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# Dry Chestnut Oak-Northern Red Oak / Heath Forest at Harpers Ferry

## Overview Page

Code: CEGL008523

**Scientific Name:** *Quercus prinus - Quercus rubra / Vaccinium pallidum - (Rhododendron periclymenoides)* Forest

**Translated Name:** Chestnut Oak - Northern Red Oak / Blue Ridge Blueberry – (Pink Azalea) Forest

**Common Name:** Central Appalachian Dry Chestnut Oak - Northern Red Oak / Heath Forest

### At A Glance

This somewhat common forest type at Harpers Ferry is found on sites that are dry but not as dry and rocky as the Chestnut Oak – Mountain Laurel Forest. The number of different plant species that call it home is neither very limited nor very extensive. Like the Dry-mesic Chestnut Oak-Red Oak Forest, it will be higher on the slope than the rich mesic or cove forests, but not as high, dry, and exposed as the forests dominated by chestnut oak and mountain laurel. It will be intermediate between the dry and nutrient-poor sites of Chestnut Oak / Mountain Laurel Forest and the somewhat sheltered, slightly richer sites of Dry-Mesic Chestnut Oak - Red Oak Forest.

Like several other forest types at Harpers Ferry, many of the biggest trees in the canopy of the **Dry Chestnut Oak-Red Oak / Heath Forest** are oaks. Unlike the [Chestnut Oak / Mountain Laurel Forest](http://www.explorenaturalcommunities.org/natural-communities/cegl006299/rock-creek-park), both northern red oaks and chestnut oaks are present. In contrast to the Dry-mesic Chestnut Oak-Red Oak Forest, it has several heath family shrubs present in its understory, including pink azalea and Blue Ridge/hillside blueberry, as well as mapleleaf viburnum. Mountain laurel may be present, but it will not heavily dominate the shrubs as it does in the Chestnut Oak – Mountain Laurel Forest. The diverse canopy also contains black oak, white oak and hickories, with sassafras and black gum. The diverse [*understory*](http://www.explorenaturalcommunities.org/glossary/term/227) also includes sassafras and black gum, with red maple and American beech. There are several heath family shrubs, including pink azalea and Blue Ridge/hillside blueberry, as well as mapleleaf viburnum, present in the shrub layer, and some mountain laurel, but not as a dominant. This forest is found on many of the park’s 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), with low amounts of calcium and other minerals that plants like.

### Images of this Natural Community

Community image:

U:\Images\NCR\_photos\Field Guides\

[many more in this folder]

### What to Look For:

Can you find this combination of characteristic features?

* A canopy containing both northern red oaks and chestnut oaks, with some black oak, white oak and hickories, also with red maple and black gum.
* A group of dry habitat [*understory*](http://www.explorenaturalcommunities.org/glossary/term/227) trees, including sassafras and black gum, with red maple and American beech.
* A shrub layer with several heath family shrubs, including pink azalea and Blue Ridge/hillside blueberry, as well as mapleleaf viburnum.
* Mountain laurel may be present, but will not be dominant
* A community generally higher on the slope than the Dry-mesic Chestnut Oak – Red Oak Forest, but not as high, dry, and exposed as the forests dominated by chestnut oak and mountain laurel

If so, welcome to HAFE’s **Dry Chestnut Oak-Red Oak / Heath Forest** Community.

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

1. Dry Chestnut Oak – Red Oak / Heath Forest vs. Chestnut Oak-Mountain Laurel Forest (CEGL006299)

Similarities: As its name would indicate, the **Dry Chestnut Oak – Red Oak / Heath Forest** is dominated by both of these oaks rather than by chestnut oak alone. The shrub layer is also more diverse, usually containing including pink azalea and mapleleaf viburnum as well as mountain laurel and blueberries. The **Chestnut Oak / Mountain Laurel Forest,** on the other hand, is predominantly chestnut oak-dominated, with dense patches of mountain laurel in the understory. It is less diverse, and found in drier and in more exposed positions on more convex slopes.

1. Dry Chestnut Oak-Northern Red Oak / Heath Forest vs. Dry-mesic Chestnut Oak – Red Oak Forest (CEGL006057)

These two communities are somewhat similar and may intergrade into one another, as on parts of Loudoun Heights Trail. Both of them are dominated by both Chestnut Oak and Northern Red Oak, but the **Dry Chestnut Oak-Northern Red Oak / Heath Forest** will have a greater proportion of mountain laurel and blueberries, with other shrubs including maple-leaved Viburnum and pink azalea. Patches of wild sarsaparilla or hay-scented fern may be present in the field layer. Its slightly moister relative, Dry-mesic Chestnut Oak – Red Oak Forest will typically have extensive patches of witch-hazel, with some mountain laurel and blueberries.

1. Dry Chestnut Oak-Northern Red Oak / Heath Forest vs. Basic Oak-Hickory Forest (CEGL008514)

In contrast to **Dry Chestnut Oak-Northern Red Oak / Heath Forest**, the Basic Oak-Hickory Forest will be dominated by a mixture of oaks, particularly white oak, with hickories as reliable components in the canopy and understory, including shagbark hickory, red hickory, bitternut hickory, and pignut hickory. In addition to white oak, the oaks may include black oak, northern red oak, and chestnut oak, which may be present but not dominant. Other canopy or understory indicator trees include white ash and sugar maple.

