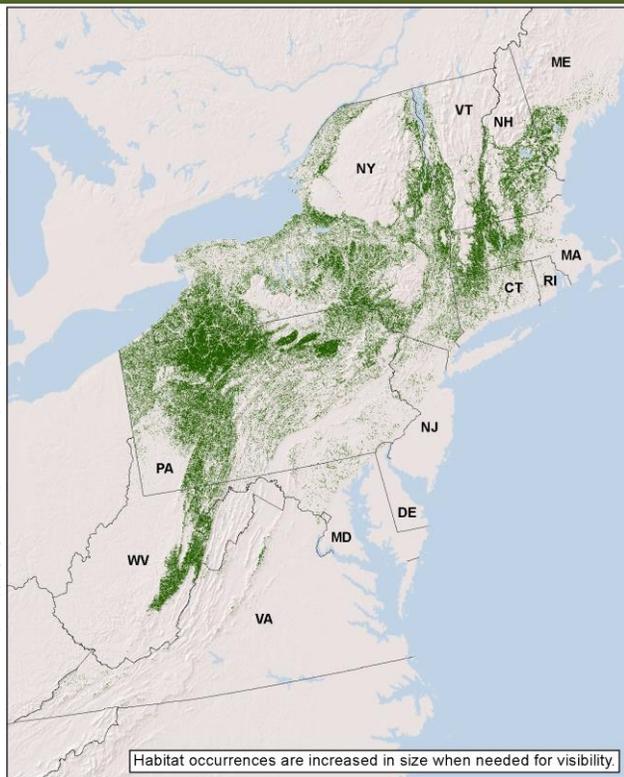


# Appalachian (Hemlock)-Northern Hardwood Forest



## Macrogroup: Northern Hardwood & Conifer

This map is a modeled distribution based on current data and is not a substitute for field based inventory. Contact your State Natural Heritage Ecologist for more information about this habitat.



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### Description:

A hardwood forest of sugar maple, american beech, and yellow birch, sometimes mixed with, and sometimes dominated by, eastern hemlock. Northern red oak and white oak occur commonly, but do not dominate. Black cherry, black birch, white pine, and tuliptree are typical on nutrient rich or historically disturbed sites. This forest system is broadly defined, and is the only one to occur in at least parts of all 13 states of the Northeast and Mid-Atlantic. It is the dominant forest type in the central and northern part of its range (Allegheny Mountains northward through central New England), and occurs as smaller patches in more protected locations to the south.

**State Distribution:** CT, DC, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VA, VT, WV

**Total Habitat Acreage:** 20,995,362

**Percent Conserved:** 20.1%

| State | State Habitat % | State Acreage | GAP 1&2 (acres) | GAP 3 (acres) | Unsecured (acres) |
|-------|-----------------|---------------|-----------------|---------------|-------------------|
| PA    | 39%             | 8,222,612     | 277,012         | 1,806,913     | 6,138,687         |
| NY    | 34%             | 7,076,972     | 152,324         | 658,583       | 6,266,065         |
| NH    | 6%              | 1,198,529     | 27,144          | 159,115       | 1,012,270         |
| MA    | 5%              | 1,146,700     | 28,973          | 293,801       | 823,926           |
| WV    | 5%              | 1,124,973     | 87,413          | 350,843       | 686,717           |
| VT    | 3%              | 618,372       | 11,962          | 31,754        | 574,655           |
| CT    | 3%              | 584,654       | 33,138          | 82,288        | 469,229           |
| ME    | 2%              | 458,159       | 4,591           | 19,974        | 433,594           |
| MD    | 1%              | 282,180       | 22,613          | 51,901        | 207,666           |
| VA    | 1%              | 137,971       | 46,141          | 23,812        | 68,018            |
| NJ    | 1%              | 127,379       | 35,274          | 8,106         | 84,000            |
| RI    | 0%              | 11,945        | 435             | 4,496         | 7,014             |
| DE    | 0%              | 3,633         | 40              | 1,308         | 2,285             |
| DC    | 0%              | 1,283         | 0               | 0             | 1,283             |

