Guide to Birches of NYC in Winter

Betula (birch) is a genus of 30-60 species of small to medium sized deciduous trees found throughout temperate and boreal areas in the Northern Hemisphere. There are 16 species native to North America. Birches are fast growing pioneer species which rapidly colonize disturbed areas.

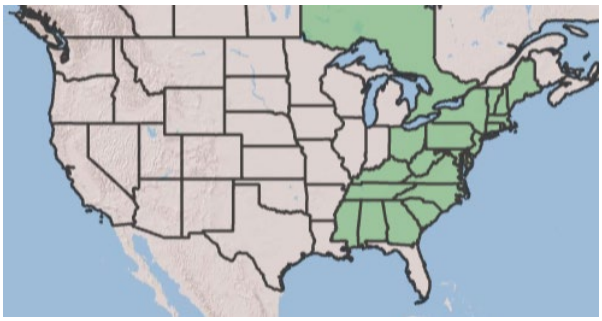
General characteristics of birches include: bark with long horizontal lenticels, often peeling in mature trees; simple, alternate leaves with serrate margins, often occurring in pairs; monoecious (separate staminate and pistillate flowers on the same tree) with wind pollinated flowers arranged in erect or pendulous catkins; winged fruits.

Birch sap can be tapped similar to maple sap and used to make birch beer. Inner bark can be eaten raw as emergency food". Birch bark, buds, and fruits are an important food source for birds and animals such as deer and moose.

The common name, "birch" comes from the Old English "birce", from word root meaning "to shine, whiten", in reference to the bark color of several species. The Latin name, *Betula*, comes from the Gaulish "betua", meaning bitumen, referring to tar extracted from the trees.

Compiled by Lydia Paradiso, PhD student

***Betula lenta* (sweet birch, cherry birch)**



- **bark** reddish-brown on young trees; gray to black and developing deep vertical fissures forming with age
- **twigs** with wintergreen smell when broken
- **buds** two toned (yellow/green and brown/black)

Ecology/Economic notes: Deer tend not to browse on young trees – sweet birch once used extensively to produce wintergreen oil (now synthetically produced) – wood darkens when exposed to air, resulting in timber with a look similar to mahogany

Name notes: The specific epithet *lenta* from the Latin "tough" referring to the hard wood, which is difficult to work with hand tools. The common name "sweet birch" refers to the sweet scent of the twigs, and the sap the tree produces. The common name "cherry birch" refers to the similarity of the young bark to that of a cherry tree.

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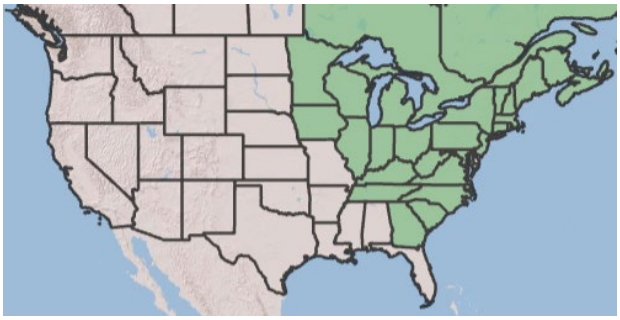
Herbarium specimens from NYC

GloBI interactions

Betula alleghaniensis (yellow birch)



in NYC, known only from Bronx county

- **bark** yellowish-grey, lustrous, peeling in thin curly strips
- **twigs** shiny bronze, wintergreen smell when broken
- **bud** scales with finely hairy margins

Ecology/Economic notes: Heavily browsed by deer (may explain relatively low abundance relative to the co-occurring *B. lenta*) – sugar maple has allelopathic (inhibitory) effects on yellow birch seedlings – more shade tolerant than other native birches, but still relatively shade intolerant – most wood sold as birch in North America comes from this tree – bark is a good fire starter – used medicinally by Native Americans (methylsalicylate, a compound similar to aspirin, gives the characteristic wintergreen smell)

Name notes: The specific epithet *alleghaniensis* meaning "of the Allegheny mountains", referring to their presence in the Appalachian mountains. The common name "yellow birch" refers to the bronze color of the bark on young twigs and trunks.

