United States Department of Agriculture

Natural Resources Conservation Service

Plant Guide

AMERICAN BEACHGRASS

Ammophila breviligulata Fernald

Plant Symbol = AMBR

Figure 1: American beachgrass grows in a native coasstal dune environment.

Alternative Names
Common Names: American marram grass, ammophile á ligule courte, beach grass, coastal beachgrass, dune grass, gourbet, marram grass, psamma grass, sea sandreed

Scientific Names: Ammophila arenaria Link var. *breviligulata* Fernald (Stalter et al., 2024), *Calamagrostis breviligulata* (Fernald) Saarela (Saarela, et al., 2017; Plants of the World Online [POWO], 2025)

Description
General: American beachgrass, is a leafy, spreading, strongly rhizomatous, native, bunch grass with many stems per clump. This cool season perennial grass species can spread 3.9-11.5 feet annually by rhizomes (Maun, 1985). It is capable of spreading over 40 feet from a parent plant to vegetative clones produced from rhizomes (Silberhorn, 1999). This ability to colonize makes this grass valuable for dune stabilization. It may reach a height of 1-4.9 feet tall, tolerating up to 1 foot of annual over-topping accumulations of sand (Duncan & Duncan, 1987; Graetz, 1973; Maun & Lapierre, 1984; Radford et al., 1968). Leaves are long (4-31.5 inches) and narrow (0.16-0.3 inches) (Gleason & Cronquist, 1963; Hosier, 2018; Stalter et al., 2024). They prominently display parallel venation with 10-12 veins running from the basal end to the leaf tip (Petry & Norman, 1968). The leaf upper surface and edges are rough to the touch while the underside is smooth (Gleason & Cronquist, 1963; Salter et al., 2024). They usually become rolled or folded as the plant matures (Fernald, 1950; Salter et al., 2024). Near the southern extent of the species' native range, leaves remain partly green over the winter, while farther north they turn yellowish, golden straw color (Graetz, 1973). The seed head is a spike-like panicle that can range from 4-15.7 inches long and 0.4-1.0 inches wide (Gleason & Cronquist, 1963). It is composed of many tightly compressed spikelets (0.3-0.6 inches long), each containing one wind pollinated flower (Duncan & Duncan, 1987; Fernald, 1950; Hosier, 2018). The cylindrical spike-like inflorescence usually forms in late July or August with the flowering period lasting as late as October (Duncan & Duncan, 1987; Hosier, 2018; Tanacredi & Badger, 1995). Flowering can be erratic with adjacent stands producing drastically varied numbers of seed heads and with wide variation year to year (Maun, 1985). As seeds mature, the seed heads turn from green to a pale yellow or light gray, sometimes with slightly purplish hues (Brown, 1979; Fernald, 1950; Silberhorn, 1999). Seed can range from 0.12-0.14 inches long (Fernald, 1950). Seed production is generally low in wild populations with the percentage of florets producing viable seed ranging from 21-48% (Hosier, 2018; Krajnyk & Maun, 1982; Maun, 1985; Stalter et al., 2024). American beachgrass is similar in appearance and may easily be confused with its closely related European counterpart, European beachgrass (*Ammophila arenaria*). However, several key traits can be evaluated to distinguish between the two species. European beachgrass generally has shorter seed heads (3.9-7.9 inches) (Duncan & Duncan, 1987). The ligule of the two species provides the most distinctive difference between them: European beachgrass has a thin, long, pointed ligule (0.4-1.2 inches) whereas American beachgrass has a firm, flat-topped, short ligule (0.04-0.12 inches) (Hitchcock, 1951; Mostow et al., 2021).

Distribution: American beachgrass grows most commonly in the coastal dune environments of the Atlantic coast (Hosier, 2018; Stalter, 1992). Its native range extends from the Newfoundland Province of Canada down the Atlantic coast to South Carolina and includes the shores of the Great Lakes region (Hitchcock, 1951; Hosier, 2018; Mostow et al., 2021). It is reported as an introduced species in coastal areas of Japan and on the west coast of North America from British Columbia south to California (Askerooth et al., 2024; Pickart, 2021; POWO, 2025). For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

Habitat: The genus *Ammophila* derives its name from the Greek words for "sand" (ammos) and "loving/fond of" (philos) which clearly describes the sandy coastal dune environment that American beachgrass often dominates (Hitchcock, 1951; Stalter, 1992). American beachgrass thrives in sand accumulating areas of coastal bluffs, dunes, and sandy shores (Gleason & Cronquist, 1963; Stalter et al., 2024; Tanacredi & Badger, 1995). It commonly occurs in the loose sands of sandy beaches of barrier islands along the Atlantic coast that are subject to brackish sea salt spray (Duncan & Duncan, 1987; Tanacredi & Badger, 1995).

