

**Closer to home — one of  
the most revered trees  
of the world is the  
MIGHTY oak**



# OAK TREE





**Most trees live in groups and are the dominant life form of what we call a forest.**

**There are many kinds of forests.**

Two of the common categories of forests that are found in North America are:

Deciduous temperate forest (broad-leaved flowering trees)

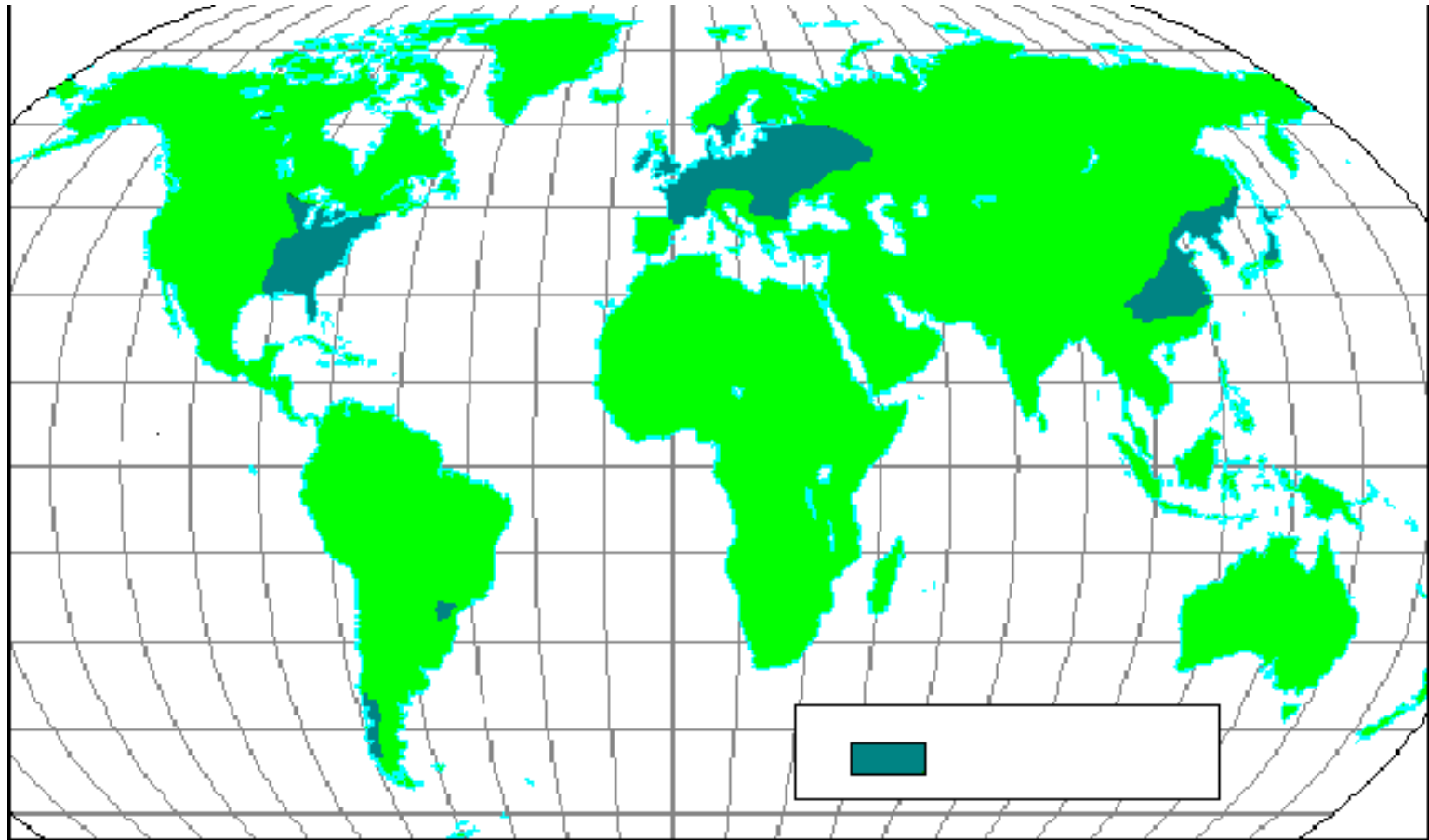
Boreal forest (conifers)

Deciduous Temperate forests have broad-leafed trees that lose their leaves every fall as the days get shorter and colder.

These forests have adapted to their environment by losing their leaves in preparation for winter conditions.

Temperate deciduous forests or temperate broad-leaf forests are dominated by trees that lose their leaves each year. They are found in areas where warm, moist summers alternate with moderate winters. The three major areas of this forest type occur in the northern hemisphere: eastern North America, eastern Asia, and Europe. Smaller areas occur in Australasia and southern South America. Examples of typical trees include oak, maple, beech, and elm. The diversity of tree species is higher in regions where the winter is milder, and also in mountainous regions that provide an array of soil types and microclimates. One of the world's great protected examples of this forest type is found in Great Smoky Mountains National Park

# Deciduous Temperate forests in the world



## What Is Going On In A Temperate Deciduous Forest?

The most obvious change is the seasonal appearance and disappearance of the canopy ( all the leaves in the crowns of the trees). Shade from the canopy limits the growth of many kinds of plants; many plants that are typical of these forests time their growth and flowering to the short period just before the canopy opens. These plants are known as spring ephemerals (ephemeral means short-lived). Examples include trilliums, jack in the pulpit, and bloodroot. Most are insect-pollinated. The seeds themselves are often transported by ants, a mode of dispersal known as myrmecochory. There are a smaller number of species able to grow under the canopy like lady's slippers, and even a few that grow during the period when leaves are being lost. Many of the plants have leaf adaptations to cope with low light levels, and the need to exploit rays of light reaching the forest floor.

The yellow lady's slipper  
*Cypripedium parviflorum* is a native of New England. It grows in the damp sparse understory of a hardwood forest. It puts up a shoot in early spring before the leaves of the hardwood trees have emerged from their buds. These lady's slippers reproduce asexually by rhizomes more often than by seed. When the leaves have fully emerged, the flowers of these plants are beginning to go to seed and the flower is in decline.





*Erythronium americanum* (Trout lily, Yellow trout lily, Yellow dogtooth violet) is a herbaceous flowering plant in the family Liliaceae. The common name "Trout lily" arises from the appearance of its gray-green leaves mottled with brown or gray, which allegedly resemble the coloring of brook trout. It blooms in early spring with nodding one-inch yellow flowers, the petals and petal-like sepals recurved upward. Each plant sends up a single flower stem with a pair of leaves. Trout lilies grow in colonies that can be up to 300 years old. The range is southern Canada south to Georgia, west to Mississippi, and north to Minnesota. (wiki)



## *Trillium erectum*

Trillium is a genus of about 40–50 species of spring ephemeral perennials

Purple trillium is another early spring flower in the woodlands of New England. It is considered a spring ephemeral.





Coltsfoot *Tussilago farfara* is an invasive species

