

## Meet Lexington's Heath Family

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The Heath family (Ericaceae) is very large with about 3500 species around the world and 1500 species in North America. The diverse plant types include herbs, small and large shrubs, and a few trees. The Plant Materials Guide for Lexington lists 12 species in 8 genera of the Heath family native to Lexington.

Most of them are well known, and all the flowers are attractive. The flowers have a single pistil, 4 or 5 petals, and 4 or 5 sepals that form the calyx that envelops and protects the developing flower. The petals of many species are fused. The flowers have shapes described as tubular, urn-shaped, bell-shaped, tubular, and bowl-like and are arrayed in various types of clusters. Several species have dry brown capsules that split open to release the dust-like seeds while others have attractive berry-like fruits in colors of red, blue, or black that attract wildlife.

Many species have handsome, thick glossy, evergreen leaves — and others have deciduous leaves, often with pretty colors in fall. Most of the genera in the Heath family form mycorrhizae (fungus roots); the fungi colonize the roots of the host plant and provide it with nutrients. All the plants described here thrive in acidic soils and are intolerant of lime (calcium carbonate). Light levels and other growth conditions are included below in the descriptions of the plant species.

Many of the Lexington species provide nectar for butterflies, bees, or hummingbirds, and some provide fruit or leaves that birds and mammals eat. Several of the Heath species in Lexington serve as larval hosts for specific caterpillars that will develop into butterflies or moths. Those found in Massachusetts are noted in the descriptions below, though some may not be here in Lexington.

### Genus *Rhododendron*



**Rosebay** or great laurel (*R. maximum*) is a large evergreen shrub that grows about 4-15 feet high in the northeast, but can reach 30—40 feet. It has bright pink flower buds that develop into pale pink flowers, about  $1\frac{1}{2}$  inches across, in June. The upper lobe of the 5 petals has pale green spots. The delicate flowers are in magnificent clusters of 15 to 25 and span 5 to 8 inches. The handsome dark green leaves, 4–10 inches long, are alternate, simple, elliptical, and waxy. Rosebay likes partial shade and moist, well-drained soil. The flowers attract hummingbirds and butterflies.



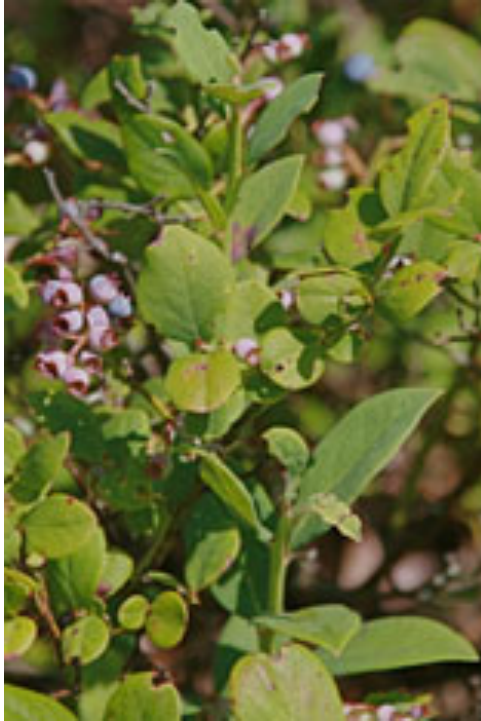
**Rhodora** (*R. canadense*) is a deciduous shrub that rarely grows more than 4 feet high. The elegant flowers,  $1\frac{1}{2}$  inches across, are rose to purple and less often white. They are in loose clusters. The 3 upper petals are fused together to form a single lobe; the lower two petals are divided and oblong, thus making an irregularly shaped corolla (ring of petals). Ten long stamens extend glamorously from the flower. The greenish-blue leaves, which open after the flowers have bloomed and wilted, are simple, narrow, oval, and  $1-2\frac{1}{2}$  inches long. Ralph Waldo Emerson paid homage to this azalea in a poem “The Rhodora” that was later set to music. Rhodoras like sun or partial shade and grow best in wet or moist soil. Though these flowers are not fragrant like other species in this genus, the butterflies still find the nectar.



