Wendy Breiby. 2004. The Mature Woodlands of Martha's Vineyard, Naushon, Nantucket and Tuckernuck Islands, Massachusetts. Honor's Thesis, University of Massachusetts. Amherst.

Confusion between primary and old-growth woodlands and in definitions of ancient vs mature woodlands. But chose sites across W Moraine that were continuous woodlands in 1848, 1938, and 1993 and had bigger, older trees. Those without too much evidence of human history, mound and pit topo, late successional, structural diversity, varying ages = ancient and those with sprout and more open-grown trees, signs of disturbance = mature. Discussion focus on the unique characteristics of the woodlands and whether "these woodlands can be defined as eastern primary or old growth forest."

No reference to MCSF paper or any others by Motzkin or Foster, which clarify these issues and indicate that MCSF is all primary. Cite Cogbill on Wachusett Mt. Does talk of "coppice stools".

Seven large mature patches within least fragmented and rel. undeveloped areas of moraine (except Spring Point) form Menemsha to Cedar tree Neck. Harris, Kloss, Ganz, Seven Gates Corp, Woods and Polly Hill.

Bird data. Three veg plots per bird plot, plus Cruz-all plot; ages at breast height; core woody debris (future report); soils

Talks about an additional publication that will get at management objectives, land-use history and recommendations.

Near Whiting Hill one "ancient" site had old fence and a stonewall so likely sheep corralled. In "mature" evidence of "coppiced" trees (sic – she takes any sprouting to indicate coppicing, which is a land use and management approach not just cutting) and a few possible "wolf" trees.

So, many sites are primary and some may be OG – need more land use history to clarify.

Naushon – lowest diversity – 6.2 spp per plot average vs 12.7-19.8, due to beech. MV ancient had greatest but Whiting Hill had plots with >50 (likely due to planting by Shaler). Tuckernuck high due to open woods. Naushon distinct with most of canopy in subcanopy – dense beech (extreme dominant oak).

Oldest Median tree age – 160+ Tupelo on MV Mature; 178+ Hickory in MV Ancient; 181+ beech in Naushon; 165+ Black Oak on Tickernuck; 151+ Black Oak in Coskata Woods on ACK.

Oldest large diameter trees – 87.6 cm 246+ White Oak in MV Mature; 71.1 cm - 243+ Ted Oak at Seven Gates; 41.9 cm – 222+ Naushon; 21.6 cm – 200+ Black Oak Tuckernuck; 34.4 cm – 128+ yrs Black Oak – Coskata.

Tries to compare with DEM definition – component >than 50% of maximum longevity of spp.

All forests were uneven aged; majority of trees in smaller sizes. Similar BA – 19-24 m2/ha.
Much regeneration. Greatest diversity of regen at MV ancient and mature – not as isolated, wetlands near by.

Platitudes on management. Want to write for landowners and get landowners together to talk about conservation and management. Need work on strategy and ecology and to preserve these

of Reservations

Conserving the Massachusetts Landscape Since 1891

March 17, 2005

Dear Friends and landowners,

We hope you are all doing great. I think you will be pleased to know that I have finally finished my thesis on The Mature Woodlands of Martha's Vineyard, Naushon, Nantucket and Tuckernuck Islands. Lloyd Raleigh has also been using the data to work on management decisions for the Trustees properties that are located within the study.

As you know, Lloyd and I both have spent numerous hours for many years to get to this point and still there is more that could be done on the subject, but for me it is time to move on. So, we decided to give you a compact disk with the report on it. Make sure to check out the appendix if you are interested in programs to help alleviate tax burdens for your land holdings. We hope that you find it interesting, insightful, and easy to understand. If you would like any additional information, another copy of the cd, or support with management decisions or in finding out more about opportunities to help with landowner taxes, please feel free to call The Trustees of Reservations at (508) 693-7662.

We thank you again for all of your support and for allowing us to collect data from your properties. To those I had a chance to meet with and ask questions, I really enjoyed the time with you and the insight I gained in the process. With more time it would have been nice to meet with all of you.

