

Coastal Landscaping in Massachusetts

Plant Highlights and Images: Grasses and Perennials

This PDF document provides graphics and additional information to supplement the Massachusetts Office of Coastal Zone Management (CZM) [Coastal Landscaping Website](#).

The following list provides descriptions and photographs of some of the most common and useful grasses and perennials appropriate for coastal landscaping projects in Massachusetts. Unless otherwise noted, the listed plants are *native* to Massachusetts. For more coastal plants, see [Plant Highlights and Images](#) for PDF fact sheets on Shrubs/Groundcovers and Trees.

Grasses and Perennials

American Beachgrass (*Ammophila breviligulata*)



Photo: Massachusetts Office of Coastal Zone Management (CZM)

American beachgrass is the best species for the initial stabilization of fronting dunes (the dunes closest to the beach). The strong and fast-growing underground rhizomes (root-like underground stems) spread beneath the sand and give rise to many new plants, helping to colonize the species in dune environments. Beachgrass is also tolerant of intense heat, excessive sunlight, and drying winds and will grow on sandy or other coarse-grained soils. The best time to plant beachgrass in New England is from October 1 to April 30, when the ground is not frozen. Beachgrass tends to need the build-up of sand supplied by wind or waves to provide nutrients, avoid the build-up of thatch, and build healthy rhizomes. If sand over-topping does not happen naturally, fertilizers may be required to provide the necessary nutrients, and mowing may be necessary to prevent thatch. For more information on planting beachgrass, see the [CZ-Tip - Dune Building with Beachgrass](#).

American Dunegrass (*Leymus mollis*)



Photo: Gordon Leppig and Andrea J. Pickart, Wikimedia Commons

American dunegrass, also known as sea lyme-grass, is a native grass tolerant of salt spray and salty soils. Dunegrass grows to a height of 6 feet and forms clumps along coastal dunes and also on sand and gravel beaches. This grass species has green foliage and inconspicuous yellow flowers and brown fruits/seeds. The greatest bloom occurs in the late spring, with fruit and seed production starting in the summer and continuing until fall. American dune grass dies back under stress but comes back when conditions become favorable. Dunegrass has a long life span relative to most other plant species and a rapid growth rate. This grass is useful for soil stabilization and forage. The subspecies *mollis* is considered endangered in Massachusetts.

Grasses and Perennials

Beach Pea (*Lathyrus japonicus*)



Photo: CZM

Beach pea is a sprawling perennial vine that grows in beach and dune environments. The leaves are divided into several segments and curling tendrils extend from leaf ends. Beach pea has showy purple or pink flowers and smooth, stalk-less seed pods that contain small peas. The peas are eaten by animals, such as deer, mice, and birds, but they are not safe for human consumption because they contain a paralyzing agent. The flowers are an attractive food sources for bees and butterflies. The beach pea's extensive native range is due to the ability of the seeds to remain viable in seawater up to 5 years. The plant can germinate when the tough seed shell is broken open by abrasion with the sand. Once established, the roots of the beach pea help bind soils of beaches and dunes.

Big Bluestem (*Andropogon gerardii*)



Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Big bluestem (also known as turkey foot) is a tall, warm-season grass that grows 4 to 8 feet high. It has an upright stature, interesting flowers and seed heads that resemble a turkey's foot, and leaves that change colors throughout the seasons. Big bluestem is drought tolerant once established, thrives in both heavy and sandy soils, and is moderately tolerant of salinity. This sod-forming grass will spread vigorously by rhizomes when provided with adequate moisture, while it will have a clumping, bunchgrass appearance under more arid conditions. Big bluestem can be used as an accent in native plant gardens, as a tall screen or hedge, or to stabilize soils and/or provide protection against wind erosion. Big bluestem also provides shelter and seeds for birds and insects.

Black Grass (*Juncus gerardii*)



Photo: Alexey Zinovjev and Irina Kadis, Salicicola

Black grass, also known as salt meadow rush or salt marsh rush, is a loosely tufted, perennial herb. It grows from 1 to 2 feet tall and has rounded stems, grass-like leaves located on the lower half of the stem, and small green-brown flowers in dense spikes or in loose clusters. The flowering and fruiting period occurs from spring through summer. This grass spreads by rhizomes and forms extensive colonies in coastal estuaries and salt marshes just above the high-tide line, where it is flooded only by the most extreme tides of each month. Black grass can also be grown on more inland sites. The rigid stems growing from fibrous roots make it a good plant for erosion control. Its adaptability to wet sites makes it a good plant for water or rain gardens, stormwater basins, low areas of the yard subject to flooding, and coastal gardens. The dense cover of black grass provides good shelter for birds and small mammals.

