Description of Ecological Systems' Vegetation Classes for Cherokee National Forest

NRV %[1]	Class Code	Veg Class	Description[2]	Cover %[3]	Age[4]	*Height & DBH*[2]
Cove Forest *5713180 – Southern & Central Appalachian Cove Forest (p. 25-31)*						
4%	A	Early	Early tree regeneration phase (root and stump sprouts and seed bank)	n/a	<10 yrs	*0 – 13m; < 5"*
30%	B	Mid-Closed	Mid-seral closed overstory	n/a	10 – 99 yrs	*10– 25m; 5 – 9"*
7%	C	Late-Open	Mature forest with gaps; American beech, sugar maple, tulip poplar...	<81%	100 –140 yrs	*25 – 35m; 21 – 33"*
21%	D	Late-Closed	Closed canopy; American beech, sugar maple, tulip poplar...	>80%	100 –140 yrs	*25 – 35m; >33 "*
38%	G	Late2-Closed	Old growth closed canopy	n/a	>140 yrs	
Dry Oak Forest 5713170 – Allegheny-Cumberland Dry Oak Forest & Woodland - Modified (p. 19-24)						
10%	A	Early	Mixed oaks with grass-herb patches, few sprouting shrubs	n/a	<20 yrs	*n/a*
15%	B	Mid-Closed	Mixed oak forest, old tree fall gaps dominated by maple or white pine, ericaceous shrubs with high cover	>59%	20 – 69 yrs	*0 – 3 m; <5"*
31%	C	Mid-Open	Open oak-forest and woodland with grass-herb patches, old tree fall gaps dominated by oak, sparse ericaceous shrubs	<60%	20 – 69 yrs	*5 – 10m; 9 – 21"*
15%	D	Late-Open	Open oak-forest and woodland, tree fall gaps and grass-herb patches common, shrubs sparse	<66%	70 – 110 yrs	*5 – 25m; 9 – 21"*
8%	E	Late-Closed	Mixed oak-maple-white pine forest with dense ericaceous shrub layer	>65%	70 – 110 yrs	*5 – 25m; 9 – 21"*
7%	F	Late2-Open	Old growth oak woodland, tree fall gaps and grass-herb patches common, sparse shrubs	<66%	>110 yrs	
14%	G	Late2-Closed	Old growth mixed oak-maple-white pine forest with dense ericaceous shrub layer	>65%	>110 yrs	
Dry-Mesic Oak Forest 5713150 – Southern Appalachian Oak Forest (p. 6-11)						
7%	A	Early	Oaks mixed with subcanopy and shrub species and herbs	n/a	<20 yrs	*0 – 10m; <5"*
15%	B	Mid-Closed	Mid-seral closed; old treefall gaps with closed canopy	>60%	20 – 69 yrs	*10 – 25m; 9 – 21"*
25%	C	Mid-Open	Mid-seral open woodland with open midstory	<61%	20 – 69 yrs	*10 – 25m; 9 – 21"*
23%	D	Late-Open	Late-seral open forest with open midstory	<81%	70 – 130 yrs	*25 – 50m; 21 – 33"*
13%	E	Late-Closed	Late-seral closed canopy forest	>80%	70 – 130 yrs	*25 – 50m; 21 – 33"*

11%	F	Late2-Open	Old growth open oak forest with open midstory	<81%	>130 yrs	
6%	G	Late2-Closed	Old growth closed canopy mixed oak-maple-white pine forest with well-established midstory	>80%	>130 yrs	
Low-Elevation Pine Forest 5713530 – Southern Appalachian Low-Elevation Pine Forest (p. 59-64)						
32%	A	Early	Dense seeding & sapling w variable herbaceous/woody understory veg	n/a	<11 yrs	*0 – 5m; <5"*
2%	B	Mid-Closed	Poletimber & small sawtimber dominated by Va. pine	>50%	11– 30 yrs	*5 – 10m; 5 – 9"*
32%	C	Mid-Open	Canopy dominated by shortleaf pine relatively open w grassy understory	<51%	11– 30 yrs	*5 – 25m; 5 – 9"*
33%	D	Late-Open	Canopy dominated by shortleaf pine; some open parklike stands	<71%	>30 yrs	*25 – 50m; 9 – 21"*
1%	E	Late-Closed	Small sawtimber dominated by Va. Pines w gaps from tree mortality	>70%	>30 yrs	*10 – 25m; 9 – 21"*
Montane Pine Forest & Woodland 5713520 – Southern App. Montane Pine Forest & Woodlands (p. 50-58)						
12%	A	Early	Very dense regen of seedlings/saplings and coppice	n/a	<15 yrs	*0 – 5 m; <5"*
3%	B	Mid-Closed	Mid-seral, closed dominated by dense oak & pine saplings	>70%	16 – 70 yrs	*5 – 10m; 9 – 21"*
25%	C	Mid-Open	Mid-seral, open canopy; pines equal or more dominant than oaks	<71%	16 – 70 yrs	*5 – 10m; 9 – 21"*
55%	D	Late-Open	Late-seral, open canopy, pine to pine-oak	<71%	>70 yrs	*10 – 25m; 21 – 33"*
5%	E	Late-Closed	Late-seral, closed canopy; pine-oak dominated overstory	>70%	>70 yrs	*10 – 25m; 21 – 33"*
Montane Red Oak-Chestnut Oak Forest New BpS (incorporates Central & Southern Appalachian Montane Oak)						
7%	A	Early	Treefall gaps & small-medium patches with saplings & small trees	n/a	<20 yrs	*0 – 13m; < 9"*
26%	B	Mid-Closed	Mid-seral closed forest with well-developed mid-story	>60%	20 – 79 yrs	*10 – 25m; 9 – 21"*
20%	C	Mid-Open	Mid-seral fairly open forest w open mid-story & patchy shrub/herb	<61%	20 – 79 yrs	*10 – 25m; 9 – 21"*
12%	D	Late-Open	Late seral with open canopy gaps; dominated by oaks & hickory	<81%	80 – 130 yrs	*25 – 35m; 21 – 33+"*
18%	E	Late-Closed	Late seral w few canopy gaps; closed mid and understory w red maple/white pine & little oak regen	>80%	80 – 130 yrs	*25 – 35m; 21 – 33+"*
2%	F	Late2-Open	Old growth open oak-hickory forest with open canopy gaps	<81%	>130 yrs	
14%	G	Late2-Closed	Old growth closed canopy mixed – hardwood forest, shade tolerant mid-canopy tree common	>80%	>130 yrs	