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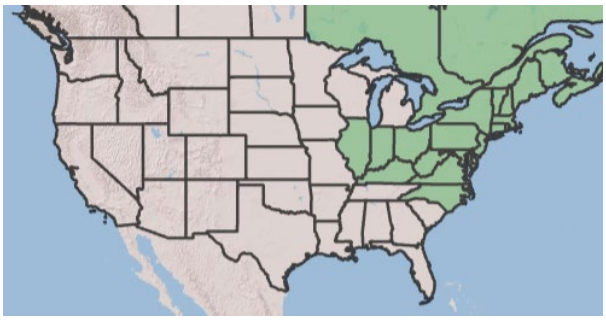
Betula populifolia (grey birch)

- **trunks** commonly clustered
- **bark** "dead-white", generally not peeling, crescent shaped black marks below branches
- **twigs** reddish brown with warty, raised lenticels



Ecology/Economic notes: Not widely used for timber due to generally small size – more resistant to pests than other species (particularly bronze birch borer)
Name notes: The specific epithet *populifolia* means "leaves like poplar" referring to the similarity of the leaves to poplar. The common name "grey birch" refers to the color of the bark.

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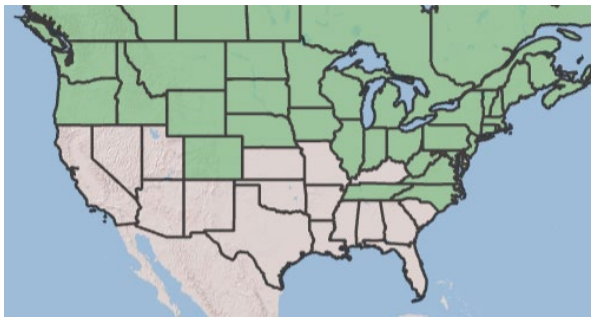
Betula papyrifera (paper birch)



- **trunks** commonly clustered, often slightly leaning
- **bark** white or nearly so, easily peeling, pink to orange on the inside
- **twigs** dull red-brown with light lenticels
- **buds** two toned (green and brown), hairy margins

Ecology/Economic notes: Most widely distributed birch species in North America – found in mixed hardwood-conifer forests but also in pure stands – readily colonizes areas after wildfires, avalanches – black walnut has allelopathic (inhibitory) effect on seedlings – heavily browsed by moose especially in winter (not easily digestible, but available in large quantities) – also consumed by deer, but not their first choice – bark is a good firestarter, even when wet – used by Native Americans for items such as canoes, wigwams, and bowls.

Name notes: Both the specific epithet *papyrifera* and the common name "paper birch" refer to the trees' peeling, papery bark.

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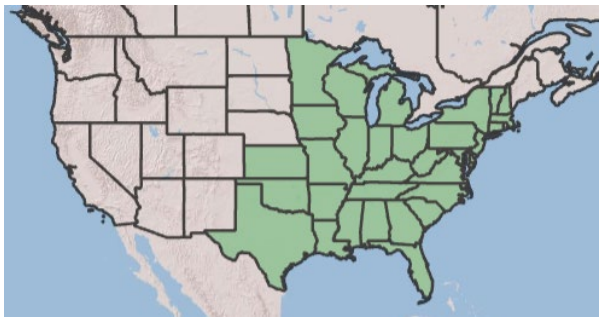
Betula nigra (river birch)



state rare species

- **bark** smooth on young trees, developing papery scales, exfoliating in thin layers with several colors
- **buds** relatively small, sometimes pubescent

Ecology/Economic notes: Grows well in acidic soils – not great for lumber due to knotting – not heavily browsed by deer – nesting site and cover for many birds – only birch whose range extends down to southern coastal plains – only spring-fruiting birch – despite growing near water, only moderately flooding resistant (not found through Mississippi river flood plain)
Name notes: The specific epithet *nigra* is Latin for "black". The common name "river birch" refers to the trees' preferred habitat, near rivers and other freshwater bodies.

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References/More information:

Flora of North America - *Betula* – key, species descriptions
USDA Silvics Manual of Hardwood Trees – species descriptions, ecology
New York Flora Atlas – maps, voucher specimens
GoBotany - *Betula* – key, species descriptions, photographs
USDA FEIS (Fire Effects Information System) – species descriptions, ecology

- *B. populifolia*
- *B. alleghaniensis*
- *B. nigra*
- *B. papyrifera*

maps from USDA Plants [plants.usda.gov]