Thanks again!!

Sincerely,

Wendy Breiby

Bird lists of spp.

MV, "Ancient" Bird Species	Average # per plot
Ovenbird	0.7
Eastern Towhee	0.6
Catbird	0.5
Black-capped Chickadee	0.5
White-breasted Nuthatch	0.5
Red-eyed Vireo	0.5
Downy Woodpecker	0.3
Wood Thrush	0.3
Hairy Woodpecker	0.2
Carolina Wren	0.1
Common Yellowthroat	0.1
Prairie Warbler	0.1
Scarlet Tananger	0.1
Veery	0.1

MV, "Mature" Bird Species	Average # per plot
Eastern Towhee	0.8
Catbird	0.7
Ovenbird	0.6
Red-eyed Vireo	0.6
Blue Jay	0.4
White-breasted Nuthatch	0.4
Wood Thrush	0.3
Black-capped Chickadee	0.2
Common Yellowthroat	0.2
Carolina Wren	0.2
Eastern Wood Peewee	0.2
Red-headed Woodpecker	0.2
Cardinal	0.1
American Crow	0.1
Northern Flicker	0.1
Hairy Woodpecker	0.1
Mocking Bird	0.1
Scarlet Tananger	0.1

Naushon Bird Species	Average # per plot
American Redstart	2.0
Red-eyed Vireo	1.3
Black-capped Chickadee	0.7
Eastern Wood Peewee	0.7
Catbird	0.3
Northern Flicker	0.3
Ovenbird	0.3

Coskata Woods Bird Species	Average # per plot
Yellow Warbler	0.5
Cooper's Hawk	2+

Tuckernuck Bird Species	Average # per plot
Eastern Towhee	1
Catbird	0.5
Common Yellowthroat	0.5

Complete List of Ages

MV Ancient

PLOT	spp.	dbh (cm)	dbh (in.)	Approx. no. of rings for median dbh tree	PLOT	spp.	dbh (cm)	dbh (in.)	Approx. no. of rings for largest dbh tree
10M	QUVE	17.8	7.0	37.0	10N	FAGR	49.5	19.5	51.0
22S	SAAL	16.5	6.5	59.0	10M	FAGR	43.2	17.0	63.0
18N	POGR	35.6	14.0	64.0	18N	QUVE	49.5	19.5	79.0
15N	ACRU	27.9	11.0	68.0	22N	QUAL	34.3	13.5	97.0
18S	ACRU	31.8	12.5	73.0	20S	ACRU	63.5	25.0	103.0
11M	FAGR	26.7	10.5	78.0	11S	QUVE	49.5	19.5	110.0
10S	FAGR	33.0	13.0	81.0	18S	ACRU	49.5	19.5	114.0
20S	NYSY	33.0	13.0	94.0	9M	QUAL	45.7	18.0	119.0
22M	QUVE	25.4	10.0	99.0	11M	QUVE	52.1	20.5	122.0
15S	ACRU	34.3	13.5	100.0	18M	QUVE	49.5	19.5	123.0
11N	QUVE	31.8	12.5	113.0	15M	ACRU	38.1	15.0	123.0
11S	FAGR	36.8	14.5	117.0	8S	QUAL	53.3	21.0	125.0
18M	QUVE	35.6	14.0	125.0	20N	QUAL	44.5	17.5	126.0
20M	QUVE	38.1	15.0	125.0	15S	QUAL	39.4	15.5	127.0
21M	QUVE	30.5	12.0	128.0	22S	QUAL	31.8	12.5	132.0
23M	QUAL	34.3	13.5	129.0	22M	QUAL	30.5	12.0	133.0
8S	CRSP	29.2	11.5	130.0	8N	QUAL	45.7	18.0	136.0
22N	QUAL	21.6	8.5	135.0	21M	QUVE	47.0	18.5	140.0
20N	QUVE	31.8	12.5	135.0	21S	QUAL	47.0	18.5	144.0
9M	QUVE	36.8	14.5	140.0	11N	QUVE	61.0	24.0	145.0
21N	QUAL	30.5	12.0	140.0	21N	QUAL	43.2	17.0	151.0
23S	QUVE	27.9	11.0	143.0	23S	QUVE	54.6	21.5	152.0
23N	QUVE	31.8	12.5	143.0	23N	QUVE	48.3	19.0	154.0
9S	QUVE	50.8	20.0	145.0	20M	QUVE	43.2	17.0	159.0
8N	CRSP	30.5	12.0	149.0	23M	QUVE	40.6	16.0	159.0
10N	CRSP	25.4	10.0	165.0	8M	QUAL	55.9	22.0	161.0
15M	QUAL	33.0	13.0	171.0	9N	CRSP	48.3	19.0	165.0
9N	CRSP	38.1	15.0	174.0	10S	QUVE	55.9	22.0	175.0
8M	CRSP	39.4	15.5	178.0	9S	QUAL	64.8	25.5	178.0
21S	QUVE	33.0	13.0	ND	15N	ACRU	71.1	28.0	243.0