### Crosswalk to State Name Examples:

Cove Forest (CT), Northern Hardwoods-Hemlock-White Pine Forest (MA), Eastern Hemlock - Hardwood Forest (MD), Hemlock Forest (ME), Hemlock - Oak - Northern Hardwood Forest (NH), Mesic Hemlock-Hardwood Forest (NJ), Hemlock-Northern Hardwood Forest (NY), Hemlock (White Pine) - Northern Hardwood Forest (PA), Appalachian Hemlock - Northern Hardwood Forest (VA), Northern Hardwood Forest - Hemlock-Northern Hardwood Forest (VT), Hemlock Forests (WV)

### Ecological Setting and Natural Processes:

This habitat type is an ecological generalist in much of its range, occupying low to mid-elevations on a variety of landforms and bedrock types. Drier, typic, and moist/cool variants occur along a gradient from higher, more exposed sites to lower, more protected ones. To the south, the hemlock wooly adelgid and a warming climate may push this system to more closely resemble Southern Appalachian Oak Forests.

### Similar Habitat Types:

The hardwood mix in this system has a more Appalachian character than those found in cooler Laurentian-Acadian Northern Hardwood Forests. The L-A Pine-Hemlock-Hardwood Forest is similar to this system, but also favors cooler settings. Northeastern Coastal and Interior Pine-Oak Forest replaces it in lower relief areas on the coastal plain, and is more pine-rich.

### Crosswalk to State Wildlife Action Plans:

Upland Forest - Coniferous Forests (CT), Upland Forest (MA), Northern Conifer - Hardwood Forests (MD), Deciduous and Mixed Forest (ME), Hemlock Hardwood Pine Forests (NH), Upland forests - mixed deciduous-coniferous forest (NJ), Mixed Northern Hardwoods (NY), Deciduous/Mixed Forest (upland) (PA), Deciduous Forests - Deciduous Forest Beech-Maple (RI), Forest Habitat - Mixed Forest (VA), Northern Hardwood Forest - Hemlock-Northern Hardwood Forest (VT), Hemlock forests (WV)

## Places to Visit this Habitat:

Tunxis State Forest | CT  
 Savage River State Forest | MD  
 Allegany State Park | NY  
 Allegheny National Forest Non-Reserved | PA  
 Monongahela National Forest | WV

## Associated Species: *Appendix lists scientific names*

**BIRDS:** barred owl, Blackburnian warbler, black-throated blue warbler, black-throated green warbler, chesnut-sided warbler, eastern wood-pewee, hermit thrush, Louisiana waterthrush, ovenbird, ruffed grouse, scarlet tanager, wood thrush

**MAMMALS:** black bear, fisher, gray fox, northern flying squirrel, porcupine, smoky shrew, southern flying squirrel, white-footed mouse, woodland jumping mouse

**HERPTILES:** northern redbelly snake

**PLANTS:** broad beech fern (*Thelypteris hexagonoptera*), flowering dogwood (*Cornus florida*), four-leaved milkweed (*Asclepias quadrifolia*), perfoliate bellwort (*Uvularia perfoliata*), round-leaved tick trefoil (*Desmodium rotundifolium*), spicebush (*Lindera benzoin*), squawroot (*Conopholis americana*), pinedrops (*Pterospora andromedea*)

## Species of Concern (G1-G4): *Appendix lists scientific names*

**BIRDS:** brown creeper, Canada warbler, northern goshawk

**MAMMALS:** Allegheny woodrat, Indiana myotis, southern rock vole, southern water shrew, Virginia northern flying squirrel

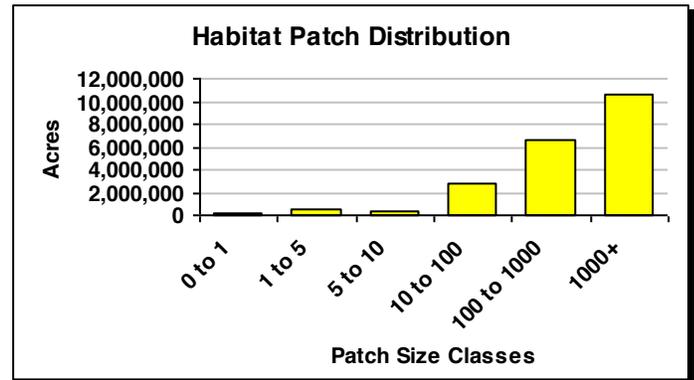
**HERPTILES:** Cheat Mountain salamander, eastern massasauga, green salamander, mountain earth snake, northern spring salamander