Grasses and Perennials

Coastal Panic Grass (*Panicum amarum* var. *amarulum*)



Photo: USDA-NRCS PLANTS Database

Coastal panic grass, a native grass that grows to heights of 3 to 6 feet, has a deep, fibrous root system that makes it an effective stabilizer of secondary sand dunes (the dunes landward of the dune closest to the beach). Panic grass will generally only survive where other species have initially stabilized the location. This grass will tolerate moderate saline overspray, but will not tolerate large deposits of sand. Due to its upright and hedge-like form and winter persistence, panic grass is useful for creating wind barriers and for creating wildlife cover on sandy coastal soils. If the coastal variety cannot be found at local nurseries, bitter panic grass (*Panicum amarum*) or switchgrass (*Panicum virgatum*), can also be planted on sandy soils. (not native; native to New Jersey south to Mexico)

Eastern Showy Aster (*Eurybia spectabilis*)



Photo: Alexey Zinovjev and Irina Kadis, Salicicola

Eastern showy aster is a tall (1 to 2 feet), native, perennial herb with lance-shaped leaves and showy clusters of flowers (violet-purple rays surrounding a yellow disc) that bloom from August to October. Showy aster forms clones and clumps and spreads by underground rhizomes with new shoots growing at the end of the rhizomes and bases of old stems. This aster is easily cultivated and becomes well established in dry, sandy, grassland habitats. Because eastern showy aster is tolerant of offshore winds and salt spray, it is often seen in pine barrens near the shore.

Indian Grass (*Sorghastrum nutans*)



Photo: Elaine Haug @ USDA-NRCS PLANTS Database

Indian grass is a tall, warm-season grass that grows from 3 to 8 feet high. In the fall, the slender, blue-green leaves of this hardy upright grass turn yellow, and the towering stiff stems topped with narrow, plume-like auburn flower heads turn deep orange or purple. Indian grass prefers full sun, is tolerant of a wide range of soil types, and is moderately drought and salinity tolerant. Indian grass can be grown in bunches or as single stems mixed with other grasses and is useful for erosion control. The seeds provide food for birds and mammals and the grass provides excellent nesting material and cover for wildlife.

Grasses and Perennials

Little Bluestem (*Schizachyrium scoparium*)



Photo: Joseph A. Marcus, Lady Bird Johnson Wildflower Center

Little bluestem is one of the most widely distributed native grasses in North America. It is a medium-height grass with plant height ranging from 18 inches on dry sites to 3 feet on fertile soils. Little bluestem begins growth in late spring and continues through the summer until the first killing frost. It will grow on a wide variety of soils, but is adapted to well-drained, medium-to-dry, infertile soils. The plant is tolerant of drought and shade but is fairly intolerant of flooding. Because of its adaptability to a wide range of soil conditions, little bluestem is useful as a component of re-vegetation mixes and for soil stability. Little bluestem provides cover for ground birds and small mammals and the numerous seeds provide food for songbirds.

Pennsylvania Sedge (*Carex pensylvanica*)



Photo: Alexey Zinovjev and Irina Kadis, Salicicola

Pennsylvania sedge is a low, clump-forming, grass-like perennial growing 6 to 12 inches high. This native plant with pale green, arching leaves and a cluster of brown seed capsules high on the stem forms soft 15-inch clumps that spread quickly. This sedge grows well in either sunny or shady areas, prefers dry-to-moist soils, binds the soil with its dense roots, and remains lush even in sandy soils. Though noninvasive, the creeping foliage can form dense mats that function well as a traditional lawn, yet will not require mowing, fertilizing, or chemicals. If mowing is preferred, this sedge looks best cut two to three times per year at 3 to 4 inches high. Pennsylvania sedge can be planted from plugs 6 to 12 inches on center in the fall or spring. Its rhizomatous, turf-forming habit provides excellent ground cover for wildlife, and the seeds are a source of food for a number of birds and small mammals.