MV Mature

PLOT	spp.	dbh (cm)	dbh (in.)	Approx. no. of rings for median dbh tree	PLOT	spp.	dbh (cm)	dbh (in.)	Approx. no. of rings for largest dbh tree
2M	QUVE	25.4	10.0	51.0	2M	QUVE	35.6	14.0	50.0
6N	QUAL	22.9	9.0	51.0	2N	QUVE	47.0	18.5	59.0
7N	QUVE	27.9	11.0	55.0	19M	FAGR	34.3	13.5	59.0
19N	QUAL	20.3	8.0	58.0	7N	QUVE	47.0	18.5	65.0
14M	QUAL	26.7	10.5	60.0	7M	QUVE	45.7	18.0	67.0
7M	QUVE	38.1	15.0	62.0	19N	QUVE	33.0	13.0	69.0
6M	QUVE	29.2	11.5	62.0	4N	QUVE	30.5	12.0	72.0
2N	QUVE	26.7	10.5	63.0	4S	QUAL	21.6	8.5	76.0
4S	QUVE	16.5	6.5	64.0	3N	QUVE	62.2	24.5	76.0
5S	SAAL	19.1	7.5	66.0	6S	FAGR	50.8	20.0	81.0
3N	QUVE	55.9	22.0	69.0	16N	FAGR	41.9	16.5	84.0
12S	NYSY	12.7	5.0	69.0	2S	QUVE	30.5	12.0	85.0
19M	QUVE	22.9	9.0	75.0	5M	QUAL	30.5	12.0	85.0
17M	QUVE	44.5	17.5	75.0	7S	QUVE	53.3	21.0	87.0
3M	NYSY	27.9	11.0	81.0	4M	QUVE	25.4	10.0	90.0
6S	QUAL	21.6	8.5	84.0	16S	QUVE	34.3	13.5	91.0
2S	QUAL	24.1	9.5	85.0	1M	QUVE	73.7	29.0	95.0
1M	QUVE	39.4	15.5	85.0	16M	QUVE	33.0	13.0	95.0
7S	QUVE	40.6	16.0	87.0	17M	QUVE	59.7	23.5	102.0
16N	QUVE	31.8	12.5	91.0	1N	QUVE	72.4	28.5	102.0
1S	QUVE	30.5	12.0	91.0	6M	QUAL	34.3	13.5	104.0
16M	QUAL	24.1	9.5	92.0	3M	QUVE	54.6	21.5	112.0
16S	QUAL	25.4	10.0	93.0	17S	QUVE	77.5	30.5	115.0
4N	QUAL	20.3	8.0	96.0	13M	QUAL	45.7	18.0	115.0
19S	QUVE	30.5	12.0	96.0	13N	QUAL	45.7	18.0	115.0
3S	QUVE	68.6	27.0	99.0	19S	QUVE	61.0	24.0	120.0
4M	ACRU	17.8	7.0	100.0	14N	QUVE	44.5	17.5	120.0
14N	QUVE	30.5	12.0	106.0	14M	QUVE	36.8	14.5	121.0
17S	ACRU	22.9	9.0	108.0	13S	QUAL	43.2	17.0	125.0
12M	QUAL	27.9	11.0	110.0	12N	QUAL	35.6	14.0	126.0
13S	QUAL	35.6	14.0	114.0	14S	FAGR	54.6	21.5	134.0
12N	QUAL	30.5	12.0	120.0	5N	QUAL	34.3	13.5	135.0
5M	QUAL	21.6	8.5	121.0	12M	QUAL	78.7	31.0	138.0
13M	FAGR	31.8	12.5	121.0	6N	QUAL	63.5	25.0	140.0
17N	QUVE	30.5	12.0	121.0	12S	QUVE	57.2	22.5	146.0
5N	ACRU	25.4	10.0	123.0	3S	QUVE	81.3	32.0	152.0
13N	QUAL	25.4	10.0	124.0	1S	QUVE	43.2	17.0	165.0
14S	QUAL	38.1	15.0	129.0	17N	QUAL	87.6	34.5	246.0
1N	NYSY	31.8	12.5	160.0	5S	NYSY	26.7	10.5	ND