### Notable Variations at Harpers Ferry

### Conservation Status

To be autopopulated.

### Classification

To be autopopulated

## Where to See It Page

This natural community is extensively developed along the northwestern section of the Stone Fort Loop Trail (blue blaze). There is one part of this trail which alternately passes through areas of **Dry Chestnut Oak – Northern Red Oak / Heath Forest** and Basic Oak-Hickory Forest. At one spot the Dry Chestnut Oak – Northern Red Oak / Heath Forest is essentially below the trail, and and the Basic Oak-Hickory Forest is above.

In addition, one passes through extensive areas of this forest community on the Loudoun Heights Trail, mainly south of Chestnut Hill Road, where it alternates and intermingles with Dry-mesic Chestnut Oak- Red Oak Forest.

## Seasonal Plant Highlights Page

#### Spring Highlights

Spring wildflowers; Solomon’s plume; pinkish-purple redbud flowers

#### Summer Highlights

Full green of summer leaves; blueberries, flowers of spotted wintergreen (striped prince's pine), naked-stem tick-trefoil.

#### Autumn Highlights

Change in leaf colors, oaks, hickories, sugar maple; white wood aster, white snakeroot, and other aster family plants in autumn.

#### Winter Highlights

Evergreen leaves of ferns; Christmas fern, marginal shield fern

## 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 **Dry-mesic Chestnut Oak-Red Oak Forest** are oaks.Unlike the similar [Chestnut Oak / Mountain Laurel Forest](http://www.explorenaturalcommunities.org/natural-communities/cegl006299/rock-creek-park), there are both northern red oaks and chestnut oaks. The canopy is reasonably diverse and may also contain hickories, tuliptree, black gum, red maple, and other trees.

### Understory Trees

It has a diverse group of [*understory*](http://www.explorenaturalcommunities.org/glossary/term/227) trees, including pawpaw, hop-hornbeam, American beech, and dogwood. Slender common pawpaw is distinctive because of its long leaves with pointed tips and brown velvety leaf buds that crown each twig-tip like a delicate paintbrush. Mature common pawpaw bears beautiful but rather foul-smelling maroon flowers in spring that attract specific pollinators—especially carrion flies. In fall, its sweet fruit attracts the likes of raccoons, squirrels, birds… and people.

### Shrubs, Saplings, & Vines

There is extensive witch-hazel in the well developed shrub layer, in addition to blueberries ([*deciduous*](http://www.explorenaturalcommunities.org/glossary/term/61) shrubs in the heath family), and not much mountain laurel (an [*evergreen*](http://www.explorenaturalcommunities.org/glossary/term/73) shrub in the heath family).

### Low Plants (Field Layer)

### Characteristic Species

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

|  |  |
| --- | --- |
| Layer | Common Species |
| Trees – Canopy  | northern red oak, chestnut oak |
| Trees – Understory  | red hickory, sugar maple, American beech |
| Shrubs, Saplings & Vines | witch-hazel, pawpaw |
| Low Plants (Field Layer) | white wood aster, marginal shield fern, white snakeroot, Christmas fern |

|  |  |
| --- | --- |
| Layer | Occasional Species |
| Trees – Canopy  | Red maple, black gum |
| Trees – Understory  | Dogwood, sassafras, black locust |
| Shrubs, Saplings & Vines | blueberries, black huckleberry |
| Low Plants (Field Layer) | Solomon’s plume, tall wild lettuce, wild sarsaparilla, hay-scented fern |

|  |  |
| --- | --- |
| Layer | Invasive & Non-native Species |
| Trees – Canopy  |  |
| Trees – Understory  |  |
| Shrubs, Saplings & Vines | Japanese honeysuckle |
| Herbs/Ground layer | Garlic mustard |

### Non-native invasive plants:

 (see [**http://www.fs.fed.us/invasivespecies/speciesprofiles/documents/garlic\_mustard.pdf**](http://www.fs.fed.us/invasivespecies/speciesprofiles/documents/garlic_mustard.pdf) for more info).

### In brief:

### Plant Life

### Animal Life

## Physical Setting: Dry Chestnut Oak-Northern Red Oak / Heath Forest at Harpers Ferry

### Indicator Plants

northern red oak, chestnut oak, mapleleaf viburnum

### Stand Size

### Landscape Position

### Soils

### Geology

### Physical Setting Full Description

This is a somewhat common forest type at Harpers Ferry, and is found on average sites that are neither dry nor moist and rich. The number of different plant species that call it home is neither very limited nor very extensive. It will be higher on the slope than the rich mesic or cove forests, but not as high, dry, and exposed as the forests dominated by chestnut oak and mountain laurel. It also tends to be on slightly concave, not convex topographies. This forest is found on many of the park’s dry-mesic 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).

### Natural Processes

fire

### 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