**Swamp azalea** (*R. viscosum*) is a deciduous shrub that grows to 5–7 feet in width and height, though it can grow to a height of 15 feet. The sweet-scented flowers have 5 spreading white petals with lavender tubes at the base about  $1\frac{1}{2}$  inches long. Reproductive parts, including 5 stunning red stamens, protrude from the flower. The flowers bloom in June and July, appearing with or just before the leaves. The lustrous green leaves are alternate, simple, oval, 1–3 inches long, and clustered at the ends of branches. The leaves have excellent fall color, turning orange to maroon. Swamp azalea is a wetland shrub that likes moist soil, but tolerates drought. It prefers partial or full shade. Swamp azalea provides nectar for hummingbirds, several species of butterflies, and bees.

## Genus *Vaccinium*

**Lowbush blueberry** (*V. angustifolium*) is a deciduous shrub, 1/2 to 2 feet tall, that spreads by underground stems and forms mats. The small, delicate, white, bell-shaped flowers tinged with pink are solitary or in small clusters. They bloom in May. The fruit is a small blue to black berry, 1/4-inch across, that contains many tiny seeds and matures in mid-summer. The leaves are alternate, simple, elliptical, finely serrated, and 1–2 inches long. Foliage is reddish green in spring, bluish green in summer, and reddish purple in fall.



**Highbush blueberry** (*V. corymbosum*) is a deciduous shrub, 6–12 feet tall, with upright stems forming a rounded shape. The size of highbush blueberry is the most obvious difference between it and lowbush blueberry. The flowers, fruits, and leaves of highbush blueberry are similar in form and color to those of lowbush blueberry, but are slightly larger. The flower clusters of highbush blueberry form corymbs in which flowers hang from stalks along stems with the lower flowers on longer stalks than the upper ones. Both species grow in sun, partial shade, and shade and can tolerate moist or dry soil.

Birds and mammals, including people, relish blueberries. Blueberries of both species are eaten by about 20 birds, including wild turkey, mourning dove, ruby-throated hummingbird, northern flicker, red-bellied woodpecker, blue jay, black-capped chickadee, tufted titmouse, American robin, cedar waxwing, and white-throated sparrow. A few other birds like the berries of only one or the other plant species. Rabbits and deer eat the twigs and foliage of highbush blueberries. Blueberry bushes are larval hosts for several Lepidoptera species, including brown elfin and striped hairstreak butterflies and huckleberry sphinx, major datana, and saddleback caterpillar moths.

## Genus *Kalmia*



**Mountain laurel** (*K. latifolia*) is a broadleaf evergreen that grows to 12–20 feet tall. It can be a thicket-forming shrub or a small tree with a short trunk and spreading branches. The pleated buds are striking — and the delicate white or light pink flowers with their tiny red spots arrayed attractively are exquisite. Five petals form a bowl around the pistil and stamens. The flowers, about 1 inch in diameter in clusters 3–6 inches across, bloom in June. The leaves are alternate, simple, oval, leathery, 2-5 inches long, and glossy. Mountain laurels favor part shade and moist rocky or sandy soils. They attract birds and are hosts of the laurel sphinx moth.



**Sheep laurel** (*K. angustifolia*) is a mat-forming evergreen shrub growing to about 2–3 feet tall and often twice as wide. It has small, deep pink, saucer-shaped flowers in dense clusters around the stems. The individual flowers are about  $\frac{1}{2}$ -inch across. They bloom in June or July. The whorled, thickened, elliptical leaves are  $1\frac{1}{2}$ – $2\frac{1}{2}$  inches long. They are blue-green in spring and summer and turn reddish-green in fall. Sheep laurel habitats include sandy soil, bog borders, pastures, and wooded stream banks. The light requirement is partial shade. The flowers attract butterflies and birds. This plant is poisonous to sheep and cattle, but not deer.

## Genus *Eubotrys*

**Swamp doghobble** (*E. racemosa*), also called sweetbells and swamp fetterbush, is a deciduous shrub that grows to 5-12 feet in height and tends to form thickets. The small (1/4-inch long), delicate, white, tubular flowers have 5 petals. The flowers hang in single rows on curved stems 2-4 inches long. The flowers bloom in April to May. The leaves are alternate, simple, bright green, narrow, pointed, fine-toothed, and about 1½–3 inches long. They turn red in fall. The natural habitats of swamp doghobble are thickets and swamps. In cultivation it grows well in moist sandy or clay loam. The light requirement is partial shade.