Primarily in the eastern extent of the Great Lakes region, American beachgrass may grow in association with Champlain beachgrass (*Ammophila champlainensis*) (Federal Geographic Data Committee, Vegetation Subcommittee [FGDC], 2025). More generally for the Great Lakes region, American beachgrass grows in association with kinnikinnick (*Arctostaphylos uva-ursi*), prairie sandreed (*Calamovilfa longifolia*), creeping juniper (*Juniperus horizontalis*), sand cherry (*Prunus pumila*), and little bluestem (*Schizachyrium scoparium*) (FGDC, 2025).

Along the Atlantic coastal region, American beachgrass may grow in association with old woman (*Artemisia stelleriana*), eastern baccharis (*Baccharis halimifolia*), American searocket (*Cakile edentula* ssp. *edentula*), sanddune sandbur (*Cenchrus tribuloides*), seaside sandmat (*Chamaesyce polygonifolia*), Gulf croton (*Croton punctatus*), largeleaf pennywort (*Hydrocotyle bonariensis*), seacoast marsh elder (*Iva imbricata*), beach pea (*Lathyrus japonicus* var. *maritimus*), beach pinweed (*Lechea maritima*), northern bayberry (*Morella pensylvanica*), seabeach evening primrose (*Oenothera humifusa*), devil's-tongue (*Opuntia humifusa*), bitter panicgrass (*Panicum amarum*), coastal panicgrass (*Panicum amarum* var. *amarulum*), Virginia creeper (*Parthenocissus quinquefolia*), coastal jointweed (*Polygonella articulata*), beach plum (*Prunus maritima*), shore little bluestem (*Schizachyrium littorale*), little bluestem, seaside goldenrod (*Solidago sempervirens*), saltmeadow cordgrass (*Spartina patens*), seashore dropseed (*Sporobolus virginicus*), amberique-bean (*Strophostyles helvola*), sea oats (*Uniola paniculata*), and Canada cocklebur (*Xanthium strumarium* L. var. *canadense*) (FGDC, 2025; Graetz, 1973; Hosier, 2018; Perry, 1985; Stalter, 1992).

Adaptation

American beachgrass is well adapted to grow on the shifting sands of coastal dune sites. An outstanding growth characteristic that makes it well adapted to grow in such environments is the strong rhizome network it produces. The rhizomes spread beneath the sand and give rise to many new plants. Its vigorous growth in sand-accumulating environments enables the plant to withstand heavy deposits of sand and grow up through it. In situ dune trials demonstrated successful plant emergence with greater than 60% survival following burial to a depth of 1.3 feet. Survival was greatly reduced (less than 4%) at the maximum sand burial depths of 3.3 and 3.9 feet, but some plants successfully emerged (Maun & Lapierre, 1984). American beachgrass is tolerant of the saline conditions that often accompany severe maritime exposure in coastal dune environments. Germination trials indicate the maximum NaCl solution tolerance is around 10 parts per thousand (ppt) with germination greatly reduced from an average of 90.7% to 26.7% at 5 ppt (Seneca, 1969). Seedling salinity tolerance trials demonstrated a similar tolerance range. American beachgrass seedlings maintained positive growth rates and a healthy appearance up to 10 ppt NaCl solution treatments. Seedlings showed clear signs of salt stress (rolled and yellowed to necrotic leaves) and severely reduced growth rates with 20 ppt NaCl solution treatments (Seneca, 1972). A salt tolerance adaptive structural feature of American beachgrass is the positioning of its growth buds. Similar to other dune species, such as saltmeadow cordgrass, bitter panicgrass, sea oats, and seashore dropseed, growth buds are below the sand surface. This provides the plant with a degree of protection from salt spray in the coastal environment by avoiding direct contact (Hosier, 2018). It also has leaf structure and function adaptations to minimize water loss due to the desiccating winds and severe solar radiation intensity present in coastal dune areas. The leaves will roll or fold in on themselves when exposed to intense heat, excessive sunlight, or drying winds (Maun, 1994; Emery et al., 2010; Hosier, 2018). This action helps to protect and insulate the upper leaf surface from the harsh environmental conditions. Because the stomata of American beachgrass are only positioned on the upper leaf surface (unlike many other grass species that have stomata on upper and lower leaf surfaces), this leaf rolling action further reduces evaporative water loss by shielding the gas exchange openings (Charbonneau & Balsamo, 2015; Stalter & Lonard, 2024). Like many other drought tolerant plant species, the stomata of American beachgrass are situated in a lowered cavity on the leaf to further reduce gas exchange and reduce water loss (Ustin & Jacquemoud, 2020).

