



## *Betula nigra* River Birch<sup>1</sup>

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### INTRODUCTION

River birch can grow 50 to 90 feet tall but is often seen 40 to 50 feet (Fig. 1). It normally grows with a central leader and small-diameter, dark-colored lateral branches. It has a narrow, oval to pyramidal crown when young, spreading wider with age as several branches become dominant. It lacks the white trunk bark associated with other birches but is distinguished by reddish, brown bark peeling off in film-like papery curls providing interest all year round. River birch can be easily trained with one central leader or as a multi-stemmed tree. Some nurseries plant two or three trees together to form a clump, but these trunks will not fuse into one strong trunk. Should be grown more as a single-trunked specimen. Branches droop particularly when they are wet, so regular pruning in the early years will be required to remove lower branches when they are located close to areas where clearance is needed for vehicular traffic.

### GENERAL INFORMATION

**Scientific name:** *Betula nigra*

**Pronunciation:** BET-yoo-luh NYE-gruh

**Common name(s):** River Birch

**Family:** *Betulaceae*

**USDA hardiness zones:** 4 through 9A (Fig. 2)

**Origin:** native to North America

**Uses:** hedge; near a deck or patio; screen; shade tree; specimen; residential street tree

**Availability:** generally available in many areas within its hardiness range

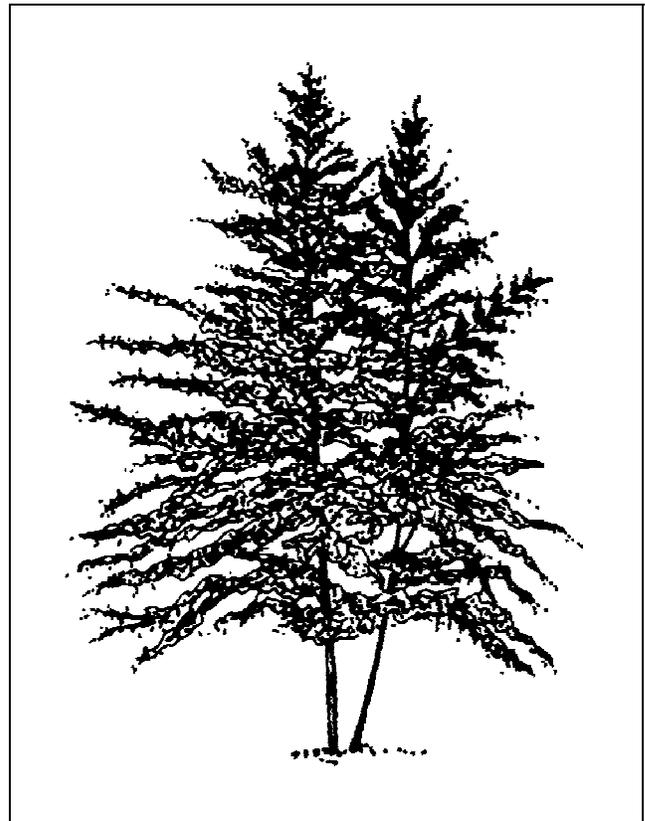


Figure 1. Young River Birch.

### DESCRIPTION

**Height:** 40 to 50 feet

**Spread:** 25 to 35 feet

**Crown uniformity:** symmetrical canopy with a regular (or smooth) outline, and individuals have more or less identical crown forms

**Crown shape:** oval; pyramidal; upright

1. This document is adapted from Fact Sheet ST-94, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: November 1993.
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Figure 2. Shaded area represents potential planting range.

**Crown density:** dense

**Growth rate:** fast

**Texture:** medium

### Foliage

**Leaf arrangement:** alternate (Fig. 3)

**Leaf type:** simple

**Leaf margin:** double serrate

**Leaf shape:** ovate; rhomboid

**Leaf venation:** pinnate

**Leaf type and persistence:** deciduous

**Leaf blade length:** 2 to 4 inches

**Leaf color:** green

**Fall color:** yellow

**Fall characteristic:** not showy

### Flower

**Flower color:** brown

**Flower characteristics:** inconspicuous and not showy; spring flowering; winter flowering

### Fruit

**Fruit shape:** elongated

**Fruit length:** 1 to 3 inches

**Fruit covering:** dry or hard

**Fruit color:** brown

**Fruit characteristics:** does not attract wildlife; inconspicuous and not showy; no significant litter problem

### Trunk and Branches

**Trunk/bark/branches:** droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; routinely grown with, or trainable to be grown with, multiple trunks; tree wants to grow with several trunks but can be trained to grow with a single trunk; very showy trunk; no thorns