## Genus *Arctostaphylos*



**Bearberry** (*A. uva-ursi*) is a small, woody evergreen shrub that grows to 6-12 inches in height and spreads 5 or more feet across, making a pretty groundcover. Bearberry has small, delicate, white to pink urn-shaped flowers that hang along a stem from short stalks. The flowers emerge in early May, and the red berry-like fruits, the size of peas, form in July and last through March. The thick leathery leaves are alternate, simple, rounded, glossy, and 1/2-1 inch across. They are yellow-green in spring, dark-green in summer, and reddish-purple in fall and winter. Bearberry plants grow in rocky or sandy soil in sun, partial shade, or shade. They are drought tolerant. Hummingbirds and butterflies drink nectar from the bearberry flowers. More than 30 songbirds, rodents, and bears (if around) eat the fruits. This shrub is a larval host for caterpillars of the hoary elfin and brown elfin butterflies.

## Genus *Epigaea*



**Trailing arbutus** (*E. repens*) is the state flower of Massachusetts. The Latin name means “to creep upon the earth.” This plant is also called mayflower because it was the first flower the pilgrims saw after the harsh winter. Trailing arbutus forms an evergreen mat about 2 inches tall and spreads with stems of 4–6 inches in length. The exquisite trumpet-shaped pale pink flowers,  $\frac{1}{2}$ -inch across, are in dense clusters. They emerge in April or May. Both the leaves and flowers are fragrant. The leaves are alternate, simple, oval, thick, shiny, and about 2-3 inches long and half that in width. Trailing arbutus grows naturally in sandy or rocky woodlands. It likes moist, well-drained soil and shade or partial shade and seems to do well around pine trees. It is hard to establish, but worth the effort. The flowers attract butterflies and are pollinated by flying insects and ants. Trailing arbutus is a larval host of the hoary elfin butterfly. In the past people have dug out large numbers of these plants because of their beautiful flowers. Now a Massachusetts law protects them.

## Genus *Gaultheria*



**Wintergreen** or teaberry (*G. procumbens*) is a small shrub that is 3-5 inches high and has dark evergreen foliage. It spreads by long rhizomes in the top layer of the soil and forms a creeping groundcover. Small ( $\frac{1}{4}$  inch), white, urn-shaped flowers bloom in mid-July. The flowers hang from short stalks that are equal in length and spread from a common point — this cluster form is constructed like ribs of an umbrella and is called an umbel. The fragrant, bright red, round fruits,  $\frac{1}{4}$ – $\frac{1}{2}$  inch across, are dry capsules surrounded by a fleshy cover. They ripen in summer and persist into winter. The leaves are alternate, simple, oval, thick, shiny, and 2 inches long. The plant grows

in moist or dry soil in pine or hardwood forests in light to moderate shade. Birds, chipmunks, mice and deer eat the leaves in winter. Birds and deer eat the fruit. The leaves have a wintergreen fragrance when crushed — and the extract is used to flavor tea, candy, chewing gum, and medicine.

## Genus *Gaylussacia*



**Black huckleberry** (*G. baccata*) is a deciduous shrub that grows to 3 feet high and 2-4 feet wide. The flowers, which bloom in May or June, are white or greenish red and are arrayed along one side of a stem. Black berry-like fruits,  $\frac{1}{4}$  inch in diameter, emerge in July to September. The leaves are alternate, simple, elliptical, green above and yellow below, covered with yellow resin dots, and 1–3 inches long. Huckleberry bushes are found in dry, rocky or sandy soil in open meadows and woods. They often grow among blueberries. Huckleberries can grow in moist or dry soil and in sun, partial shade, and shade. Several kinds of birds eat the fruit, including wild turkey, mourning dove, northern flicker, blue jay, American robin, and pine grosbeak.

## Finding these Plants

The Plant Materials Guide for Lexington lists nurseries that carry native plants. Most of the Heath family species can be found fairly easily except rhodora. New England Wild Flower Society's Garden in the Woods in Framingham should have most of the *Rhododendron* and *Kalmia* species as well as the smaller plants, though not at the same time. Weston Nursery in Hopkinton has a plant catalog and availability list on its website. Mahoney's in Winchester and Russell's Garden Center in Wayland should have some of the smaller native plants.

## References

- LBJ Wildflower Center Plant Database
- Butterflies and Moths of North America
- Virginia Tech fact sheets
- Connecticut Botanical Society
- Plants of Southern New Jersey
- Trees and Shrubs of New England, Mary J. Dwelley (1980)
- A Field Guide to Trees and Shrubs, George A. Petrides (1958)
- Trees, Shrubs, and Vines for Attracting Birds, Richard M. DeGraaf (2002)
- Bringing Nature Home, Douglas W. Tallamy (2007)