American beachgrass prioritizes clonal vegetative reproduction over sexual reproduction as evidenced by poor seed production typical to the species (Krajnyk & Maun, 1982). Although establishment by seed is rare, the florets produced by American beachgrass are hardened and have physical adaptations to assist with dispersal of the tightly enclosed seed in coastal environments via wind and water dispersal (Maun, 1985; Stalter et al., 2024). The large surface area of the seed-containing floret in contrast to the small, enclosed seed makes the entire structure better adapted for long distance dispersal. This improves opportunities to be transported by wind and carried by floatation on moving water in tidal environments to establish in new areas (Maun, 1985). In seed floatation studies, Maun (1985) demonstrated the floating capabilities of seed-containing florets with minimal seed sinking after 3 days and over 50% of the florets continuing to float after 4 days. A small number of seeds (20/500) were still afloat at the conclusion of the study (10 days). Fragmentation and floatation of rhizomes is an additional adaptation to the coastal environment that provides an alternative asexual reproduction method. In rhizome fragment floatation trials, 50% of fragments stayed afloat for 60 hours (Maun, 1985).

American beachgrass will grow on sandy, low fertility, slightly acid soils. It prefers sunny sites, having a low degree of shade tolerance. It does not tolerate much soil moisture before showing signs of stress (Lorenz, et al., 1989). Greenhouse trials simulating waterlogged soils displayed significant differences in plant performance. After 3 months of four varying water level treatments (no standing water [control], 5.91 inches below soil surface, at soil surface, and 1.18 inches above soil surface), wild collected seedlings in the control treatment group displayed statistically significantly greater average height, shoot mass, and root mass than all other water level treatments (Shumway & Banks, 2001).

Although American beachgrass habitat is rarely subject to natural fire occurrences, the species displays some degree of fire tolerance. An American beachgrass stand was subject to an inadvertent growing season burn at Apostle Islands National Lakeshore in Wisconsin. National Park Service staff conducted a study examining the impacts on the burned vegetation using an adjacent unburned area as a basis of comparison. Post-burn data collection indicated that the majority of American beachgrass plants survived the fire and displayed substantial regrowth. Burned plants reached on average 90% of the height of unburned plants 3 months after the burn (Burkman, 2008).

Uses

Conservation Practices: American beachgrass is recommended for dune stabilization plantings under the NRCS Critical Area Standard (342) (Salon & Miller, 2012). It has been used for dune stabilization through rehabilitation of vegetatively sparse dunes and vegetating newly constructed dunes in the Mid-Atlantic coastal region and Great Lakes region for generations (Gibbons, 2025; Sheahan, 2014; Slaymaker et al., 2015). American beachgrass is one of the most common species used for the initial stabilization of frontal dunes (Kranjnyk & Maun, 1982). If site conditions are appropriate and specific criteria for the conservation practice standard are met, American beachgrass could have beneficial applications as an erosion control plant for critical area plantings outside of the coastal dune environment. These may include mined land reclamation sites, roadsides, and steep slopes where soils are very sandy or inherently droughty, and the site conditions make establishment of seeded species very difficult (Salon & Miller, 2012). In addition to erosion control, American beachgrass also provides phytoremediation benefits for heavy metal contaminated mined land reclamation applications. Studies indicate that American beachgrass has strong stabilization and extraction capabilities for a suite of heavy metal pollutants resulting from mining activities (Shi et al., 2023). Trial plantings on coal mining waste material sites (gob piles) in West Virginia displayed high (90%) initial American beachgrass survival rates at the end of one growing season. Survival declined in following years, but the introduction of American beachgrass was credited as the catalyst that altered the waste deposit area enough to foster the natural recruitment of native plant species from nearby communities (Bowers, 2000; Glennon & DePue, 2010). It is also recommended for use on acidic soils high in salinity, such as dredge spoil banks and sites amended by dredge material which need vegetative cover (Salon & Miller, 2012; Snell, 2026a). In these applications, American beachgrass may only survive a few years, but it plays a valuable role in jump-starting plant succession (Salon & Miller, 2012).

