

## Special Area Analysis – FLNF

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5/25/04; updated 8/13/04

Various inventories have taken place within the FLNF to determine the presence of features of biological or ecological significance. In 1988, the NYNHP identified a swamp on the Forest having ecological significance at the state level. NYNHP also surveyed the lakeshore of Seneca Lake looking for potential habitat for a federally listed plant; they determined that the eastern shore generally did not have suitable habitat. In addition, in 1991 Steve Young of the NYNHP visited several sites proposed for management activities on the Forest to determine if any rare plants were present. During the early 1990's, the Forest also contracted with a local botanist (F. Robert Wesley) to do inventories for rare plants in areas proposed for management. Several sites were identified by Wesley as having plants rare or scarce within the Cayuga Lake Basin, but none were identified that were rare statewide. In 2000, a proposal to develop deep gas reserves on the FLNF led to the need to identify potential sites for rare plants. A Forest Service botanist (MaryBeth Deller) identified a list of about 123 potential sites on the Forest, which included some sites already identified as significant or of interest botanically. Twenty-five sites were visited in 2000, and of those seven were determined to be of some significance. No additional sites have been surveyed at this time.

The Forest Plan for the FLNF did not establish any Research Natural Areas (RNAs), but did identify ten areas encompassing 367 acres as potential old growth and consequently candidates for RNA designation. Of these, two are shrub opening communities for the study of forest succession. A committee of scientists (the New York Evaluation Committee, established by Steve Harper and Hilary Dustin) evaluated all 10 candidates for RNA designation in 1987 in the field, and four of the areas were rejected as lower quality than other sites. Two shrub opening areas were replaced with two different shrub areas that the committee deemed better candidates. The sites in Compartment 78 and 61 were also considered better-represented elsewhere. Boundary modification was recommended for several. Consequently, the committee recommended that eight sites, including two new shrub sites and the remaining wooded sites, be recommended for RNA designation. Because the purpose of RNA establishment is to provide a relatively unmodified area as a baseline for study of changes in ecosystems in other parts of the landscape, shrub openings are not appropriate for designation as RNAs. The two openings recommended by the committee will therefore not be recommended for establishment by the FLNF.

Based on these inventories and those in previous years, the FLNF has identified 23 sites (Table 1) of ecological significance, including six sites currently protected in part or in whole as Potential Old Growth special areas and cRNAs, and another site protected as the Ravine Trail special area (8.1C). Four sites currently identified as Potential Old Growth special areas were not recommended to continue as candidate RNAs, and are no longer considered to be enough significance to continue within a special area designation; two of these sites are the shrublands noted earlier and the other two are small patches of Appalachian oak-hickory forest that are fairly isolated from other forest.

Of the 23 sites, 11 are significant due to high quality natural communities, and 16 are significant for rare or uncommon plants; four are considered significant for both features. We have determined that those sites considered significant for rare or uncommon plants alone are

generally well-protected through standards, guidelines, and Forest Service policy regarding those species of federal or state concern.

The 11 sites considered significant for natural communities include the six existing cRNAs that are still high quality, although not all need to become RNAs. The principles of conservation biology would suggest, however, that more than one example of the natural communities present on the FL should be protected in some management category that emphasizes natural processes and/or restoration. Consequently, to the extent that these 11 sites represent natural community diversity on the FLNF, we will attempt to place these sites in some protective category and build from them to add additional diversity where possible and feasible. We will also use ecological landtypes and landtype associations to help identify how ecological diversity is distributed and protected on the FLNF, and where opportunities exist we will seek to add ecological diversity to protected areas. Because the FLNF is heavily roaded with town roads outside Forest Service jurisdiction, protected areas here will generally not meet the typical high standards of conservation usually expected, in other words both moderate to large size AND non-motorized uses. In protected categories, we have decided to accommodate existing motorized uses in the interest of making sites larger and so more ecologically viable.

Table 1. New significant ecological features, and existing protected areas, for the FLNF.

Town	Compartment	Size (acres) <sup>1</sup>	Site Name	Protect. Status <sup>2</sup>	Natural Community	Rare or Uncommon Plant	Rationale
Hector	62, 71	8.1=75 sig=78	Hector Oak woods (8.1D; site 39)	P/C	Appalachian oak-hickory (estab. 1916-1932)	Viola palmata Baptisia tinctoria	Current 8.1D; natural community & rare plants; need to expand existing 8.1D into 9.2 areas and connect two patches; has been noted as best example of type on Forest
Hector	62	25	C62 Lowlands (site 54)	N		Juglans cinerea	Rare plants only; protected by S&Gs.
Hector	61	19	C61 8.1D (8.1D; site 111)	P/N	Appalachian oak-hickory (estab. 1914)		In the vicinity of one of original 8.1D sites; <b>rejected by committee reviewing cRNAs</b> ; no old growth or significant mature forest present.
Hector	52	68	Burnt Hill SW (site 4)	N		Oryzopsis racemosa Viola plamata	Rare plants; from Steve Young of NYNHP; protected by S&Gs.
Hector	53	28	Gorge Trail (site 46)	C	Hemlock-northern hardwoods (estab. 1930)	Juglans cinerea Viola palmata Juglans nigra	Rare plants; also area of high tree species diversity
Hector	53, 54	37	Burnt Hill E (site 2)	N		Nyssa sylvatica, Lilium philadelphicum Viola palmata	Rare plants; from Steve Young of NYNHP; protected by S&Gs.
Hector	45, 54	8.1=41 sig=139	Potomac Creek Woods (8.1D; site 38)	P/C	Hemlock-northern hardwoods (estab. 1914)		Current 8.1D; high quality example of natural community; make bdry ecological.
Hector	44	8.1=26 sig=102	South of Blueberry Patch (8.1D; site 33)	P/C	Appalachian oak-hickory (estab. 1905-1910)		Current 8.1D; high quality example of natural community; make boundary ecological
Hector	34, 44	44	Blueberry Patch Swamp (site 32)	C	Perched swamp white oak swamp (estab. 1905)	Quercus bicolor	Only 1 of 2 examples of type in state; south end high quality; combine with South of Blueberry Patch.
Hector	43	8.1=36 sig=31	Ravine Trail (8.1C)	P/C	Hemlock-northern hardwood (estab. 1923)		Current 8.1C; high quality example of natural community; adjust boundaries to be more ecological

