

***Quercus alba* / *Kalmia latifolia* Forest**

COMMON NAME White Oak / Mountain Laurel Forest
SYNONYM High Elevation White Oak Forest
PHYSIOGNOMIC CLASS Forest (I)
PHYSIOGNOMIC SUBCLASS Deciduous forest (I.B)
PHYSIOGNOMIC GROUP Cold-deciduous forest (I.B.2)
PHYSIOGNOMIC SUBGROUP Natural/Semi-natural (I.B.2.N)
FORMATION Lowland or submontane cold-deciduous forest (I.B.2.N.a)

ALLIANCE *Quercus alba* Montane Forest Alliance

CLASSIFICATION CONFIDENCE LEVEL 2

USFWS WETLAND SYSTEM Upland

RANGE

Globally

This community is found in the mountains of Georgia, North Carolina, South Carolina, and Tennessee.

Great Smoky Mountains National Park

This community was not sampled or observed on the Cades Cove or Mount Le Conte quadrangles. Similar vegetation may occur in the southern portion of the Cades Cove quadrangle.

ENVIRONMENTAL DESCRIPTION

Globally

This forest grows on exposed, rocky ridges and convex upper slopes at high elevations (> 3000 feet).

Great Smoky Mountains National Park

No information

MOST ABUNDANT SPECIES

Globally

Stratum Species
No information

Great Smoky Mountains National Park

Stratum Species
No information

CHARACTERISTIC SPECIES

Globally

Quercus alba, *Kalmia latifolia*, *Castanea dentata*, *Castanea pumila*

Great Smoky Mountains National Park

No information

VEGETATION DESCRIPTION

Globally

Quercus alba-dominated forests on exposed, rocky ridges and convex upper slopes at high elevations (> 3000 feet). The shrub stratum is dominated by *Kalmia latifolia*, occurring as patches or with continuous cover (>25 percent). In some parts of this forest's range, *Gaylussacia ursina* is dominant in the often dense low-shrub stratum. Herbaceous cover is typical of xeric *Quercus*-and-*Carya*-dominated forests in the area, with *Carex pensylvanica*, *Chimaphila maculata*, *Euphorbia corollata*, *Galax urceolata*, *Galium latifolia*, *Goodyera pubescens*, *Hexastylis shuttleworthii*, *Iris verna* var. *smalliana*, *Medeola virginiana* typical. The shrub/sapling stratum often has a high coverage of *Castanea* stump sprouts and also includes *Castanea pumila*, *Sassafras albidum*, *Oxydendrum arboreum*, and *Nyssa sylvatica*.

Great Smoky Mountains National Park

No information

OTHER NOTEWORTHY SPECIES

No information

CONSERVATION RANK G2Q

RANK JUSTIFICATION

This community is uncommon and restricted to specific habitat conditions. Its taxonomy is questionable.

DATABASE CODE C EGL007295

COMMENTS

Globally

These forests are related to oak - hickory forests and may be best considered as a variant of them. On some sites these forests are transitional to *Quercus rubra*-dominated forests (High Elevation Red Oak Forest). See Chattooga Basin Project data.

Great Smoky Mountains National Park

Vegetation similar to this association was sampled on the Cades Cove quadrangle but was classified as *Quercus alba* - *Quercus (rubra, prinus) / Rhododendron calendulaceum - Kalmia latifolia - (Gaylussacia ursina)* Forest (CEGL007230).

REFERENCES

McCormick and Platt 1980, Newell and Peet 1995, Patterson 1994, Schafale and Weakley 1990