

Fagaceae

Beech Family

A family of trees and shrubs, there are almost 800 species in 6–8 genera. Monoecious species, the inflorescence is of tiny unisexual flowers interspersed with a few perfect flowers. Staminate flowers arranged in clusters or catkins, with 4–7 tepals, appearing as the leaves unfurl. Stamens 6–12. Pistillate flowers may subtend the staminate ones in clusters, or are borne in separate axils. Inflorescences are subtended by an involucre. Ovary is inferior, with carpels numbering three or six, producing but a single seed, with the remaining carpels aborting. Fruit is a nut in our species, enclosed by numerous scales. Leaves are alternate, simple and ranging from entire to lobed. Stipules present and deciduous.

Key

Leaves coarsely and sharply serrated; nuts triangular, surrounded by a 4-parted involucre. *Fagus*

Leaves deeply lobed; nut round, subtended by a cuplike involucre. *Quercus*

Fagus L. Beeches

Beeches number 10 species of the northern-temperate regions; a single beech species reaches NS. Ours has the leaves serrate, each vein ending in a tooth. The pendulant staminate flowers arise on the lower part of the tree on drooping peduncles. Pistillate flowers are carried on short peduncles on the upper branches and are usually arranged in pairs, from the leaf axils. Ovary has three locules. Fruit is a sharply angled nut, containing a single seed.

Fagus grandifolia Ehrh.

American Beech; hêtre à grandes feuilles; suomusi



Photo by Sean Blaney

Leaves are ovate, and stiffly serrate at the ends of each vein. Pointed distally, they are carried on short petioles. Varying degrees of pubescence on the lower surfaces were formerly used to separate forms no longer recognized. Beech in NS rarely reach maturity because of beech canker, which develops when the fungus, *Nectria coccinea* is spread by an introduced scale insect (*Cryptococcus fagisuga*).

Flowers appear in late May with the leaves.



*Photo by Martin Thomas
staminate flowers*

Fertile soils on uplands.

Very common throughout the northern deciduous region, with Sugar Maple. Scattered elsewhere. Good undiseased stands are limited but some occur at Kentville, along the Cornwallis River.

Ranges from NS to ON south to TX and FL; UT.

***Quercus* L.**

Oaks

Oaks are usually tall robust trees with spreading canopies. Frequent and high degree of hybridization makes counting the number of species irrelevant. Their leaves are thick, entire or pinnately lobed, often persisting throughout the winter. Staminate flowers are borne in long slender catkins; calyx divided into six segments. Stamens 3–12.

Key to species

Leaves with rounded lobes; acorn oblong to elliptical.

Quercus robur

Leaves with pointed lobes, ending in a bristle or acuminate; acorns about as long as wide.

Q. rubra

Quercus bicolor Willd., the Swamp-white Oak was found recently as an escape from cultivation near Wolfville. As no subsequent record is known, it has not been included in the key.

Quercus robur* L.*English Oak; chêne pédonculé**

Photo by David Mazerolle

Bark is dark and deeply furrowed. Leaves are borne on very short petioles, less than 5mm long. They are obovate in outline, with deep lobes. The bristles are absent and the lobes rounded. Pale green acorns are ovate and elongated.

Readily escapes from cultivation.

Scattered roadside tree from Annapolis Royal to Halifax and Truro. Several Hants County localities. Becoming invasive from Windsor to Falmouth and spreading from Uniacke Estate Museum Park into native woods.

From NS to ON, south to OH and PA; BC. From Europe.

Quercus rubra* L.*Northern Red Oak; chêne rouge; mimgwaqanimusi**

Photo by Martin Thomas
Staminate flowers

Leaves are deeply cleft, the lobes are sharply pointed and often bristle-tipped, oblong in outline. Acorns are about as wide as long and the nut is conical at its base.

Two varieties are recognized: var. *ambigua* (A. Gray) Fernald is considered to be a more northerly form, with smaller acorns 1.5–2cm across the cup. Var. *rubra* with the larger



*Photo by Alain Belliveau
Immature fruit*

acorn cup, 2.5–3cm wide and flattened at the base, has been reported as scattered in southwestern NS. Canoe Lake, Yarmouth Co. and Boot Lake, Annapolis Co. Northern Red Oak is a defining species of the Acadian forest.

Granitic areas where the soil is light and well-drained or sandy.

Scattered throughout the province.

NS to ON, south to OK, LA and GA.