Pink Tickseed (*Coreopsis rosea*)



Photo: Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Pink tickseed is a low-maintenance, fine-textured, perennial reaching a height and spread of 1 to 2 feet. The grass-like, green leaves give an open and delicate appearance to the plant, while the pink, daisy-like flowers bloom profusely from June through September. This plant prefers full sun and medium moisture, yet can tolerate dry, shallow, and rocky soil. Plants can spread by rhizomes and can easily self-seed to form a dense bushy groundcover. The flowers attract butterflies and the seeds are eaten by birds. Pink tickseed is useful as an accent in native gardens or rock gardens, as ground cover, and as edges for borders, foundations, and paths. (This plant does best when planted away from direct exposure to salt spray.)

Grasses and Perennials

Poverty Dropseed (*Sporobolus vaginiflorus*)



Photo: Sam C. Strickland, Lady Bird Johnson Wildflower Center

Poverty dropseed is a native, annual grass that grows about 8 to 12 feet tall and wide in a tuft-forming cluster. The culms, which are light greenish-purple and wiry, terminate in a spike-like panicle with spikelets that are pink, purple, or pale green and often shiny. Most plant growth occurs during the summer, while the blooming period occurs during the early fall. Poverty dropseed grows best in full sun, dry conditions, and barren soil containing sand or gravel, and can withstand drought conditions and drying winds. Poverty dropseed primarily spreads by reseeding itself. The seeds are also a potential food source for birds, particularly during the winter. (This grass does best when planted away from direct exposure to salt spray.)

Purple Lovegrass (*Eragrostis spectabilis*)



Photo: Damon E. Waite, Lady Bird Johnson Wildflower Center

Purple lovegrass is a native, warm season, perennial bunchgrass that grows from 1 to 3 feet in height and width (though some commercial varieties can reach heights up to 10 feet). This low-maintenance grass is tolerant of drought and full sun and performs best in sandy or gravelly soils in hot, dry locations. The showy reddish-purple flowers bloom from July to August and are valued for their soft, hazy appearance when grown in mass and for dry flower arrangements. If not cut, the flower heads tend to break off and blow like tumbleweeds, dispersing seeds as they go (deadheading the seed heads will therefore limit the reseeding and spread of this grass in the landscape). The grass can also spread by rhizomes under the ground, which makes it an effective groundcover or for mass plantings. (This grass does best when planted away from direct exposure to salt spray.)

Red Columbine (*Aquilegia canadensis*)



Photo: Andy and Sally Wasowski, Lady Bird Johnson Wildflower Center

Red columbine is a perennial herb growing up to 2 feet tall with attractive, red-and-yellow, downward-facing tubular flowers that bloom from March to July. Red columbine can grow in a wide range of habitats from rich woods to rocky cliffs to beach borders. This columbine is a popular garden perennial because it is hardy, tolerates shade and a wide range of soil conditions, and can easily regenerate by seed. The flowers provide an important source of nectar for hummingbirds, bees, and butterflies. (This plant does best when planted away from direct exposure to salt spray.)

Grasses and Perennials

Red Fescue (*Festuca rubra*)



Photo: Robert Soreng @ USDA-NRCS PLANTS Database

Red fescue is a cool season, sod-forming grass that grows up to 2 feet tall with bright green, wiry leaves and narrow panicle seed heads. Red fescue is hardy, adapted to sandy and acidic soils, and has a high tolerance for cold temperatures and shade, a moderate tolerance for drought and trampling, and a low tolerance for heat. Red fescue does not require much fertilizer or excessive amounts of water to grow. This grass is extremely useful for stabilizing the slopes of waterways and banks, as well as providing turf for lawns, athletic fields, and playgrounds. Red fescue is often found in grass seed mixtures, particularly those for shady areas.

Saltmarsh (Smooth) Cordgrass (*Spartina alterniflora*)



Photo: CZM

This long-lived, perennial grass is primarily found on the tidal areas of open coastal marshes and therefore tolerates regular inundations. The plant grows to 7 feet tall and spreads by long, hollow rhizomes. The flat leaf blades are typically 12 to 20 inches long. Saltmarsh cordgrass is often planted for shoreline protection and tidal marsh restorations (the root system helps stabilize the marsh mud). Hand planting of the stems is the best way to establish plants—up to 2 feet of lateral spread can be expected annually. Besides acting as habitat for other plants and animals, the roots and shoots of cordgrass provide food for wetland mammals and waterfowl.

