-Se	7.0-8.0	94.1	0.11	4.30	13.15(0.144)	0.70(0.029)	- (0.47)	7.50(5.10)	0.740(0.520)	0.045(0.016)	0.057(0.004)	1.30	0.30(0.18)
Sph-Se	3.5-5.0	95.4	0.07	4.10	7.40(0.076)	0.50(0.015)	- (0.40)	4.50(3.40)	0.860(0.600)	0.035(0.014)	0.057(0.004)	0.94	0.38(0.30)

E: Soligenous Fen

Sph-W	3.0-4.5	92.9	0.09	4.72	7.90(0.064)	0.33(0.016)	- (1.16)	8.25(6.50)	0.670(0.520)	0.025(0.012)	0.020(0.012)	0.81	0.26(0.15)
Se-Sph	2.5-3.5	94.9	0.06	5.10	10.25(0.062)	0.63(0.024)	- (1.18)	9.00(7.00)	0.410(0.360)	0.25(0.016)	0.030(0.006)	0.75	0.24(0.17)

¹Vaccinium myrtillus knoll

²Calluna vulgaris knoll

³Erica cinerea knoll

*According to von Post scale

**% wet weight

***g/cc (wet volume)

TABLE 3-9. VOLUMETRIC NUTRIENT CONTENTS OF PEAT SOILS ON MOORTHWAITE MOSS;
AVAILABLE CONTENTS IN BRACKETS. ALL VALUES ARE g/m² FOR A
DEPTH OF 30 cm.

A: Wet Ombrotrophic Bog and Hummocks

N	P	K	Ca	Mg	Mn	Zn	Fe	Na
111.9(1.98)	8.10(0.3)	8.1(8.4)	45.0(24.0)	8.1(1.5)	0.9(0.3)	0.6(0.06)	24.3	4.2(2.7)
205.2(2.22)	12.6(0.6)	10.2(7.2)	42.5(36.0)	10.8(4.5)	0.3(0.3)	0.6(0.18)	24.0	8.1(4.2)
135.6(2.94)	13.8(1.2)	7.5(15.0)	66.2(33.0)	16.2(9.6)	1.8(0.6)	0.6(0.24)	23.7	7.8(4.5)
66.6(0.84)	6.9(0.6)	3.6(5.7)	27.0(12.0)	7.2(5.4)	1.2(0.3)	0.3(0.09)	10.5	4.2(2.4)
78.0(0.90)	4.5(0.3)	6.6(7.2)	24.0(21.0)	10.5(7.5)	0.9(0.3)	0.3(0.15)	15.6	3.9(3.6)
90.0(0.81)	5.1(0.3)	- (4.5)	42.0(30.0)	10.2(7.2)	0.3(0.3)	0.3(0.12)	9.0	3.6(1.2)

B: Dry Knoll

1060.8(7.80)	59.4(0.9)	- (18.6)	78.0(78.0)	46.8(24.9)	0.6(0.3)	2.4(0.15)	218.4	26.4(10.8)
516.6(2.10)	18.0(0.9)	- (7.2)	42.0(12.0)	24.3(15.0)	0.21(0.12)	0.6(0.03)	58.8	11.1(3.6)
1055.4(6.60)	32.4(1.2)	- (22.2)	45.0(18.0)	72.6(12.9)	0.9(-)	1.8(0.09)	71.7	21.3(7.5)
1598.7(8.40)	58.2(2.4)	- (27.6)	93.0(45.0)	31.5(23.1)	2.1(-)	1.5(0.15)	145.2	31.5(13.8)