Town	Compartment	Size (acres) <sup>1</sup>	Site Name	Protect. Status <sup>2</sup>	Natural Community	Rare or Uncommon Plant	Rationale
Hector	34	46	Compartment 34 (site 30)	N		Carex tuckermanii	Rare plants only; protected by S&Gs.
Hector	33	8.1=107 sig=131	Sawmill Ravine (8.1D; site 27)	P/C	Hemlock-northern hardwood (estab. 1914)		Current 8.1D; high quality example of natural community; make boundary ecological
Hector	24	59	Backbone Ridge (site 7)	N		Nyssa sylvatica Viola palmata	Rare plants only; protected by S&Gs.
Hector	24	92	Ladyslipper Pines (site 24)	N		Cypripedium acaule	Protected plants; cool orchids; protected by S&Gs.
Hector	26	21	Potomac Ravine (site 50) (estab. 1930)	C	Maple-basswood rich mesophytic forest/ravine	Juglans cinerea Juglans nigra	Rare plants; may be best example of type on Forest, but small; check to see if can connect with adjacent lands.
Hector	14	105	Hector Hill (site 5)	N		Carex rosea	Rare plants; from Steve Young of NYNHP; protected by S&Gs..
Hector	14	3	Joe's Wetland (site 64)	N		Lobelia cardinalis Aronia melanocarpa	Rare plants only; protected by S&Gs.
Hector	4	10	Compartment 4 Site 3 (site 63)	N		Phegopteris hexagonoptera Lobelia cardinalis Polygonum arifolium	Rare plants only; protected by S&Gs.
Hector	6	26	C6 Stream (site 65)	N		Lobelia cardinalis	Rare plants only; protected by S&Gs.
Hector	7	39	E. Steamburg Woods (site 1)	N	Wetland	Aronia melanocarpa	Rare plants & wetland; from Steve Young NYNHP; significance uncertain; protected by S&Gs.
Hector	14	14	Potential old growth 8.1D	P/N	Shrubland		Original 8.1D shrubland; committee rejected shrubland; remove protection
Hector	1	32	Breakneck Creek	P	Dry oak ravine		Recommended by field surveyors; unusual ravine with large trees.
Lodi	92	15	Townsend Road Oak Woods (8.1D; site 18)	P	Appalachian oak-hickory (estab. 1937)		Original 8.1D; high quality example of natural community but small.

Town	Compartment	Size (acres) <sup>1</sup>	Site Name	Protect. Status <sup>2</sup>	Natural Community	Rare or Uncommon Plant	Rationale
Lodi	78	8	Potential old growth 8.1D	P/N	Appalachian oak-hickory (estab. 1934)		Original 8.1D; committee decided better examples in other areas – too small.
Lodi	79	10	C79 wetland (site 66)	N		Lobelia cardinalis Polygonum arifolium Quercus bicolor	Rare plants & wetland; protected by S&Gs.
Lodi	65	6	Potential old growth 8.1D	P/N	Shrubland		Original 8.1D shrubland; committee rejected shrubland; remove protection
Lodi	66	8.1=20 sig=38	Mill Creek Ravine (8.1D; site 17)	P/C	Hemlock-northern hardwood (Estab. 1930-1934)		High quality example of natural community; make bdry ecological
<b>TOTAL (Signif.)</b>		<b>8.1=367 sig=1184</b>	<b>27 sites (23 sites)</b>		<b>16 sites (11 sites)</b>	<b>16 sites (16 sites)</b>	

<sup>1</sup>8.1 refers to the size of the original 8.1C or D designation in 1987; “sig” refers to the size of the area defined as significant during field surveys; otherwise acres refer to the area deemed significant.

<sup>2</sup>P = currently protected in a special management area designation (8.1); **recommend maintain protection – see rationale.**

N = currently not protected by a special management area designation; **recommend protection not required – see rationale.**

C = currently not protected by a special management area designation; **recommend change to protected status – see rationale.**

P/C = currently protected in a special management area designation in part; **recommend expand protection – see rationale.**

P/N = currently protected by special management area designation; **recommend protection not required – see rationale.**