Marginal (Wet-Edge) Species

Marginal plant species offer food and habitat to a variety of wildlife species. They play an integral role in bank stabilization and nutrient filtration.

**Bebb’s Sedge**
*Carex bebbii*
Bebb’s Sedge is a loose to densely clumped perennial sedge with stems up to about 25” tall. Triangular stems usually exceed the leaf blades in height. Mature leaves are up to about 4 mm wide. Blooms are crowded into stiff and dense spikelets and measure only several millimeters. Bebb’s Sedge actively grows during the spring and fall when soil temperatures are cool.

**Blue Vervain**
*Verbena hastata*
Blue Vervain is a rhizome-rooted, slender, but erect, perennial wildflower that grows from 2’ to 5’ tall. Its hairy, square stems can be green or red. The toothed, lance shaped leaves progress in pairs up the stem and are about 6” long by 1” wide. Purplish-blue flowers bloom in multiple, showy, elongated panicles and are up to 5” long by approximately 1/4” across. Blue vervain blooms in mid to late summer. The blooms last approximately 6 weeks at which time they produce nutlets.

**Blue Lobelia**
*Lobelia syphilitica*
Blue Lobelia is a showy perennial plant that grows to a height of 1’ to 4’ tall. The alternate leaves are up to 5” long and 2” wide. The stems produce lavender-blue, tubular flowers crowded together on the upper stem. The blooming period occurs from late summer into fall, and lasts about 2 months. Sometimes plants produce white flowers, and other color variations are possible. The root system consists of a central taproot, from which occasional basal offshoots are produced. The flowers attract bumblebees, hummingbirds, and butterflies.

**Boneset**
*Eupatorium perfoliatum*
Boneset is a native perennial wildflower that grows from 2’ to 4’ tall. The bases of the leaves tend to grow together, making it appear as if the central stem perforates the leaves. Fragrant white flowers in 2” to 8” clusters (with approximately 15 florets per flower head) appear in late summer or early fall.
Marginal (Wet-Edge) Species

**Bottle Brush Sedge**  
(*Carex comosa*)

Bottle Brush Sedge is a perennial herb that appears grass-like and has triangular solid stems. Sedges colonize on shorelines, wet meadows, and marshes. Most prefer to grow in water less than 1' deep. Sedges provide important nesting cover and food for a wide variety of songbirds, upland gamebirds, shorebirds, and waterfowl. Amphibians, including frogs and salamanders, utilize sedges for feeding, shade, and protection. Sedges also serve as important buffer species against nutrient loading and shoreline erosion.

**Ironweed**  
(*Vernonia fasciculata*)

A member of the aster family, ironweed has showy purple flowers on 6' to 8' tall stems. It works well as a tall backdrop and blooms between July and September. Leaves are long and narrow, with small teeth around the edges. The seeds have tufts of hair that carry them off in the wind. Ironweed will thrive in moister soils with full to partial sun.

**Marsh Blazing Star**  
(*Liatris spicata*)

The Marsh Blazing Star, also known as Gayfeather, is a tall, clump-forming perennial that grows to a height of 4'-6'. It is characterized by its terminal spikes of rounded, fluffy pinkish-purple flower heads (approx. 3/4” across) which appear atop rigid, erect leafy stalks. Flowers typically start to appear in late June and last into August. Unlike most spiked flowers, the Marsh Blazing Star blossoms begin opening from the top of the spike downward. The plant is quite tolerant of harsh growing conditions such as poor soil, heat, humidity and drought.

**Joe-Pye Weed**  
(*Eupatorium maculatum*)

Joe-Pye Weed is a perennial herb that grows to a height of about 12’. The sturdy, hollow, purple stems are covered with whorls of 4 to 8 dark green, lance shaped, serrated leaves, that are up to 1’ long. Atop each stem is a rose-pink to whitish domed cluster of flowers, about 1’ in diameter, which blooms in August and September.
Marsh Marigold  
(*Caltha palustris*)

Marsh Marigold is an herbaceous perennial which grows up to 2’ in height and width. It is known for its mounds of light green, rounded leaves (1” to 8” across) with scalloped edges which emerge very early in spring. Soon after, clusters of bright yellow, 5-petaled flowers, each roughly the size of a quarter, emerge. The flowers bloom continually for one or two weeks and are quite attractive to a variety of insects.

