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# Chestnut Oak / Mountain Laurel Forest at Harpers Ferry

## Overview Page

Code: CEGL006299

**Scientific Name:** *Quercus prinus - (Quercus coccinea, Quercus rubra) / Kalmia latifolia / Vaccinium pallidum* Forest

**Translated Name:** Chestnut Oak - (Scarlet Oak, Northern Red Oak) / Mountain Laurel / Hillside Blueberry Forest

**Common Name:** Central Appalachian / Northern Piedmont Chestnut Oak Forest

### At A Glance

This forest type is found at limited areas at Harpers Ferry. It is restricted to dry, sunny, middle and upper slopes and ridge crests with very dry site conditions. The soils are dry, acidic and rocky, with a surface of root-matted, poorly decomposed organic matter. The number of different plant species that call it home very limited. Forests dominated by chestnut oak and mountain laurel are some of the most dry and exposed in the park. Like several other forest types at Harpers Ferry, many of the biggest trees in the canopy of the **Chestnut Oak / Mountain Laurel Forest** are oaks. In this case, chestnut oak is the strong dominant, sometimes with scarlet oak (which is a better indicator) and/or northern red oak. Mountain laurel heavily dominates the taller understory shrubs, possibly with the lower shrubs Blue Ridge blueberry, deerberry, and black huckleberry in patches where mountain laurel is absent. This forest is found on a few of of the park’s dry upper slopes. It primarily grows in [*soil*](http://www.explorenaturalcommunities.org/glossary/term/205) weathered from [*acidic*](http://www.explorenaturalcommunities.org/glossary/term/30) [*bedrock*](http://www.explorenaturalcommunities.org/glossary/term/38). Mosses and reindeer lichens may also cover extensive patches.

### Images of this Natural Community

Community image:

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[many more in this folder]

### What to Look For:

Can you find this combination of characteristic features?

* A canopy containing primarily chestnut oak, but possibly with scarlet oak, northern red oak, or both.
* The [*understory*](http://www.explorenaturalcommunities.org/glossary/term/227) trees are usually limited to red maple and black gum, possibly with American beech.
* A shrub layer with a few heath family shrubs, including tall mountain laurel and shorter blueberries and huckleberries.
* A community typical of high, dry, nutrient-poor, west-facing slopes, higher on the slope than either the Dry-mesic Chestnut Oak – Northern Red Oak Forest or the Dry Chestnut Oak – Northern Red Oak / Heath Forest.

If so, welcome to HAFE’s **Chestnut Oak / Mountain Laurel Forest** Community.

### Tips to Distinguish this community from other similar communities:

This community can be readily identified by its dry, infertile sites and quite species-poor vegetation overwhelmingly dominated by chestnut oak and mountain laurel, with red maple and black gum abundant as understory trees. The absence of hickories and tuliptree also help distinguish this type from other nearby communities. For the most part, boundaries between stands of Chestnut Oak / Mountain Laurel Forest and other community types are fairly sharp.

1. Chestnut Oak-Mountain Laurel Forest vs. Dry Chestnut Oak – Red Oak / Heath Forest (CEGL008523)

Similarities: As their names would indicate, the Chestnut Oak-Mountain Laurel Forest has stronger dominance by chestnut oak than does the Chestnut Oak – Red Oak / Heath Forest, which is dominated by both of these oaks rather than by chestnut oak alone. The **Chestnut Oak / Mountain Laurel Forest** is predominantly chestnut oaks with dense patches of mountain laurel in the understory. The shrub layer is much less diverse, being primarily dominated by mountain laurel and Blue Ridge blueberry, and it is found in drier and in more exposed positions on more convex slopes.

1. Chestnut Oak-Mountain Laurel Forest vs. Dry-mesic Chestnut Oak – Red Oak Forest (CEGL006057)

These two communities are quite different from one another, but are sometimes adjacent in the field. Chestnut Oak-Mountain Laurel Forest primarily dominated by mountain laurel and Blue Ridge blueberry, and it is found in drier and in more exposed positions on more convex slopes , while the Dry Chestnut Oak-Northern Red Oak / Heath Forest is dominated by both Chestnut Oak and Northern Red Oak and typically has witch-hazel in its shrub layer rather than mainly mountain laurel and blueberries.

### Notable Variations at Harpers Ferry

### Conservation Status

To be autopopulated.

### Classification

To be autopopulated

## Where to See It Page

The best place to see this natural community is along the southwestern section of the Stone Fort Loop Trail (blue blaze), where it is extensively developed. There is one part of this trail where **Chestnut Oak / Mountain Laurel Forest** occupies the upper slope, and the Dry-mesic Chestnut Oak – Red Oak Forestis on the lower slopes below. In this area, there is a clear difference between these two communities, and at one spot the Dry-mesic Chestnut Oak – Northern Red Oak Forest is essentially below the trail, and and the **Chestnut Oak / Mountain Laurel Forest** is above.