**INSECTS:** early hairstreak butterfly, spicebush swallowtail butterfly, west Virginia white

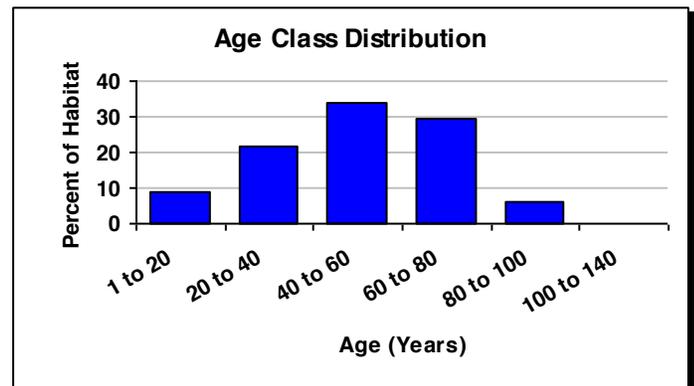
**PLANTS:** American ginseng (*Panax quinquefolius*), Appalachian blue violet (*Viola appalachiensis*), black bugbane (*Actaea racemosa*), Case's ladies'-tresses (*Spiranthes casei*), hairy beardtongue (*Penstemon hirsutus*), Laurentian bladder fern (*Cystopteris laurentiana*), mountain bugbane (*Actaea podocarpa*), small skullcap (*Scutellaria parvula*)



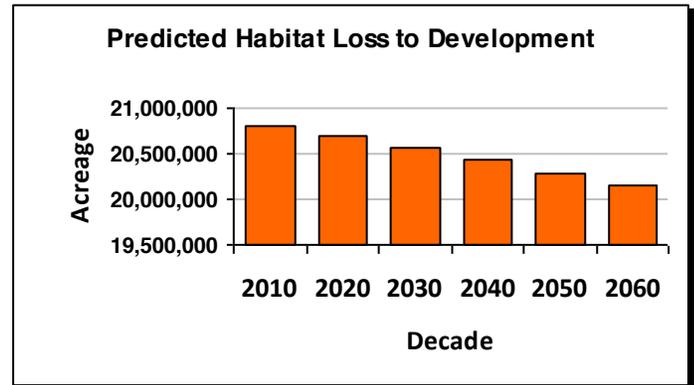
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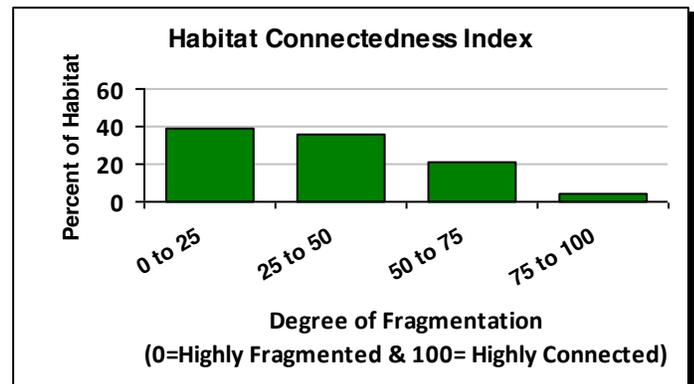
The average patch size for this habitat is 19 acres and the largest single patch is 39,064 acres. This chart shows the proportion of the habitat that is in each patch-size class.



This chart shows the average age of trees associated with this habitat based on forest inventory data. For non-forested systems or small habitats the average age is influenced by the surroundings.



This chart shows the predicted loss of habitat over the next five decades (667,316 acres) if loss continues at the same rate as 1990-2000. The average rate of loss is 13,346 acres per year.



This metric measures how connected or fragmented the land directly surrounding (18 square miles) the habitat is, this chart shows the proportion of the habitat in each connectedness class.