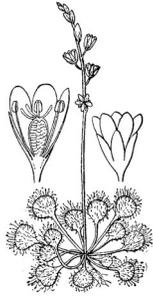


Plant ID Guide



Highbush Blueberry
(*Vaccinium corymbosum*)



Roundleaf Sundew
(*Drosera rotundifolia*)



Leatherleaf
(*Chamaedaphne calyculata*)



Small cranberry
(*Vaccinium oxycoccos*)



Bog Laurel
(*Kalmia polifolia*)

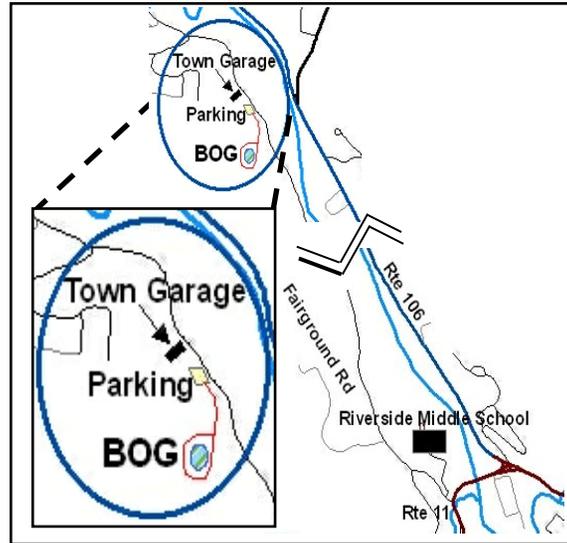


Bog Rosemary
(*Andromeda polifolia*)

Photographs and illustrations courtesy of USDA unless noted.

Driving Directions:

From Springfield, VT, take Route 11 west to Riverside Middle School. Turn right onto Fairground Road. Drive approximately two miles to a large parking lot on the left side of the road just before the town garage. The short trail to the bog begins at the gray "BOG" boulder.



ASCUTNEY MOUNTAIN AUDUBON SOCIETY

P.O. Box 191, Springfield, Vermont 05156

Visit us at: www.audubon.org/states/vt

The North Springfield Kettle Bog is a cooperative project between AMAS and the Town of Springfield, VT



Bog illustration by Carol Wood used with permission from *Keepers of Life: Discovering Plants through Native American Stories & Earth Activities for Children* by Michael J. Caduto & Joseph Bruchac (Fulcrum Publishing, Golden Colorado, 1994).

ASCUTNEY MOUNTAIN AUDUBON SOCIETY

North Springfield Kettle Bog

Fairground Road
North Springfield, VT



JOURNEY THROUGH THIS

BOREAL KETTLE BOG,

A 10,000 YEAR OLD GLACIAL RELIC

What is a Bog?

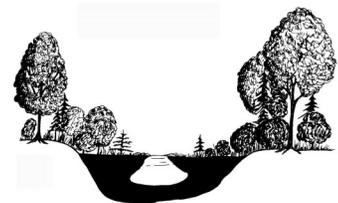
A BOG is a unique type of wetland that has



Leatherleaf
(*Chamaedaphne calyculata*)
Photo by M L Caduto

accumulated a thick layer of peat. PEAT is dead plant material that does not decay because it is always waterlogged. The peat builds up over time to form a dense mat.

WETLANDS are inundated by surface or groundwater for at least some part of the year, causing water-tolerant plants to grow. Bogs receive their water mainly from precipitation rather than being fed by streams or groundwater. They are also poorly drained so remain saturated year-round. Decomposition is poor in bogs and nutrients are scarce because oxygen levels are low and the water and soils are acidic. These conditions lead to specially adapted plant communities that include sphagnum moss, black spruce and a number of heaths such as leatherleaf and bog rosemary.



©1994 by Carol Wood

Bogs develop from ponds over thousands of years. As plants along the water's edge grow and die,

the peat accumulates along the shore, builds up on the bottom and extends out into the open water. Eventually a floating mat of living plants grows on top while the decaying matter continues to accrue on the bottom, filling in the pond. Bogs may or may not have any open water left, but all have thick peat mats.

Unique Bog Plants

SPHAGNUM, a moss, is often the most common plant

in a bog and forms the base of the peat. Here the moss occurs in hummocks throughout the bog. When the tiny red capsules ripen, they explode and spread the minute sphagnum spores.



©Michael Luth

PITCHER PLANTS (*Sarracenia purpurea*) are probably

the plants most readily identified with bogs in New England. These carnivorous flowering plants grow on the peat mat. The tube-forming leaves are covered inside with short stiff hairs that angle downward. The leaf tubes fill with rainwater and, as insects enter to reach the fresh water, they become trapped by the downward facing hairs. Sticky cells along the sides also clump up on the insect's feet causing it to slide down into the water.



Photo By M E Walsh

The plant then exudes enzymes to digest the insect thus gaining nourishment in the nutrient-poor environment. Carnivorous sundew plants can also be found here.

HEATHS (*Ericaceae*) are well adapted to survival in bog

conditions. These acid tolerant woody shrubs are mostly evergreen. Leatherleaf, bog rosemary, small cranberry, bog laurel and highbush blueberry are all heaths that thrive in the bog. Their blooms in the springtime and berries in the fall add to the beauty and color of a bog visit. A waxy-coating protects the leaves from drying out while toxins within the leaves protect these plants from bacteria and viruses.

History of Bogs

The cool temperature, the high acidity and the lack of oxygen in bog soils and water, caused by constant saturation, decreases the rate of decomposition. Dead plants that do not decay, build up into the peat layer that covers the bottom and surface of the bog. These conditions have preserved remarkable archeological discoveries over the centuries. In northern Europe, where bogs are common, perfectly preserved bodies have been recovered that are over 2000 years old.

Peat has been harvested for fuel and for use as a soil amendment and horticultural product. First, bogs are drained of water and all surface vegetation is removed. Then the accumulated peat layer is sliced, vacuumed and packaged. The loss of the accumulated peat layers alters the bog habitat and destroys the bog's fragile ecosystem. Restoration of the hydrology and plant-life takes decades or even centuries.

Consider using homemade or locally produced compost instead of bagged peat moss in your garden.



Small Cranberry
(*Vaccinium oxycoccos*)

Bogs provide habitat for unique plant and animal communities, they filter and store water and play a role in carbon storage. Their preservation and protection is vital to the survival of many sensitive and fascinating species.

Please do not pick or disturb these fragile plants.

Thank you for visiting and caring for the North Springfield Kettle Bog.