## Seasonal Plant Highlights Page

#### Spring Highlights

Mountain laurel flowers in May; it is notable for its unusual method of dispensing its pollen. As the flower grows, the filaments of its stamens are bent and brought into tension. When an insect lands on the flower, the tension is released, catapulting the pollen forcefully onto the insect.

#### Summer Highlights

Full green of summer leaves; blueberries, flowers of spotted wintergreen (striped prince's pine)

#### Autumn Highlights

Change in leaf colors, black gum; white wood aster, white snakeroot, and other aster family plants in autumn.

#### Winter Highlights

Evergreen leaves of mountain laurel

## Seasonal Animal Highlights Page

#### Spring Highlights

?

#### Summer Highlights

#### Autumn Highlights

**?**

#### Winter Highlights

## Characteristic Species Page

### Canopy Trees

Like several other forest types at Harpers Ferry, many of the biggest trees in the canopy of the [**Chestnut Oak / Mountain Laurel Forest**](http://www.explorenaturalcommunities.org/natural-communities/cegl006299/rock-creek-park)are oaks.Unlike the similar Dry-mesic Chestnut Oak-Red Oak Forest, chestnut oak is usually the primary dominant, with northern red oak and scarlet oak typically of lesser importance. Scarlet oak is a better indicator, as northern red oak is found in several other communities. The understory is not as diverse as the Dry-mesic Chestnut Oak-Red Oak Forest but may also contain red maple and black gum.

### Understory Trees

There are only a few kinds of [*understory*](http://www.explorenaturalcommunities.org/glossary/term/227) trees, mainly red maple and black gum, with smaller chestnut oaks, which can reproduce in their own shade.

### Shrubs, Saplings, & Vines

There is extensive mountain laurel (an [*evergreen*](http://www.explorenaturalcommunities.org/glossary/term/73) shrub in the heath family) in the taller part of the shrub understory, with low blueberries and huckleberries ([*deciduous*](http://www.explorenaturalcommunities.org/glossary/term/61) shrubs in the heath family), and not much else. This is not a very diverse community.

### Low Plants (Field Layer)

Patches of low blueberries and huckleberries ([*deciduous*](http://www.explorenaturalcommunities.org/glossary/term/61) shrubs in the heath family) are the main things in the field layer, but you may also see other heath family herbs (such as spotted wintergreen or striped prince's pine, which is actually a very small woody shrub; and trailing arbutus). Some of the soils are so dry and infertile that their ground cover is mainly moss and reindeer lichen, which do not require much nutrient to grow.

### Characteristic Species

(Tag by season, common/occasional/invasive & non-native, and canopy/understory/ shrubs, saplings&vines/ herbs & ground layer)

|  |  |
| --- | --- |
| Layer | Common Species |
| Trees – Canopy  | chestnut oak, scarlet oak, northern red oak,  |
| Trees – Understory  | Red maple, black gum |
| Shrubs, Saplings & Vines | Mountain laurel, Blue Ridge blueberry, black huckleberry, deerberry |
| Low Plants (Field Layer) | spotted wintergreen or striped prince's pine, trailing arbutus, moss, reindeer lichen |

|  |  |
| --- | --- |
| Layer | Occasional Species |
| Trees – Canopy  |  |
| Trees – Understory  |  |
| Shrubs, Saplings & Vines |  |
| Low Plants (Field Layer) |  |

|  |  |
| --- | --- |
| Layer | Invasive & Non-native Species |
| Trees – Canopy  |  |
| Trees – Understory  |  |
| Shrubs, Saplings & Vines | n/a |
| Herbs/Ground layer |  |

### Non-native invasive plants:

 (see for more info).

### In brief:

### Plant Life

### Animal Life

## Physical Setting: Chestnut Oak / Mountain Laurel Forest at Harpers Ferry

### Indicator Plants

Chestnut oak, scarlet oak, mountain laurel, black huckleberry, trailing arbutus

### Stand Size

Typical stand = about 6-7 ha (14-17 acres)

### Landscape Position

Upper convex slopes

### Soils

Dry, rocky, infertile

### Geology

Weverton

### Physical Setting Full Description

The soils where this community is found are dry, rocky and infertile. Typical sites are upper slopes. The dense root mats of colonial heath shrubs and the dense shade of the mountain laurel thickets combine to create difficult conditions for the establishment of herbs. Stands of this community tend to have trees that are shorter than those of the forests of better sites.

### Natural Processes

Fires historically occurred in this community, in the past when people used fire more and it was harder to put out wildfires. The steam engines of the trains also caused fires, which could burn all the way up the hill. The composition and the landscape position of this community meant that fires had a great deal of effect on this community. When fires were more frequent, the community could have appeared very different from how it does today.

### Large-Scale Natural Processes and Ecological Systems

Leave this section for Mary or someone else.

### Explore this Ecological System

Leave this section for Mary or someone else.

### List of Threats

Generated list?

### List of Non-native invasive plant species

Generated list?

### Stewardship