

**Draft Key to Habitats of Columbia County** (still incomplete and in need of revisions)

(Oct. 30, 2015)

1. Habitats that have wet soils all year or typically have wet soils for at least 1-3 consecutive weeks during the growing season ..... (Wetland Habitats) 2

1. Habitats on soils that are drier..... (Upland Habitats) 4

2. Tidal wetland habitats with some direct hydrological connection to the Hudson River, and with regular water level fluctuations caused by ocean tides.....**Key to FRESHWATER TIDAL HABITATS** (NOT YET DEVELOPED FURTHER)

2. Non-tidal wetland habitats that are not directly connected to the Hudson River, or if directly connected, then upstream from regular tidal influence.....3

3. Wetland habitats that are dominated by trees (either with  $\geq 30\%$  tree canopy closure throughout the habitat, or by trees surrounding a *vernal pool* or *seep* with an open canopy above) .....**Key to WOODED WETLANDS** (Page V)

3. Wetland habitats that are not dominated by trees (i.e. with  $< 30\%$  tree canopy closure) .....**Key to OPEN WETLANDS** (Page V)

4. Upland habitats that have significant portions without topsoil.....5

4. Upland habitats with at least a thin layer of topsoil.....6

5. Naturally occurring bedrock outcrops .....**Key to ROCKY OUTCROPS** (NOT YET DEVELOPED FURTHER)

5. Bedrock or gravel beds exposed by mining activity.....**Gravel Pits and Quarries**

6. Upland habitats that have  $\geq 30\%$  tree canopy closure.....**Key to WOODED UPLANDS** (Page II)

6. Upland habitats that have  $< 30\%$  tree canopy closure.....**Key to OPEN UPLANDS** (Page IV)

**Page II: Key to WOODED UPLANDS**

1.Canopy is dominated by evergreen trees, deciduous trees might also be present.....2

1.Canopy is dominated by deciduous trees, although evergreen trees might be present in small numbers.....5

2. Canopy is dominated by Hemlock, but Red Oak, Chestnut Oak, Red Maple and/or Black Birch may also be present in significant numbers; Sugar Maple and White Pine may occur, but are not common; the dense conifer canopy creates deep shade, allowing only for very sparse vegetation on the ground and in the understory/shrub layer; tree regeneration, if present, is mostly of Hemlock.....**Hemlock Forest**

2. Canopy is not dominated by Hemlock, although Hemlock may be present as scattered individual trees or in small patches.....3

3. Canopy is dominated by White Pine, but White Birch, Black Cherry, Sugar and Red Maple, Red Oak, and even Beech can also be present in appreciable numbers; the understory/shrub layer is diverse, mostly composed of tree regeneration, but Striped Maple and Musciewood are also often present.....**White Pine Forest**

3.Canopy is not dominated by White Pine, although White Pine may be present as scattered individual trees.....4

4. Canopy is dominated by Red Cedar, which might be accompanied by White Pine, Hophornbean, Shagbark Hickory, and/or American Elm; Red Oak, and to a lesser degree, Sugar Maple might be present, but Red Maple, Basswood, Beech, Yellow Birch and White Birch are rare or absent; Common Buckthorn tends to be common in the understory.....**Red Cedar Forest**

4. Canopy is dominated by conifers other than Hemlock, White Pine, or Red Cedar; the dominant trees might be Norway Spruce, European Larch, Scots Pine, Red Pine, etc, planted in monoculture or a mixed stand.....**Conifer Plantation**

5.Canopy is dominated by oaks and/or Sugar Maple.....6

5.Canopy is not dominated by oaks and/or Sugar Maple.....10

6.Canopy is dominated by one or a combination of oak species, such as Red Oak, Chestnut Oak, White Oak, Black Oak, etc.....7

6.Canopy is dominated by Sugar Maple, often accompanied by Red Oak.....8

7.Red Maple can be co-dominant with the oaks; individual Shagbark and/or Pignut Hickory trees are often present, and Beech, Black Cherry, White Pine, Black and White Birch can also occur in small numbers; Sugar Maple, as well as Yellow Birch and Basswood are rare or absent; the understory is predominantly of native species, such as Hophornbeam, Witchhazel, Striped Maple, and Serviceberry ; Lowbush Blueberry tends to be present, often together with taller heath species.....

..... **Oak-Hickory Forest**

7.Sugar Maple is present and can be co-dominant with the oaks, together with Red Maple and Black Birch; White Birch, White Pine, Pignut Hickory, and Beech often also occur in small numbers; the understory is predominantly of native species, with Maple-leaved Viburnum and

