



Betula nigra River Birch¹

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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

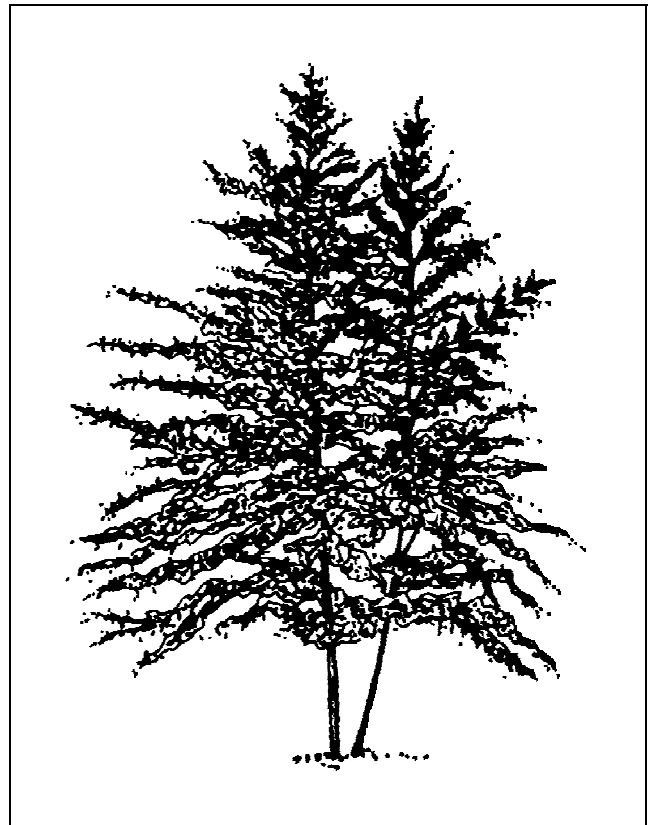


Figure 1. Young River Birch.

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

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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

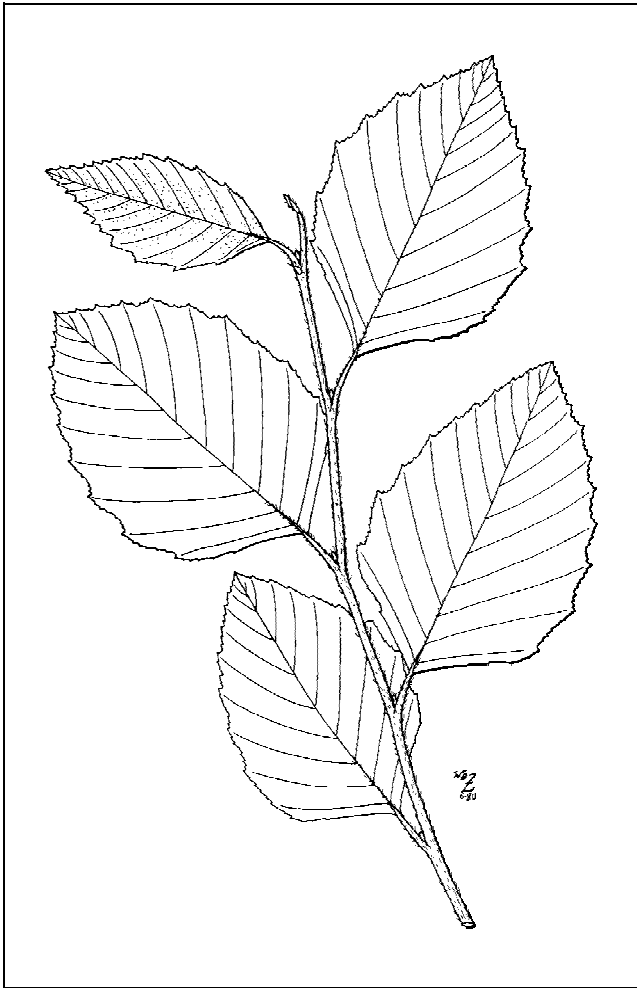


Figure 3. Foliage of River Birch.

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.