Naushon

PLOT	spp.	dbh (cm)	dbh (in.)	Approx. no. of rings for median dbh tree	PLOT	spp.	dbh (cm)	dbh (in.)	Approx. no. of rings for largest dbh tree
27S	FAGR	27.9	11.0	38.0	25S	FAGR	24.1	9.5	47.0
27M	FAGR	24.1	9.5	39.0	26M	FAGR	55.9	22.0	54.0
24N	QUVE	33.0	13.0	42.0	27N	FAGR	34.3	13.5	74.0
24S	FAGR	38.1	15.0	46.0	26N	FAGR	43.2	17.0	96.0
27N	FAGR	19.1	7.5	52.0	26S	FAGR	50.8	20.0	132.0
25N	FAGR	15.2	6.0	60.0	24S	FAGR	53.3	21.0	148.0
26M	FAGR	27.9	11.0	61.0	24N	QUVE	91.4	36.0	165.0
26S	FAGR	25.4	10.0	89.0	27S	QUAL	64.8	25.5	167.0
26N	FAGR	38.1	15.0	128.0	27M	QUAL	55.9	22.0	196.0
24M	FAGR	48.3	19.0	157.0	24M	QUVE	71.1	28.0	214.0
25S	FAGR	21.6	8.5	167.0	25M	QUAL	54.6	21.5	214.0
25M	FAGR	40.6	16.0	181.0	25N	FAGR	41.9	16.5	222.0
					26S	FAGR	54.6	21.5	*258.0

Coskata Woods

PLOT	spp.	dbh (cm)	dbh (in.)	Approx. no. of rings for median dbh tree (inches)	PLOT	spp.	dbh (cm)	dbh (in.)	Approx. no. of rings for largest dbh tree (inches)
30N	SAAL	16.5	6.5	42.0	30S	QUAL	30.5	12.0	70.0
31S	SAAL	20.3	8.0	88.0	31S	QUVE	45.7	18.0	73.0
31N	QUVE	30.5	12.0	109.0	31N	QUVE	55.9	22.0	92.0
31M	QUAL	30.5	12.0	112.0	30M	FAGR	45.7	18.0	98.0
30S	QUVE	24.1	9.5	127.0	31M	QUVE	53.3	21.0	120.0
30M	QUVE	27.9	11.0	151.0	30N	QUVE	34.3	13.5	128.0