**Page III: continuation of Key to WOODED UPLANDS**

- American Chestnut joining Hophornbeam, Witchhazel, Striped Maple, and Serviceberry; Lowbush Blueberry sometimes occurs, but taller heath species tend to be absent.....**Rich Oak Forest**
- 8.Sugar Maple (and often Red Oak) share the canopy with a diverse set of species, including at least a small number of either Basswood, Beech, or Yellow Birch; often present are also Red Maple, Black Birch, White Ash, White Oak, and even Hemlock; however, Chestnut Oak tends to be absent; the understory is dominated by young Sugar Maple trees, sometimes accompanied by Muscledwood; Striped Maple, Hophornbeam, and Witchhazel can be present but tend to be sparse; spring ephemerals can be abundant and diverse.....**Northern Hardwood-Hemlock Forest**
- 8.Sugar Maple (and often Red Oak) are dominant in the canopy, accompanied by a few other species, which hardly ever include Black Birch, Hemlock, Basswood, Beech, or Yellow Birch; Muscledwood is also practically absent.....**9**
- 9.Sugar Maple (and often Red Oak) dominate the canopy and may be accompanied by White Ash, and a few other species in low numbers; however, Black Cherry, White Pine, White Birch, and Red Maple are very rare; the understory is composed mostly of Sugar Maple regeneration, Hophornbeam and Witchhazel; .....**Mature Sugar Maple Forest**
- 9.Sugar Maple (and often Red Oak) dominate the canopy, but are usually accompanied by a significant amount of least one of the following species: Black Cherry, White Pine, White Birch, White Ash, or Red Maple; the understory is composed mostly of Sugar Maple regeneration, and, to a lesser degree of Red Maple regeneration and Hophornbeam .....**Young Sugar Maple Forest**
- 10.Canopy has a significant amount of any of the following species: American or Slippery Elm, White or Green Ash, Black Cherry, Trembling Aspen, and/or Grey or White Birch, but little or no Black Locust.....**Mixed Young Forest**
- 10.Canopy has a significant amount of Black Locust, sometimes mixed with Cottonwood, Sycamore, Tree-of-Heaven, as well as other species.....**11**
- 11.Canopy is basically dominated by Black Locust.....**Black Locust Forest**
- 11.Canopy is dominated by Cottonwood or Sycamore, but Black Locust is usually also present.....**Young Floodplain/ Dredge Spoil Forest**

## Page IV: Key to OPEN UPLANDS

1.Linear corridor maintained free of trees by cutting and/or herbicide application in order to provide continuous access to power lines or buried pipelines.....	<b>Utility Corridor</b>
1.Other open uplands.....	2
2.Herbaceous plants dominant, individual shrubs or trees might be present, but make up for less than 20% of the cover.....	3
2.Shrubs (woody plants < 20 feet high) make up at least 20% of the cover.....	8
3.Frequently mowed lawn.....	4
3.Meadow of active or past agricultural use.....	5
4.Closely mowed lawn of cemetery.....	<b>Cemetery</b>
4.Lawn not located in a cemetery (e.g., yard, park, ball field, golf course).....	Not yet included in Field Guide
5.Land of past agricultural use, but currently not managed for agricultural production; kept open by mowing at the most once a year.....	6
5.Land actively farmed either for hay, pasture or both.....	7
6.Topsoil thin, sometimes even small rocky outcrops present; vegetation sparse, typically with at least some tussocks of the native warm-season grass Little Bluestem.....	<b>Dry Meadow</b> (in part)
6.Topsoil not obviously thin, rocky outcrops usually not present; vegetation typically a mix of native and non-native plants, including European cold-season grasses and clovers, as well as native Goldenrods and Asters.....	<b>Old Field</b>
7.Topsoil thin, sometimes even small rocky outcrops present; vegetation sparse, typically with at least some tussocks of the native warm-season grass Little Bluestem.....	<b>Dry Meadow</b> (in part)
7.Topsoil not obviously thin, vegetation mostly composed of non-native cold-season grasses, clovers and other European meadow plants well adapted to frequent grazing and/or mowing.....	<b>Pasture/Hayfield</b>
8.Shrub layer not dominated by blueberry species and/or other members of the heath family.....	<b>Successional Shrubland</b>
8.Shrub layer dominated by blueberry species and/or other members of the heath family .....	9
9.Shrub layer dominated by low-growing blueberry species, no higher than hip height, maintained by active management through periodic cutting or burning.....	<b>Blueberry Heath</b>
9.Shrub layer consists of a mix of Scrub Oak and a variety of heath species; stunted Pitch Pine, Red and White Oak, as well as Grey and White Birch are sometimes also present.....	<b>Oak-Heath Barren</b>

## Page V: Key to WOODED WETLANDS

1. Larger expanse of wetland habitat with, on average, at least 30% canopy cover by trees taller than 20 feet.....2
1. Small wetland area in form of a distinct pool or seep (which might or might not have a few trees of a variety of species, including Red Maple, growing in it) or a small stream surrounded by upland forest .....3
2. Wetland is located in the floodplain of a stream and gets flooded on average at least once a year; Silver Maple is one of the most common trees.....**Silver Maple Floodplain Forest**
2. Wetland is located in a basin with little or no flowing water on the surface; Red Maple is usually one of the most common trees..... **Swamp Forest**
3. Linear wetland in form of a small intermittent or permanent stream and its banks.....**Headwater Stream**
3. Not a linear wetland.....4
4. Distinct pool which holds water only part of the year, usually late winter through spring, completely dries up by mid summer, and, even when it has water, is isolated from other water bodies, so that no fish can migrate in..... **Intermittent Woodland Pool**
4. Area where ground water seeps to the surface year round, including or at least surrounded by trees..... **Wooded Seep**

## Page V: Key to OPEN WETLANDS

1. Shrubs (woody plants < 20 feet high) make up at least 20% of canopy cover.....**Shrub Swamp**
1. Herbaceous plants dominant; woody plants make up less than 20% canopy cover, although individual shrubs or trees might be present.....2
2. Peat soil..... KEY NOT YET DEVELOPED FURTHER
2. Mineral soil.....3
3. Soil saturated year round, covered with water almost year-round.....**Marsh**
3. Soil saturated part of the year, covered with water only seasonally (e.g., in spring), occasionally (e.g., after flooding or a rain), if at all.....  
.....**Wet Meadow**