Saltmeadow Cordgrass (*Spartina patens*)



Photo: CZM

This native, perennial grass grows from 1 to 3 feet tall and spreads extensively by long, slender rhizomes. Although typically associated with tidal salt marshes, saltmeadow cordgrass also naturally occurs in back dune areas, particularly within dune troughs (low points between dunes). It is dominant in these areas since most other sand dune species cannot tolerate wet- to saturated-soil conditions. Saltmeadow cordgrass will tolerate irregular inundations with significant amounts of salinity. The trailing rhizomes of saltmeadow cordgrass are slender but form dense mats near the surface, offering effective sand dune stabilization. It can be grown and established on normal sites using freshly harvested stems (culms) or containerized plants. From late June to October, an inflorescence emerges at the end of the stem. Saltmeadow cordgrass also provides food and cover to a number of animals.

Grasses and Perennials

Sea Lavender (*Limonium carolinianum*)

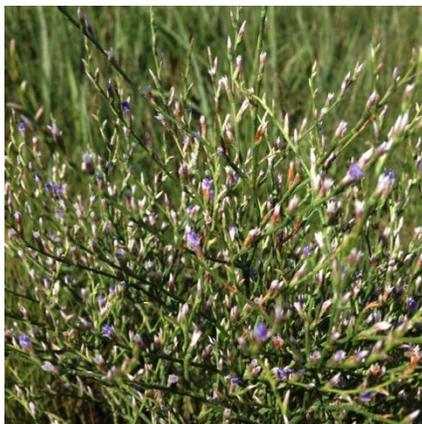


Photo: CZM

Sea lavender, also known as lavender thrift or seaside thrift, is a perennial, salt-marsh plant that grows 1 to 2 feet high and has abundant, small, pale-purple flowers on branching clusters. Sea lavender blooms create the appearance of a delicate purple mist on the salt marsh during the late summer and early fall. This plant is adapted to a wide range of soil textures, but requires plentiful moisture. The moderate growth of sea lavender is primarily through its horizontal rhizomes, rather than seed. Because sea lavender's attractive calyx (the outer enclosure of the flower) remains on the plant when the true flowers are gone, it is often grown for the flowers and used in dried flower arrangements.

Sea Rocket (*Cakile edentula*)



Photo: CZM

Sea rocket is a native perennial, growing 6 to 20 inches in size, with pale lavender to white flowers that bloom from July to September. Sea rocket is found on beaches above the high tide line and sometimes in dunes. Sea rocket prefers sunny locations with sandy, well-drained soils. It can grow in nutritionally poor soil and can tolerate strong winds. The stems and leaves are fleshy. The flowers are pollinated by bees, flies, beetles, moths, and butterflies. The seeds are dispersed through the fruits that break into segments and are able to travel distances in the water before washing ashore, breaking open, and generating new growth.

Seabeach Sandwort (*Honckenya peploides*)



Photo: Alexey Zinovjev and Irina Kadis, Salicicola

Seabeach sandwort is a hardy, perennial herb with numerous stems and succulent leaves that grows from 4 to 16 inches high. The honey-scented, white-to-pale-yellow flowers bloom from May to August and are pollinated by insects, wind, wind-blown sand, or self-pollination. Seabeach sandwort is commonly found growing on sandy coastal beaches and dunes and is tolerant of salt spray and occasional salt-water immersion. Seabeach sandwort requires an open, sunny position and prefers well-drained, light-sandy or medium-loamy soils, both of which can be nutritionally poor. This plant spreads by rhizomes and is able to effectively form clumps or mats, which is particularly useful for beach and dune stabilization and dune formation.

Grasses and Perennials

Seaside Goldenrod (*Solidago sempervirens*)



Photo: CZM

Seaside goldenrod is a native perennial that is well adapted to the landward side of fronting dunes, low secondary dunes, and edges of salt marshes. The fleshy, waxy leaves growing abundantly along the entire length of the stem help retain moisture that would otherwise be lost to the drying effect of salt spray. The plant typically grows 3 to 5 feet tall. In late winter, red leaves arise through the sand surface and soon become dark green. In late summer and early fall, the bright yellow flowers—which are larger than those of the typical goldenrod—provide a striking contrast to the green vegetation.