Tuckernuck

PLOT	spp.	dbh (cm)	dbh (in.)	Approx. no. of rings for median dbh tree	PLOT	spp.	dbh (cm)	dbh (in.)	Approx. no. of rings for largest dbh tree
29S	Black Oak	17.8	7.0	87	28N	White Oak	24.1	9.5	43
28N	Black Oak	22.9	9.0	99	29S	Black Oak	19.1	7.5	88
29M	Black Oak	15.2	6.0	107	28M	Black Oak	33.0	13.0	117
29N	Black Oak	19.1	7.5	123	29N	Black Oak	36.8	14.5	120
28S	Black Oak	22.9	9.0	133	28S	White Oak	27.9	11.0	192
28M	Black Oak	24.1	9.5	165	29M	Black Oak	21.6	8.5	200

Vascular Species Frequencies

MV Ancient

Common Name	Scientific Names	Frequency
Sassafras	Sassafras albidum	57.0%
White Oak	Quercus alba	57.0%
Catbrier		53.0%
Arrowwood	Viburnum dentatum	50.0%
Virginia Creeper	Parthenocissus quinquefolia	43.0%
Black Huckleberry	Gaylussacia baccata	38.0%
Sweet Pepperbush	Clethra alnifolia	38.0%
Black Oak	Quercus velutina	34.0%
Bristly Dewberry	Rubus hispidus	30.0%
Poison Ivy	Toxicodendron radicans	30.0%
Hophornbeam	Ostrya virginiana	29.0%
American Beech	Fagus grandifolia	28.0%
Black Cherry	Prunus serotina	28.0%
Striped Wintergreen	Chimaphila maculata	27.0%
Hickory species	Carya spp.	26.0%
Red Maple	Acer rubrum	25.0%
Swan's Sedge	Carex swanii	25.0%
White Wood Aster	Aster divaricatus	25.0%
False Solomon's Seal	Smilacina spp.	23.0%
Highbush Blueberry	Vaccinium corymbosum	23.0%
Small White Aster	Aster vimineus	20.0%
Blackberry	Rubus allegheniensis	18.0%
Starflower	Trientalis borealis	18.0%
Wild Licorice	Galium lanceolatum*	18.0%
Big Star Sedge	Carex rosea	17.0%
Roughstem Goldenrod	Solidago rugosa	17.0%
Smooth Shadbush	Amelanchier laevis	16.0%
Common Cinquefoil	Potentilla simplex	14.0%
Elliot's Goldenrod	Solidago elliottii	14.0%
Swamp Azalea	Rhododendron viscosum	14.0%
a sedge	Carex spp.	13.0%
Cinnamon Fern	Osmunda cinnamomea	13.0%
Tupelo	Nyssa sylvatica	13.0%
Wild Geranium	Geranium spp.	13.0%
Winterberry Holly	Ilex verticillata	13.0%
Canadian Mayflower	Maianthemum canadense	12.0%
Dangleberry	Gaylussacia frondosa	12.0%
Indian Pipe	Monotropa uniflora	12.0%
Wavy-leaved Aster	Aster undulatus	2.0%
Wood Anemone	Anemone quinquefolia	2.0%
Bentgrass	Agrostis spp.	1.0%
Big-toothed aspen	Populus grandidentata	1.0%
Black Chokeberry	Aronia melanocarpa	1.0%
Black Locust	Robinia pseudoacacia	1.0%
Early Low Blueberry	Vaccinium pallidum	1.0%
Fall Rattlesnake Root	Prenathes trifoliolata	1.0%
Gooseberry	Ribes hirtellum	1.0%
Heal-all	Prunella vulgaris	1.0%
Pinesap	Monotropa hypopithys	1.0%
Poverty Grass	Danthonia spicata	1.0%
Prickly Dewberry	Rubus flagellaris	1.0%
Rattlesnake Plantain	Goodyera spp.	1.0%
Sheep Laurel	Kalmia angustifolia	1.0%
Skunk Cabbage	Symplocarpus foetidus	1.0%
Smooth False Foxglove	Aureolaria flava	1.0%
Trailing Arbutus	Epigea repens	1.0%
White Baneberry	Actaea pachypods	1.0%
Whorled Loosestrife	Lysimachia quadrifolia	1.0%
Winged or Shining sumac	Rhus copallinum	1.0%
Yarrow	Achillea millefolium	1.0%

