

## PAPER BIRCH

*Betula papyrifera* Marsh.  
Plant Symbol = BEPA

Contributed By: USDA NRCS National Plant Data Center



Paper birch in the foreground with larch in the background.  
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Atlas of Beringia  
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### Alternative Names

White birch (*B. p.* var. *papyrifera*), paperbark birch, silver birch, canoe birch; western paper birch (*B. p.* var. *commutata*), mountain paper birch (*B. p.* var. *cordifolia*), Kenai birch (*B. p.* var. *kenaica*)

### Uses

**Ethnobotanic:** The sap and inner bark is used as emergency food (MacKinnon & Pojar 1994). White birch can be tapped in the spring to obtain sap from which beer; syrup, wine or vinegar is made. The inner bark can be dried and ground into a meal and used as a thickener in soups or added to flour used in making bread. A tea is made from the root bark and young leaves of white birch. The Shuswap made soap and shampoo from the leaves (MacKinnon,

Pojar, & Coupe´ 192). It is also used by native Americans to make canoes, buckets, and baskets. The Shuswap were noted for their beautiful birch bark baskets (Ibid.). North American Indian tribes used white birch to treat skin problems of various rashes; skin sores, and burns (Moerman 1998). The bark has been used to make casts for broken bones.

**Economic:** White birch wood is used commercially for pulpwood, plywood, veneer, and turnery. Tree chips are used for paper manufacture and fuel.

**Medicinal:** A decoction has been used to treat dysentery, various diseases of the blood, induce sweating, and to ensure an adequate supply of milk in nursing mothers (Moerman 1998). Birch gum could have been medicinal for some stone-age gatherers. The chewable gum contains zylitol, a disinfectant, and some terpenes, which could give the chewier a mild buzz (MacKinnon & Pojar 1994).

**Landscaping & Wildlife:** *Betula papyrifera* is commonly used as a landscape tree for its striking coloration. It is a desirable ornamental to be planted around homes and public buildings, in parks, and on campuses. Moose, snowshoe hare, and white-tailed deer browse paper birch. Numerous birds and small mammals eat the buds, catkins, and seeds.

**Agroforestry:** White birch is used in forested riparian buffers to help reduce stream bank erosion, protect aquatic environments, enhance wildlife, and increase biodiversity.

### Status

Please consult the Plants Web site and your State Department of Natural Resources for this plant's current status, such as, state noxious status and wetland indicator values.

### Description

**General:** Birch family (Betulaceae). White birch is a deciduous small to medium sized native tree. The leaves are alternate, ovate or triangular, five to ten centimeters long. The flowers are male and female flowers in separate catkins two to four centimeters long, the catkins break up at maturity (MacKinnon & Pojar 1994). The fruits are mature seed catkins that are three to five centimeters long. The bark is thin, smooth, dark red to almost black on young stems, becoming reddish-brown and then bright creamy white (Farrar 1995).

*Distribution:* White birch is native in Northern North America. It is widely distributed from northwestern Alaska east across Canada to Labrador and Newfoundland, south in northwestern states to Pennsylvania and Iowa and in the western states to Montana and northeastern Oregon (Viereck & Little & 1972). For current distribution, please consult the Plant profile page for this species on the PLANTS Web site.

### **Adaptation**

White birch is adapted to a variety of soils. It grows best in well-drained acid, sandy or silty loam, in cold soil temperatures and ample moisture. It is not tolerant of drought, compacted soils, or areas with high air temperatures. This species grows best in full sunlight and is very shade intolerant. It does not perform well in harsh conditions or heat and is not tolerant of pollution.

### **Establishment**

*Propagation from Seed:* Propagation by seed requires that the seed is best sown as soon as it is ripe. Sow the seeds in containers or seed trays containing a seed germination medium to which a slow release fertilizer is added. Firm the medium and sow the seed thinly and evenly on top, and cover with medium to a depth of medium (Heuser 1997). Place the pots in a sunny location in a cold frame. Plant seedlings into their permanent positions in late spring or early summer. When seedlings are large enough to handle they should be placed into individual pots and grown in a cold frame for their first winter.

### **Management**

Fertilization and irrigation should be done to maintain white birch vigorous condition and to help prevent borer infestation. Don't prune this birch or other birches until summer because they are "bleeders" and should not be cut when the sap is flowing.

White birch is susceptible to bronze birch borer and birch leaf minor.

### **Cultivars, Improved and Selected Materials (and area of origin)**

Readily available at nurseries. Contact your local Natural Resources Conservation Service (formerly Soil Conservation Service) office for more information. Look in the phone book under "United States Government". The Natural Resources Conservation Service will be listed under the subheading "Department of Agriculture."

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