Spike Grass (*Distichlis spicata*)



Photo: Alexey Zinovjev and Irina Kadis, Salicicola

Spike grass, or seashore salt grass, is a grey-green, perennial grass that grows from 1 to 3 feet high with wiry, stiff stems and flat, short leaves along the stems. The yellowish flower panicles bloom from June to October and turn tan as they dry. Spike grass forms dense mats, spreading by rhizomes and sometimes stolons (horizontal stems near the soil surface) and can rapidly colonize new areas. This grass commonly forms patches in the high salt marsh but can also be found in the troughs of back dune areas and in salt or mud flats along the coast. Though well adapted to wet sites, spike grass shows a high drought tolerance and has been documented as growing in drier forest sites and desert scrub habitats. Spike grass provides excellent nesting grounds for birds, fish, and larvae of many species of marine invertebrates.

Sweet Goldenrod (*Solidago odora*)



Photo: Mrs. W.D. Bransford, Lady Bird Johnson Wildflower Center

Also known as anise-scented goldenrod because the leaves give off the scent of licorice when crushed, this clump-forming perennial herb can grow from 2 to 5 feet high. The dark-green, lance-shaped leaves can be used in teas and as an herbal remedy for many ailments. The flowers—large, bright yellow terminal clusters—appear in late summer and continue to bloom into mid fall. Sweet goldenrod is well adapted to dry, open habitats and acidic and sandy soils and is extremely drought tolerant once established. It tolerates partial shade, but performs best in full sun. Sweet goldenrod is commonly found in the woods and fields across the coastal regions of Massachusetts but can be used for borders or in flower and herb gardens. Goldenrods provide nectar for bees and butterflies and seeds for many song birds—and contrary to popular belief, it is ragweed, not goldenrod, that causes seasonal allergies. (This plant does best when planted away from direct exposure to wind and salt spray.)

Grasses and Perennials

Switchgrass (*Panicum virgatum*)



Photo: CZM

Switchgrass is a perennial, clump-forming, warm-season grass, 3 to 6 feet high, with open, lacy sprays and reddish-purple seedheads. New foliage emerges fresh from the base in spring, and the bright green leaves that grow along the stem turn bright yellow in the fall. Switchgrass is well adapted to a wide range of soil conditions, ranging from shallow and dry soils to poorly drained sites and even brackish marshes. Its adaptability to both wet and dry conditions makes it an appropriate choice for a rain garden. Switchgrass, with its deep, fibrous roots, is an excellent soil stabilizer on banks, sand dunes, and other erosion-prone areas. It can also provide a low windbreak for other plants. Switchgrass provides cover, nesting material, and seeds for birds and small mammals.

Wavy Hairgrass (*Deschampsia flexuosa*)



Photo: Alexey Zinovjev and Irina Kadis, Salicicola

Wavy hairgrass is a fine-textured, cool-season bunchgrass that grows from 8 to 12 inches high. It has delicate, spray-like spring flower heads on wavy, hair-like evergreen stems. The soft texture and tiny masses of seed heads effectively catch the sunlight. Wavy hairgrass is tolerant of shade, is very winter hardy, offers fall and winter seeds for birds and small mammals, and has a clump-forming habit that provides protective cover for many species of wildlife. (This grass does best when planted away from direct exposure to salt spray.)

Photographs and data courtesy of:

- Lady Bird Johnson Wildflower Center. 2013. Native Plant Database and Image Gallery. University of Texas at Austin. (<http://www.wildflower.org/explore>)
- Salicicola. 2013. Eastern Massachusetts Vascular Plant Gallery. (<http://www.salicicola.com>)
- United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 2013. PLANTS Database. National Plant Data Center, Baton Rouge, LA. (<http://plants.usda.gov>)
- Wikimedia Commons. 2010. (<http://commons.wikimedia.org>)

A **native plant species** is a plant that is considered indigenous and naturally occurring to the region since pre-Colonial times (before 1500) or arriving more recently without human intervention. For purposes of this plant list, a native plant is one that occurs naturally in eastern Massachusetts.

A **non-native plant species** is a plant that is non-indigenous and not naturally occurring to the region. (For purposes of this plant list, the region is eastern Massachusetts with an emphasis on the coastal environments.) When non-native species enter into an ecosystem, they have the potential to disrupt the natural balance, reduce biodiversity, degrade habitats, alternative genetic diversity, and transmit exotic diseases to native species. However, not all non-native plants are invasive. Non-native plants that are not considered invasive are those that generally do not rapidly disperse, become established, or create self-sustaining or dominant populations that would be disruptive to the natural ecosystem. CZM recommends the use of natives wherever possible but has included certain non-native species in this list that have specific coastal landscaping advantages and no known environmental impacts.