Beech Drops	Epifagus virginiana	11.0%
Canadien Sanicle	Sanicula canadensis**	9.0%
Sweet-scented Bedstraw	Galium triflorum	9.0%
Violet species	Viola spp.	9.0%
Hayscented Fern	Dennstaedtia punctilobula	8.0%
Late Low Blueberry	Vaccinium angustifolium	8.0%
Naked Tick-Trefoil	Desmodium nudiflorum	8.0%
White Avens	Geum canadense	8.0%
American Holly	Ilex opaca	7.0%
Indian Cucumber-root	Medeola virginiana	7.0%
Marsh Fern	Thelypteris palustris	7.0%
Spicebush	Lindera benzoin	7.0%
Strawberry species	Fragaria spp.	7.0%
Bluegrass	Poa spp.	6.0%
Eastern Red Cedar	Juniperus virginiana	6.0%
a grass species		6.0%
Wild Sarsaparilla	Aralia nudicaulis	6.0%
Wintergreen	Gaultheria procumbens	6.0%
Wreath Goldenrod	Solidago caesia	6.0%
Flowering Dogwood	Cornus florida	5.0%
Summer Grape	Vitis aestivalis	5.0%
Sensitive Fern	Onoclea sensibilis	4.0%
Beaked Hazelnut	Corylus cornuta	3.0%
Bracken Fern	Pteridium aquilinum	3.0%
Dwarf Cinquefoil	Potentilla canadensis	3.0%
Hairy Hawkweed	Hieracium gronovii	3.0%
Japanese Barberry	Berberis thunbergii	3.0%
Japanese Honeysuckle	Lonicera japonica	3.0%
Oval-headed Sedge	Carex cephalophora	3.0%
Panic-grass	Panicum spp.	3.0%
Pennsylvania Sedge	Carex pensylvanica	3.0%
Pussytoes	Antennaria spp.	3.0%
Rose species	Rosa spp.	3.0%
Solomon's Seal	Polygonatum spp.	3.0%
Spaghnum Moss	Sphagnum cymbilifolium	3.0%
Spinulose Wood Fern	Dryopteris intermedia	3.0%
White-topped Aster	Aster paternus	3.0%
Witch Hazel	Hamamelis viginiana	3.0%
a lichen		2.0%
Bittersweet	Celastrus spp.	2.0%
Red Fescue	Festuca rubra	2.0%
Round-leaved Shinleaf	Pyrola rotundifolia	2.0%
Southern Ticklegrass	Agrostis hyemalis	2.0%