Marsh Milkweed  
(*Asclepias incarnata*)

Marsh Milkweed is a tall (2’ to 4’ average height) perennial with bright rose-purple blossoms. Typically, its stems are branched and the clump forming plants emerge in late spring after most other plants have begun growth for the year. The oppositely arranged leaves are 2.75” to 6”, and are long and narrow with the ends tapering to a sharp point. Marsh Milkweed blooms in early to mid-summer, producing small, fragrant, pink to mauve (sometimes white) colored flowers in rounded umbels.

Porcupine Sedge  
(*Carex hystericina*)

This native perennial sedge forms a dense to loose tuft of stems with both fertile and vegetative shoots. Each fertile shoot ends in a bottle brush-like head which turns brown as it ages. This sedge prefers full to partial sun, wet to moist conditions, and soil that is reasonably fertile. The seeds of sedges are an important source of food to many waterfowl, upland game birds, and songbirds.

Red Cardinal Flower  
(*Lobelia cardinalis*)

Red Cardinal Flower is a perennial plant, usually unbranched, and 2’ to 3-1/2’ tall. The central stem is ridged and somewhat hairy with alternating leaves that are up to 6” long and 1-1/2” across. The central stem has showy, red flowers in 8” terminal spikes. The blooming period occurs from late summer to early fall and lasts about 1’ to 1-1/2 months. The root system of the Red Cardinal Flower consists of a taproot. Due to its red color, the plant is quite attractive to hummingbirds.
Shallow Water Emergent Species

Shallow water emergent plants provide habitat for a variety of bird species and are a food source for a number of mammals and waterfowl. A wide variety of emergent plants are critical to creating and maintaining a balanced ecosystem.

**Blue Flag Water Iris**  
*Iris versicolor*  
This perennial Iris begins to emerge in March or April and grows to a height of 1’ to 2’. Impressive violet flowers bloom from May to July. The Water Iris offers important shoreline habitat for a range of wildlife and the root structure provides exceptional shoreline stabilization.

**Common Arrowhead**  
*Sagittaria latifolia*  
This perennial herb is one of the highest valued plants for wildlife. It has arrow-shaped leaves that vary in size. This plant grows from 1’ to 3’ and produces small white flowers from July to September. In addition to providing rearing habitat for fish, Common Arrowhead facilitates shoreline stabilization.

**Creeping Spikerush**  
*Eleocharis palustris*  
The Creeping Spikerush has stems that are singular or in small clusters and it will continue to grow to keep the heads out of the water if the water rises slowly. The stems are upright, round, and may reach over 3’ in height (height is dependent on the depth of water in the growing environment). The leaves are reduced to sheaths clustered at the base of the stems. Plants typically flower from June through September. The Creeping Spikerush has a dense root mass that extends deeper than 16” into the soil which makes this an excellent soil stabilizer.
Shallow Water Emergent Species

**River Bulrush**  
*(Schoenoplectus flavidus)*  
River Bulrush is an excellent shoreline stabilizer that prevents soil erosion from entering a water body. The stems of River Bulrush are sharply triangular and emerge from a robust, tuber-producing rhizome. The stems have prominent, three-ranked leaves that are “M” shaped in cross-section. The rhizome network is dense and strong. The rhizomes of River Bulrush produce high-nutrient tubers that are an important food source for geese, particularly during migration. The nuts produced are eaten by a variety of waterfowl.

**Soft Rush**  
*(Juncus effusus)*  
Soft Rush is a clump forming, grass-like perennial. New shoots emerge and develop in late summer, reaching up to 4’ tall at maturity the following spring. The flowers are inconspicuous in compact clusters and measure about 4” in length. The flowers emerge and mature from March to September, peaking in July. The dense stands that soft rush form have deep fibrous root systems, which provide excellent shoreline protection, filter suspended solids and uptake excess nutrients. The seed and vegetative parts of the plant are utilized by various birds and animals for food and cover.

**Sweet Flag**  
*(Acorus calamus)*  
Sweet Flag is a perennial herb with tall sword-like leaves that emit a pleasing, spicy fragrance. At first glance this plant resembles cattails, but it does not spread to nuisance levels like cattails do. A unique characteristic of this plant is the cigar-like seed head it produces. The benefits of this species include providing a spawning habitat for fish and stabilizing the shoreline.

**Water Arum**  
*(Calla palustris)*  
Water Arum is an ornamental perennial with slender stems and heart-shaped leaves that grows to 1’ in height. The showy flowers bloom from June to August and are similar in appearance to peace lilies. Water Arum provides habitat for fish and aquatic invertebrates, and its berries are consumed by a variety of wildlife.
Shallow Water Emergent Species

Water Plantain
(*Alisma subcordatum*)

Water plantain is a perennial herb that supports broad, flat leaves that grow 1’ to 2’ in height. Tiny white flowers emerge during the summer months and are spread out on a highly branched flower stalk. The sturdy flower stalk offers a popular perch for songbirds and insects. A variety of waterfowl consume both tubers and nutlets. Water plantain also provides juvenile fish rearing habitat and shoreline buffering.

