

Arboretum Review



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Bog plants

Of all the natural areas in the arboretum, the bog area attracts the most visitors. Part of its charm is the variety of plants growing in the moist sphagnum moss and muck. These plants appear to practically grow in water, but most grow on mounds of accumulated organic matter. Some, however, may actually be growing in water.

The bog vegetation includes trees, shrubs, herbaceous perennials, annuals, grasses, sedges, and ferns. Some are the same as upland species. The bog is not a place to look for early wildflowers. Frost remains in the bog area until late spring and sometimes into early June. Except for a few plants such as the marsh marigold, there is little growth until the frost leaves the ground and the root zone area starts to warm up. The peak of bloom begins in late June and extends into September.

Here is a partial list of plants either native or planted in the bog area:

Acer rubrum (Red Maple). The native red maple is a medium-height tree that grows both in bogs and on dry, sandy soils. In the bog, the growth is rather slow because of poor drainage and low fertility. The fall color of the red maple comes early and is usually a good bright red.

Alisma triviale (Largeflower Water Plantain). This plant usually grows in standing water and reaches a height of 2 feet. The broad, ovate leaves are rounded to heart-shaped at the base and are borne on long petioles. The small, white flowers are produced in open panicles.

Asclepias incarnata (Swamp Milkweed). This is a most attractive species of milkweed having reddish flowers borne in umbels. Plants grow to a height of 3 to 4 feet. The pods are long and slender and are much in demand for dried flower arrangements. The flowers also hold up well in arrangements. This species can also be grown in the perennial flower border.

Aster junciformis (Bog Aster). This aster is characterized by its narrow, clasping leaves. The flowers are white to pale blue with from 20 to 50 rays. They are borne on stems about 2 feet tall. Other species of Aster are also in the bog.

Betula pumila glandulifera (Bog Birch). This shrublike birch forms large clumps 6 to 10 feet tall. The stems are dark brown with bark that does not peel in papery strips. The plant is common throughout the bog.

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The Showy Ladyslipper is our state flower. Several of the plants are located at the south end of the bog trail. They receive much attention when they are in bloom. From one to three flowers are borne at the ends of stems that are 2- to 3-feet tall.

Betula x sandbergi (Sandberg's Birch). This is a natural hybrid between the Paper Birch and the Bog Birch. The plants are intermediate in size between the two parents. The stems are grayish-brown, and the plant usually grows as a clump. Because of the bark's dull color, this hybrid has little landscape value.

Betula papyrifera (Paper Birch). Only a few are in the bog area. Several fine native specimens are growing on a northfacing

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slope above the bog. Of all of our native birches, this is the most planted. It is, however, subject to the bronze birch borer and should not be used unless the soil is cool and moist.

Bidens beckii (Beggars-tick). The plants are 15 inches tall with small, yellow flowers. Fruits are barbed and catch on clothing and the fur of animals. They grow in shallow water.

Calla palustris (Water Arum or Wild Calla). This lovely wild calla, with its white spathe, grows in shallow water at the edge of ponds. This is not native in our bog, but has been planted along the boardwalk. The flowers make their appearance in early summer. The height of the plant is about 6 inches.

Caltha palustris (Marsh-marigold). This is one of the most common flowers in the bog. It is most conspicuous in early May. Individual flowers resemble large, yellow buttercups. Plants are 12 to 18 inches tall. The sepals are petallike with five to nine sepals per flower. There are no petals. The leaves are broad and heart-shaped. They are conspicuous after the flowers have gone to seed. It is well worth the time to visit the bog when this flower is in bloom.

Campanula aparinoides (Marsh Bell-flower). The weak stems grow to about 3 feet tall and usually recline on other vegetation. The flowers are pale blue and form bells that are about ½ inch long. This species is not common.

Chamaedaphne calyculata (Leatherleaf). This native of our northern bogs has been transplanted successfully and is growing in several locations along the bog trail. Characteristic of this member of the heath family are its small, leathery green leaves which turn brownish-green in the fall and its small, white bell-shaped flowers. Plants grow to a height of about 4 feet.

Chelone glabra (Turtlehead). This large-flowered member of the Figwort family blooms in August. The flowers are about 1½ inches long and resemble a turtle's head. The petals are white and often tinged with pink. Plants are about 18 inches tall.

Cicuta maculata (Water-hemlock). This is one of the few poison plants in the arboretum. It belongs to the carrot family and is characterized by its compound, finely divided leaves and its compound umbel inflorescence. The poisonous principle is concentrated in the fleshy roots and basal portions of the stem. However, no part of the plant should be eaten. The plant is common where the drainage channel crosses the bog trail. Plants are 4 to 5 feet tall.