MV Mature

Common Name	Scientific Name	Frequency
Catbrier	Smilax rotundifolia	58.0%
White Oak	Quercus alba	58.0%
Arrowwood	Viburnum dentatum	54.0%
Black Huckleberry	Gaylussacia baccata	53.0%
Red Maple	Acer rubrum	51.0%
Highbush Blueberry	Vaccinium corymbosum	46.0%
Bristly Dewberry	Rubus hispidus	43.0%
Black Oak	Quercus velutina	38.0%
Tupelo	Nyssa sylvatica	37.0%
Sassafras	Sassafras albidum	36.0%
Sweet Pepperbush	Clethra alnifolia	35.0%
Black Cherry	Prunus serotina	34.0%
Dangleberry	Gaylussacia frondosa	31.0%
American Beech	Fagus grandifolia	29.0%
Starflower	Trientalis borealis	28.0%
Poison Ivy	Toxicodendron radicans	26.0%
Smooth Shadbush	Amelanchier laevis	21.0%
Winterberry Holly	Ilex verticillata	20.0%
Swamp Azalea	Rhododendron viscosum	17.0%
Virginia Creeper	Parthenocissus quinquefolia	15.0%
a sedge	Carex spp.	13.0%
Blackberry	Rubus allegheniensis	13.0%
Canadian Mayflower	Maianthemum canadense	13.0%
Striped Wintergreen	Chimaphila maculata	13.0%
Late Low Blueberry	Vaccinium angustifolium	12.0%
Sawbrier	Smilax glauca	12.0%
Bracken Fern	Pteridium aquilinum	10.0%
Red Chokeberry	Aronia arbutifolia	10.0%
Spaghnum Moss	Sphagnum sp.	9.0%
Cinnamon Fern	Osmunda cinnamomea	8.0%
Indian Pipe	Monotropa uniflora	8.0%
Marsh Fern	Thelypteris palustris	6.0%
New York Fern	Thelypteris noveboracensis	6.0%
Small White Aster	Aster vimineus	6.0%
Summer Grape	Vitis aestivalis	6.0%
Wild Sarsaparilla	Aralia nudicaulis	6.0%
Wintergreen	Gaultheria procumbens	6.0%
Hayscented Fern	Dennstaedtia punctilobula	5.0%
Roughstem Goldenrod	Solidago rugosa	5.0%
Trailing Arbutus	Epigea repens	5.0%
American Holly	Ilex opaca	4.0%
Elliot's Goldenrod	Solidago Elliottii	4.0%
Indian Cucumber-root	Medeola virginiana	4.0%
Dwarf Cinquefoil	Potentilla canadense	3.0%
Early Low Blueberry	Vaccinium pallidum	3.0%
Sensitive Fern	Onoclea sensibilis	3.0%
Sweet Goldenrod	Solidago odora	3.0%
Violet species	Viola spp.	3.0%
White-topped Aster	Aster paternus	3.0%
a clubmoss	Lycopodium spp.	2.0%
Hairy Hawkweed	Hieracium gronovii	2.0%
Hickory species	Carya spp.	2.0%
Northern Bayberry	Myrica pensylvanica	2.0%
Panic-grass	Dichanthelium spp.	2.0%
Whorled Loosestrife	Lysimachia quadrifolia	2.0%
Beaked Hazelnut	Corylus cornuta	1.0%
a berry species	Rubus spp.	1.0%
False Solomon's Seal	Smilacina racemosa	1.0%
a grass species		1.0%
Ground Pine	Lycopodium obscurum	1.0%
Marsh Bedstraw	Galium palustre	1.0%

Pinesap	Monotropa hypopithys	1.0%
Pink Lady-slipper	Cypripedium acaule	1.0%
Raspberry	Rubus idaeus	1.0%
Reindeer Moss	Cladonia rangiferina	1.0%
Sheep Laurel	Kalmia angustifolia	1.0%
Swan's Sedge	Carex swanii	1.0%
Water-horehound	Lycopus spp.	1.0%
Wavy-leaved Aster	Aster undulatus	1.0%
White Wood Aster	Aster divaricatus	1.0%

Naushon

Common Name	Scientific Name	Frequency
American Beech	Fagus grandifolia	100.0%
Swan's Sedge	Carex swanii	73.0%
Catbrier	Smilax rotundifolia	46.0%
White Oak	Quercus alba	33.0%
Beech Drops	Epifagus virginiana	31.0%
Black Oak	Quercus velutina	23.0%
Hophornbeam	Ostrya virginiana	19.0%
Bentgrass	Agrostis spp.	8.0%
Creeping Bent-grass	Agrostis stolonifera	8.0%
Smooth Shadbush	Amelanchier laevis	8.0%
Canadian Mayflower	Maianthemum canadense	6.0%
Choke Cherry	Prunus virginiana	6.0%
Late Low Blueberry	Vaccinium angustifolium	6.0%
Slender-spiked Woodland Sedge	Carex digitalis	6.0%
Summer Grape	Vitis aestivalis	6.0%
Wintergreen	Gaultheria procumbens	4.0%
a sedge	Carex spp.	2.0%
Black Huckleberry	Gaylussacia baccata	2.0%
Pinesap	Monotropa hypopithys	2.0%
Southern Ticklegrass	Agrostis hyemalis	2.0%