C: Ombrotrophic Forest

662.4(4.50)	28.8(1.2)	- (16.8)	48.0(30.0)	25.8(16.2)	0.6(0.18)	1.2(0.15)	60.9	18.3(6.6)
556.5(3.75)	25.2(0.9)	- (42.9)	36.0(21.0)	18.9(8.7)	0.3(0.09)	0.6(0.18)	47.4	14.7(6.3)
957.6(6.90)	40.2(2.1)	- (30.3)	210.0(91.0)	42.0(22.5)	0.9(0.18)	0.9(0.15)	106.8	21.0(10.8)
645.3(4.71)	27.0(1.2)	- (27.0)	108.0(54.0)	28.2(15.0)	1.2(0.12)	0.9(0.09)	70.8	19.5(6.9)
262.5(2.40)	17.4(0.6)	- (14.7)	39.0(15.0)	18.3(11.4)	0.7(0.12)	0.6(0.15)	53.1	9.9(5.4)
1083.3(5.22)	65.4(0.3)	- (49.5)	219.0(69.0)	34.5(22.5)	1.8(0.18)	5.1(0.51)	134.7	26.1(10.5)

D: Marginal Fen

136.2(1.56)	6.9(0.3)	- (6.6)	75.0(69.0)	8.7(6.0)	0.3(0.12)	0.6(0.12)	16.8	3.9(2.1)
438.0(4.74)	22.1(0.9)	- (15.6)	249.0(168.0)	24.3(17.1)	1.5(0.54)	1.8(0.12)	42.9	9.9(6.0)
155.4(1.59)	10.5(0.3)	- (8.4)	96.0(72.0)	18.0(12.6)	0.6(0.30)	0.6(0.09)	19.5	8.1(6.9)

E: Soligenous Fen

213.3(1.74)	8.1(0.3)	- (31.2)	222.0(186.0)	18.5(13.5)	0.6(0.33)	0.6(0.30)	21.6	6.9(4.2)
184.5(1.11)	11.4(0.3)	- (21.3)	162.0(126.0)	7.5(6.6)	0.3(0.3)	0.6(0.12)	13.5	4.2(3.0)

TABLE 3-10. THE ABOVEGROUND DRY MATTER CONTENT OF SPECIES AND TOTAL LIVE BIOMASS
WITHIN VEGETATION UNITS ON MOORTHWAITE MOSS EXPRESSED IN g/m².
PERCENTAGE OF SPECIES TO WHOLE ABOVEGROUND BIOMASS GIVEN IN BRACKETS.