Cornus obliqua (Pale Dogwood). This large shrub is common along the bog trail. Stems are purple to yellowish-red. Leaves have grayish-white hairs along the veins on the undersurface. The fruits, which mature in late summer, are blue to white.

Cornus stolonifera (Red-osier Dogwood). This is our most common species of dogwood and is most conspicuous in late winter when the stems are a bright red. The flowers and fruits are white. This native dogwood is often planted in landscape plantings where a large shrub is needed. A compact form called 'Isanti' has been introduced by the arboretum.

Cypripedium acaule (Moccasin Flower or Stemless Ladyslipper). This rare native is difficult to transplant; moving it should not be attempted. Occasionally, we have received plants that were about to be destroyed by construction. We were pleased to note a clump blooming along the trail last summer. The moccasin flower is distinguished by a basal rosette of leaves and a 6-inch flower stalk devoid of leaves. The lip of the flower is pink with red veins.

Cypripedium candidum (White Ladyslipper). This is the only species of ladyslipper that grows on moist, calcareous soils. A few clumps are established at the south end of the bog trail. The white slippers and the low stature—about 1 foot tall—distinguish this species. Bloom is usually in late May or early June.

Cypripedium reginae (Showy Ladyslipper). This is our state flower. Several fine clumps have been established at the south end of the bog trail. This is the tallest of our ladyslippers—with from one to three flowers borne at the ends of 2- to 3-foot stems. The slipper is whitish with red stripes. Pure white forms have been observed on rare occasions.

Dryopteris cristata (Crested Fern). This handsome fern is common throughout the bog area. It is most conspicuous in the late fall when its semi-evergreen leaves contrast against the brown of the other vegetation. The plants are only about 1 foot tall.

Epilobium leptophyllum (Linearleaf Willow-herb). This inconspicuous plant scarcely resembles the Common Fireweed (*E. angustifolium*). It is distinguished by narrow leaves and the spikes of small flowers having elongated seed pods that develop below the attachment of the flowers. The plants are about 2 feet tall and are fairly common along the trail.

Equisetum fluviatile (Water Horsetail). This perennial horsetail develops erect stems with whorls of green branches and scalelike leaves. Tips of the 3-foot stems terminate in conelike spore-producing structures. The above-ground stems are killed by frost and grow up from the base each spring. The plants are common in shallow water along the trail.

Eupatorium maculatum (Joe-pye-weed). In the fall, this member of the sunflower family is one of the most common plants in the bog. The stems are purplish and speckled and grow to about 5 feet tall. The lance-shaped leaves are borne in whorls along the stem. The terminal inflorescence is flat-topped with a number of purplish flowers. It blooms in August and September.

Fraxinus nigra (Black Ash). This species is more common northward, but one plant has been identified along the bog trail. This species can be distinguished from the green ash by the broad, winged fruits and the sessile leaflets that are attached directly to the leaf rachis.

Habenaria psychodes (Fringed Orchid). This orchid is fairly common in swamps and wet roadside ditches in northern Minnesota. Several clumps have been established near the south end of the bog trail. The rose-purple flowers are borne on erect spikes that terminate leafy stems about 2 to 3 feet tall. Its fringed lip is characteristic.

Heracleum lanatum (Cow-parsnip). This 6-foot tall, large-leaved member of the carrot family grows in the wet soil along the edge of the bog. The large umbels of dried fruits are particularly attractive in winter arrangements.

Ilex verticillata (Winterberry). This is the only species of holly that can be grown successfully in Minnesota. The winterberry, also called black alder, is native in swamps throughout the wooded portions of the state. This deciduous shrub reaches a height of 12 to 15 feet, although most plants in the arboretum bog are under 10 feet. It's common along the boardwalk. It is most conspicuous in the fall when it has its bright red berries. These stay on until after Christmas or until they are eaten by birds. However, they turn a dull red after a few good freezes.

Iris versicolor (Blue Flag). The leaves are narrow and upright. The flowers are violet or blue-violet to red-purple. The species grows in wet, mucky soils and is sometimes partially submerged in water. It's not common in our bog.

Kalmia polifolia (Swamp-laurel). This is one of our most beautiful native shrubs. A colony in full bloom in late May or early June is a sight to remember. This evergreen shrub grows to a height of about 2 to 3 feet. The leaves are narrow and roll backward. The undersurface is whitened with fine hairs. The flowers are borne in corymblike clusters and are usually a rose-purple color. We have had difficulty establishing this plant in our bog. Apparently, the plants are difficult to move from the wilds.