Coskata

Common Name	Scientific Name	Frequency
Poison Ivy	Toxicodendron radicans	100.0%
	Trientalis borealis	83.0%
	Sassafras albidum	79.0%
Virginia Creeper	Parthenocissus quinquefolia	79.0%
Arrowwood	Viburnum dentatum	67.0%
Beaked Hazelnut	Corylus cornuta	54.0%
Black Huckleberry	Gaylussacia baccata	54.0%
Bristly Dewberry	Rubus hispidus	50.0%
Dangleberry	Gaylussacia frondosa	38.0%
Sweet Pepperbush	Clethra alnifolia	33.0%
Black Oak	Quercus velutina	29.0%
Catbrier	Smilax rotundifolia	29.0%
White Oak	Quercus alba	25.0%
Tupelo	Nyssa sylvatica	21.0%
Blackberry	Rubus allegheniensis	17.0%
Carolina Rose	Rosa carolina	
Raspberry	Rubus idaeus	17.0%
Sweet-scented Bedstraw	Galium triflorum	17.0%
Whorled Loosestrife	Lysimachia quadrifolia	17.0%
Wood Anemone	Anemone quinquefolia	17.0%
Bracken Fern	Pteridium aquilinum	13.0%
Summer Grape	Vitis aestivalis	13.0%
Gooseberry	Ribes hirtellum	8.0%
Sawbrier	Smilax glauca	8.0%
Wild Morning Glory	Calystegia sepium	8.0%
Black Cherry	Prunus serotina	4.0%
Fox Grape	Vitis labrusca	4.0%

Tuckernuck

Common Name	Scientific Name	Frequency
Arrowwood	Viburnum dentatum	
Black Huckleberry	Gaylussacia baccata	100.0%
Bristly Dewberry	Rubus hispidus	92.0%
Poison Ivy	Toxicodendron radicans	92.0%
Virginia Creeper	Parthenocissus quinquefolia	92.0%
Black Cherry	Prunus serotina	88.0%
Beaked Hazelnut	Corylus cornuta	75.0%
a sedge	Carex spp.	67.0%
Sassafras	Sassafras albidum	63.0%
	Smilax glauca	63.0%
Black Oak	Quercus velutina	58.0%
White Oak	Quercus alba	58.0%
Starflower	Trientalis borealis	50.0%
Northern Bayberry	Myrica pensylvanica	29.0%
Red Chokeberry	Aronia arbutifolia	25.0%
Blackberry	Rubus allegheniensis	21.0%
Cow-wheat	Melampyrum lineare	21.0%
Hickory species	Carya spp.	17.0%
Whorled Loosestrife	Lysimachia quadrifolia	17.0%
Carolina Rose	Rosa carolina	13.0%
Dwarf Chestnut Oak	Quercus prinoides	13.0%
Highbush Blueberry	Vaccinium corymbosum	13.0%
Raspberry	Rubus idaeus	13.0%
Scrub Oak	Quercus ilicifolia	13.0%
American hazelnut	Corylus americana	8.0%
Common Hairgrass	Deschampsia flexuosa	8.0%
Fox Grape	Vitis labrusca	8.0%
Greene's rush	Juncus greenei	8.0%
Rose species	Rosa spp.	8.0%
Sheep Sorrel	Rumex acetosella	8.0%
Sweet Goldenrod	Solidago odora	8.0%
Aster spp.	Aster spp.	4.0%
Dwarf Cinquefoil	Potentilla canadense	4.0%
Elliot's Goldenrod	Solidago elliottii	4.0%
Grass-leaved Goldenrod	Euthamia graminifolia	4.0%
Panicled Hawkweed	Hieracium paniculatum	4.0%
Slender-leaved Goldenrod	Euthamia tenuifolia	4.0%
Smooth Shadbush	Amelanchier laevis	4.0%
Summer Grape	Vitis aestivalis	4.0%
Trailing Arbutus	Epigea repens	4.0%
Wild Lettuce	Lactuca sp.	4.0%
Winged or Shining sumac	Rhus copallinum	4.0%