Species		A	B	C	D	E	F	G
Sphagnum cuspidatum	green	42.9(7.57)						
Sphagnum cuspidatum	non-green	119.6(21.10)						
Cephalozia connivens	whole	11.2(1.98)						
Drosera rotundifolia	whole	7.3(1.29)						
Narthecium ossifragum	live leaves	68.9(12.16)						
Narthecium ossifragum	dead leaves	2.6(0.46)						
Narthecium ossifragum	dead fruiting	16.0(2.82)						
Sphagnum magellanicum	green	10.5(1.85)	37.9(6.07)	45.7(6.44)				
Sphagnum magellanicum	non-green	30.2(5.33)	68.2(10.93)	73.4(10.35)				
Andromeda polifolia	whole	2.7(0.48)	6.2(0.99)	10.7(1.51)				
Sphagnum rubellum	green			2.2(0.31)				
Sphagnum rubellum	non-green			4.0(0.56)				
Sphagnum palustre	green				160.8(18.91)			0.7(0.13)
Sphagnum palustre	non-green				450.4(52.96)			1.2(0.23)
Eriophorum vaginatum	live leaves					23.4(1.68)	10.2(1.34)	6.2(1.17)
Eriophorum vaginatum	dead leaves					59.2(4.25)	33.7(4.44)	2.0(0.38)
Eriophorum vaginatum	fruit					3.4(0.24)	1.1(0.14)	
Calluna vulgaris	live leaves					224.0(16.07)		
Calluna vulgaris	stem & branch			33.3(4.69)		690.7(49.55)		
Calluna vulgaris	fruit					24.3(1.74)		
Calluna vulgaris	standing dead					80.9(5.80)		
Cladonia impexa	whole					239.6(17.19)		
Hypnum cupressiforme	whole					3.4(0.24)		
Pleurozium schreberi	green		14.0(2.24)			38.7(2.78)	84.7(11.16)	1.7(0.32)
Pleurozium schreberi	non-green		34.2(5.47)					2.0(0.38)
Vaccinium myrtillus	live leaves						114.6(15.11)	
Vaccinium myrtillus	stem & branch					1.7(0.12)	473.8(62.5)	
Vaccinium myrtillus	fruit						5.1(0.67)	
Vaccinium myrtillus	att. dead							
Erica tetralix	new growth	16.0(2.82)			1.3(0.15)		22.3(2.94)	49.7(9.40)
Erica tetralix	old growth				6.1(0.72)			702.3(76.13)
Erica tetralix	att. dead							17.9(3.38)
Vaccinium oxycoccus	live leaves	11.3(1.99)	16.4(2.62)	13.3(1.87)	9.1(1.07)			2.1(0.40)
Vaccinium oxycoccus	live stems	59.1(10.43)	89.9(14.39)	70.5(9.94)	56.3(6.62)			17.0(3.22)
Vaccinium oxycoccus	fruit		1.8(0.29)					
Eriophorum angustifolium	live leaves	20.1(3.55)	21.6(3.46)	7.7(1.08)	10.7(1.26)			2.7(0.51)
Eriophorum angustifolium	dead leaves	2.1(0.37)	2.4(0.38)		0.8(0.09)			
Eriophorum angustifolium	standing dead		28.7(4.59)	16.7(2.35)	19.2(2.26)			
Eriophorum angustifolium	fruit							
Sphagnum recurvum	green	46.2(8.15)	53.7(8.60)	3.1(0.44)	25.8(3.03)			6.9(1.31)
Sphagnum recurvum	non-green	100.1(17.66)	140.6(22.51)	7.2(1.01)	73.8(8.68)			12.3(2.33)
Aulacomnium palustre	green		35.7(5.74)	109.9(15.50)	9.4(1.11)		3.2(0.42)	1.1(0.21)
Aulacomnium palustre	non-green		72.4(11.59)	183.2(25.83)	26.7(3.14)		9.9(1.31)	2.6(0.49)
Mylia anomala	whole		1.0(0.11)	128.3(18.09)		4.7(0.34)		
Total standing crop:		566.8	624.7	709.2	850.4	1394.0	758.6	528.4
Total live estimate:		548.2	593.6	692.5	830.4	1254.0	714.9	508.3
Total root biomass: (Table 3-11)		591.3	268.3	423.6	234.0	1860.1	1320.6	853.0
Total biomass		1139.5	861.9	1116.1	1064.4	3114.1	2045.5	1361.3

TABLE 3-11. BELOW-GROUND CONTENT OF DRY MATTER (g/m²) CONTRIBUTED BY SPECIES WITHIN VEGETATION UNITS ON MOORTHWAITE MOSS. PERCENTAGE SPECIES CONTRIBUTION TO WHOLE BELOW-GROUND BIOMASS FOR THE UNIT IS GIVEN IN BRACKETS.

<u>Species</u>	A	B	C	D	E	F	G
Herbaceous:							
Narthecium ossifragum*	439.0(74.24)*						
Eriophorum vaginatum					260.0(13.98)	31.2(2.36)	9.1(1.07)
Eriophorum angustifolium	49.2(8.32)	31.6(11.78)	6.2(1.46)	68.7(29.36)			24.2(2.84)
Woody:							
Calluna vulgaris		33.8(12.60)	71.1(9.70)		1513.6(81.37)		
Erica tetralix						17.7(1.34)	382.5(44.84)
Vaccinium myrtillus						967.5(73.26)	
Vaccinium oxycoccus	79.9(13.51)	193.0(71.93)	107.1(25.28)	64.2(27.44)			
Andromeda polifolia		0.7(.26)	26.9(6.35)				
Pinus sylvestris	23.2(3.92)		242.3(57.20)	83.1(35.51)	80.4(4.32)	304.2(23.03)	420.5(49.30)
unidentified roots		9.2(3.43)		18.0(7.69)	6.1(0.33)		16.7(1.96)
Total Root Biomass:	591.3	268.3	423.6	234.0	1860.10	1320.6	853.0

*Difficulty in separation of live and dead portions
high probable error.