Yellow Water Iris
(*Iris pseudacorus*)

This perennial Iris begins to emerge in March or April and grows to a height of 1’ to 2’. Beautiful yellow flowers bloom in July. The Water Iris offers important shoreline habitat for a range of wildlife and the root structure provides exceptional shoreline stabilization.
Deep Water Emergent Species

Deep water emergent plants provide nesting habitat for a variety of bird species, as well as critical habitat needed by a number of fish species. Deep water emergents also provide food for a variety of mammals and waterfowl. A wide variety of emergent plants is critical to achieving a balanced ecosystem.

Bur-reed
(Sparganium eurycarpum)
Bur-reed is a perennial herb that grows 2’ to 4’ in height. This emergent has sword-like leaves that resemble a compressed triangle in cross section and Bur-reed produces a large seed crop that is consumed by a variety of waterfowl. Like bulrush, bur-reed provides excellent habitat for nesting birds and important habitat for fish. Bur-reed also anchors bottom sediment and offers nutrient filtering capabilities.

Hardstem Bulrush
(Schoenoplectus acutus)
Bulrushes are common perennials that can form dense colonies. The hardstem bulrush can range from 3’ - 9’ in height. These plants provide spawning, nursery and foraging habitat for fish and waterfowl. In addition, bulrushes effectively filter nutrients and stabilize shorelines.

Pickerel Plant
(Pontederia cordata)
The pickerel plant is an ornamental perennial that can grow in water up to 3’ deep. Pickerel plant is made up of glossy, heart shaped leaves and a showy violet blue flower spike. The colorful flower stalk serves as a nectar source and home for many beneficial insects. Pickerel plant also offers exceptional habitat for both adult and juvenile fish. The robust leaves and rhizomes play a key role in shoreline stabilization and help buffer wave action.

Three Square Bulrush
(Schoenoplectus pungens)
Three Square Bulrush is a perennial herb with upright, triangular stems. The stems are erect to strongly arched and 6” to 40” in height. The narrow leaves are flat to slightly rounded near the base, and become more cylindric toward the tip. The flowers are lateral clusters of 1 to 7 spikelets. This species is especially good for stabilizing or restoring disturbed or degraded areas, for erosion and slope control, and for wildlife food and cover. The seeds are a choice food for wetland birds and the stems provide nesting habitat for birds.
Open Water Floating-Leaf Species

Open water floating-leaf plants offer some of the most beautiful, ornate flowers of any aquatic plants. In addition, these plants offer benefits such as nutrient filtration, food for waterfowl, and their large leaves provide desirable shade to fish.

**American Lotus**

* (Nelumbo lutea)

The American lotus is a perennial plant that is often confused with the water lily. Leaves are simple, round, bluish-green in color, up to 2' in diameter, and are attached to the stem in the center (no slit like the water lily has). Leaves are flat if floating or conical if emergent and can stand up to 3-1/2' above the water's surface while supported by the rigid stem. Flowers are large, up to 10" across and are yellowish-white to yellow with more than 20 petals. The submerged portions of the plant provide habitat for fish and invertebrates, while the acorn-like seeds and rhizomes are a food source for various wildlife.

**Spatterdock**

* (Nuphar lutea)

Spatterdock is a perennial plant with leaves that arise from a large spongy rhizome. The leaves have a slit that makes them appear heart-shaped and are 8" to 16" long by 10" wide. Flowers are spiracle with 6 to 9 green sepals and yellow petals. Both the leaves and flowers can float on the water or stand above it, supported by their thick, round stalks. The submerged portions of the plant provide habitat for fish and invertebrates. In addition, the leaves, seeds, and rhizomes offer food to a number of mammals and waterfowl.

**White Water Lily**

* (Nymphaea odorata)

The White Water Lily is a perennial herb with a rhizome root structure. Durable round stalks emerge from the rhizome to support large, round leaves, approximately 4" to 10" wide, that float at the water's surface. By mid-summer, showy white flowers float at the water's surface. Lilies serve as important fish cover, especially for largemouth bass. The seeds, rhizomes, flowers, and leaves of this floating leaf plant are consumed by many wildlife species. White water lilies also help prevent shoreline erosion by slowing wave action.