Northern Hardwood Forest 5713090 – Appalachian Northern Hardwood (p. 43-49)						
9%	A	Early	Typical gap replacement, mostly singe to multiple tree-sized gaps	n/a	<25 yrs	*0 – 5 m; <5"*
18%	B	Mid-Closed	Typical stand development after tree to stand replacement events	n/a	25 – 75 yrs	*5 – 10m; 9-21"*
69%	C	Late-Closed	Dense, closed forest-yellow birch, Fraser fir, red spruce, Am. beech	>80%	>75 yrs	*10 – 25m; 21-33"*
4%	D	Late-Open	More open stands of n. hardwoods (especially red oak)	<81%	>75 yrs	*5 – 50m; 21-33"*
Riparian and Floodplain Systems 5713720 – Central Interior and Appalachian Riparian Systems (p. 100-110)						
15%	A	Early	Tree fall gaps with saplings and small trees	n/a	<20 yrs	*0 – 10 m; 5 – 9"*
23%	B	Mid-Closed	Old treefall gaps & other distur-bance areas, with a closed canopy	>70%	20 – 69 yrs	*10 – 25m; 9 – 21"*
13%	C	Mid-Open	Similar to B but more open, w/o well-developed mid/understory	<71%	20 – 69 yrs	*10 – 25m; 9 – 21"*
40%	D	Late-Open	More closed canopy than C with minimal mid/understory	<70%	>69 yrs	*25 – 50m+; 21 – 33"*
9%	E	Late-Closed	Closed hardwood canopy (syca-more, beech, sugarberry, river birch	>71%	>69 yrs	*25 – 50m+; 21 – 33"*
Spruce-Fir Forest 5713500 – Central & Southern Appalachian Spruce-Fir Forest (p. 43-49)						
18%	A	Early	Typical gap-replacement species dominated by pioneer hardwoods	n/a	<35 yrs	*0 – 10m; 5 – 9"*
13%	B	Mid-Closed	Hardwoods dominate upper canopy & conifers increasing in mid-story	>70%	36 – 65 yrs	*10 – 25m; 9 – 21"*
11%	C	Mid-Open	More open stands dominated by hardwoods; spruce/fir seed source	<71%	36 – 65 yrs	*10 – 25m; 21 – 33"*
58%	D	Late-Closed	Dense, closed mature forest dom. by spruce &/or fir (w hardwoods)	n/a	>65 yrs	*25 – 50m; 21 – 33"*

Uncharacteristic Vegetation Classes As found across various ecological systems, as cited below			
Class Code	**Vegetation**	**Description**	**If Found In**
U-WP	White Pine	Stands dominated by white pine (> 70% cover)	Any system except Montane pine or Low-elevation pine
U-YP	Yellow Poplar	Stands dominated by yellow poplar (> 70% cover)"	Any system except Cove forest
U-BR	Brush, Shrubs	Brush, mountain laurel or rhododendron occurring as dominant species in forests or woodlands	Any system except Balds
U-OD	Oak-dominated pine	White oak-red oak-hickory; yellow-poplar-white oak-red oak; or chestnut oak-scarlet oak occurring as dominant communities in pine systems	Montane pine or Low-elevation pine
U-PD	Pine-dominated oak	Table mountain pine, pitch pine, or shortleaf pine occurring as dominant communities in oak systems	Any oak system
U-SF	Uncharacteristic Vegetation in Spruce-Fir	Where current vegetation in Spruce-Fir biophysical set-ting is <u>not</u> dominated by spruce, i.e. where forest type is NOT red spruce-fraser fir or red spruce-no. hardwood	Spruce-Fir

Footnotes

[1] NRV was taken directly from LANDFIRE descriptions or was re-calculated for oak & cove systems based upon recommended changes in ages and disturbances by the oak panel. NRV is calculated using Vegetation Dynamics Development Tool (VDDT) software simulations over 1000 years.

[2] Descriptions, Height and DBH, are excerpted from the LANDFIRE model descriptions. Description for Dry Oak was modified by Steve Simon to reflect local conditions. LANDFIRE Height and DBH data are provided for descriptive purposes, but were not used for the ecological models or accounting for Cherokee NF vegetation classes.

[3] Cover Percentages are from LANDFIRE models or oak panel recommendations, with modifications by Steve Simon as needed to develop mutually exclusive rules for queries from Cherokee NF data sources.

[4] Ages are from LANDFIRE models or oak panel recommendations; old growth class ages are based upon Forest Service old growth age recommendations.