**Pruning requirement:** needs little pruning to develop a strong structure

**Breakage:** resistant

**Current year twig color:** brown; reddish

**Current year twig thickness:** thin

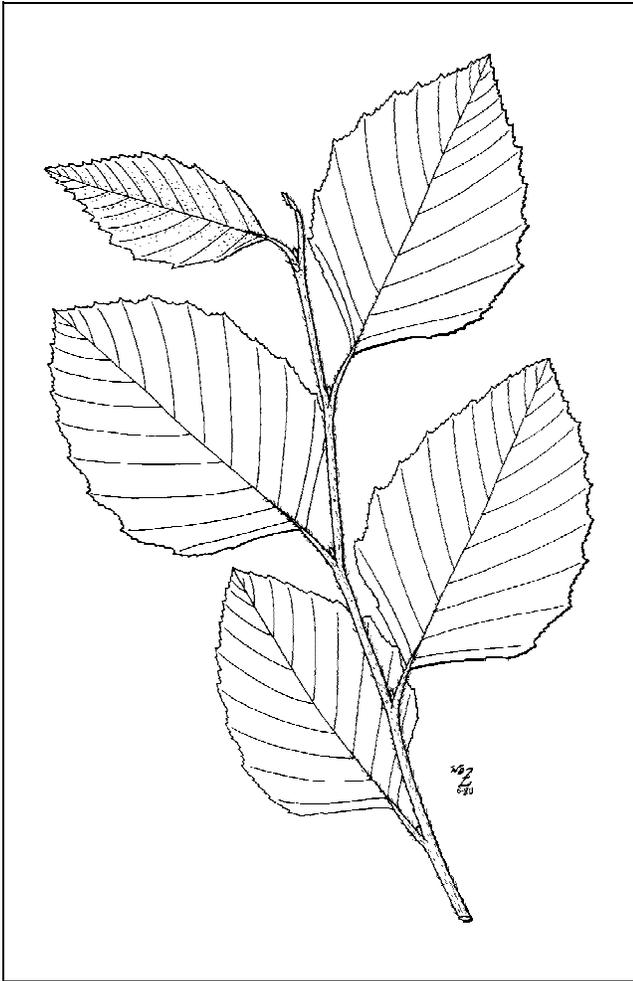


Figure 3. Foliage of River Birch.

### Culture

**Light requirement:** tree grows in part shade/part sun;  
tree grows in full sun

**Soil tolerances:** clay; loam; sand; acidic; extended  
flooding; well-drained

**Drought tolerance:** moderate

**Aerosol salt tolerance:** low

**Soil salt tolerance:** moderate

### Other

**Roots:** surface roots are usually not a problem

**Winter interest:** tree has winter interest due to  
unusual form, nice persistent fruits, showy winter  
trunk, or winter flowers

**Outstanding tree:** tree has outstanding ornamental  
features and could be planted more

**Invasive potential:** little, if any, potential at this time

**Ozone sensitivity:** tolerant

**Verticillium wilt susceptibility:** not known to be  
susceptible

**Pest resistance:** long-term health usually not  
affected by pests

### USE AND MANAGEMENT

It is very well-suited for planting along stream  
banks where it is native and in other areas which are  
inundated for weeks. River birch tolerates low soil  
oxygen, flooding, and clay soil but needs moist  
conditions. The tree requires an acid soil, otherwise it  
becomes chlorotic. River birch is hardy, grows  
rapidly, but tends to be short-lived (30 to 40 years) in  
many urban settings, possibly due to inadequate water  
supply. Situate the tree so it receives adequate water.  
Large trees are prone to trunk decay. Not a tree to  
plant and forget due to irrigation requirement.

The tree is not as susceptible to bronze birch borer  
as are other birches. It is not particularly adapted to  
heat but can make a nice tree in USDA hardiness zone  
8b, possibly 9a, if provided with irrigation and plenty  
of soil space. Not for confined street tree pits or tree  
lawns in the south. The yellow fall color display is of  
short duration.

The cultivar 'Heritage' grows 50 feet tall, has an  
oval shape, and scaly bark that is beige in color and is  
the closest to a paper white birch that will survive in  
hot areas; it grows from Minnesota to Florida. It is  
also tolerant of poor drainage. It is reportedly resistant  
to bronze birch borer and unlike most birches it is  
resistant to leaf spot. It is more vigorous than the  
species.

### Pests

No pests are of major concern. Resistant to  
bronze birch borer.

### Diseases

Leaf spots; chlorosis on soils with a high pH.