If site conditions are appropriate and specific criteria for the conservation practice standard are met, American beachgrass may have beneficial applications for NRCS Conservation Practice Standards Conservation Cover (327), Wildlife Habitat Planting (420), Restoration of Rare or Declining Natural Communities (643), Upland Wildlife Habitat Management (645), and Early Successional Habitat Development/Management (647).

Wildlife: American beachgrass plays an important role for many coastal shorebird species. It is one of the most dominant plant species in the coastal dune system that provides critical nesting habitat to the federally threatened piping plover along its Atlantic Coast migratory route (Dorsey et al., 2025; Robinson et al., 2021; U.S. Fish and Wildlife Service [USFWS], 2025). It is also a dominant plant species of the dune systems in the Great Lakes region where the piping plover is listed as a federally endangered species (Flemming et al., 1992; Powell & Cuthbert, 1992; USFWS, 2025). Bunches of American beachgrass provide shelter from the harsh coastal elements and cover from predators (Liguori & Jenkins, 2003). American beachgrass is closely associated with invertebrates that constitute the piping plover diet. The roots are a food source for the marram weevil, and the click beetle often cohabitates with American beachgrass (Majka & Shaffer, 2008). Least terns (state listed as endangered in New Jersey) and roseate terns (federally and state listed as endangered in New Jersey) prefer nesting in areas vegetated with American beachgrass (Jenkins, 2003; Liguori, 2003; USFWS, 2025). The Ipswich sparrow (federally listed as a species of Special Concern by Canada and state listed as Special Concern by New Jersey and Connecticut) depends on American beachgrass seed as a major constituent (about 33%) of its diet (Committee on the Status of Endangered Wildlife in Canada, 2024; Connecticut Department of Energy and Environmental Protection, 2026; New Jersey Fish and Wildlife [NJFW], 2026; Perry, 1985). Many other coastal avian species such as a variety of gull and other plover and tern species also nest and raise their hatchlings in the dune habitat where American beachgrass is the dominant vegetation (Maun, 2009). The red-breasted merganser primarily builds nests that require access via vegetative tunnels in dense stands of American beachgrass in coastal areas of eastern New Brunswick to conceal the nests from avian predators (Craik & Titman, 2009). Some avian species that have more general habitat preferences and are not specifically specialized for coastal habitats still make use of the beachgrass dune environment. The state endangered (MA and NJ) short-eared owl builds ground nests primarily in dense matted-down stands of American beachgrass near the shores of Cape Cod, Massachusetts (Holt, 1992; Massachusetts Division of Fisheries and Wildlife, 2024; NJFW, 2026).

American beachgrass is also consumed by large and small mammals. Feral horses on Sable Island, Nova Scotia and Assateague Island, MD/VA have historically grazed on American beachgrass as a primary constituent of their diet for hundreds of years (McLoughlin et al., 2016; Seliskar, 2003). Different parts of the plant provide a critical and preferred food source throughout the year for the beach vole, a species endemic to Muskeget Island, in Nantucket, MA (Goldberg, et al., 1980). The dry prairie habitat of Indiana Dunes National Park is dominated primarily by stands of American beachgrass and provides food and cover for a variety of small mammals. Studies have indicated that the dry prairie habitat supports prairie deer mice, white footed mice, prairie voles, ground squirrels, eastern cottontails, and northern short-tailed shrews (Whitaker et al., 1994).

Caterpillars of the subfamily Danainae (milkweed butterflies) reportedly feed on American beachgrass panicles (Krajnyk & Maun, 1982).

Ethnobotany

The earliest documented use of American beachgrass was for the purpose of dune building and stabilization. In his anecdote of his travel on Cape Cod from Orleans to Provincetown, MA, Dwight (1823) provides details of how American beachgrass plantings were implemented for dune stabilization to maintain the travel route between towns along the length of the peninsula with the Atlantic Ocean on its east and Cape Cod Bay on its west. American beachgrass plantings to combat coastal erosion were of such importance at the time that inhabitants of Truro were required by law to participate in annual dune plantings every April. Dwight exalts of the importance of the plant in his letter writing, “but for this single, unsightly vegetable, the slender barrier, which here has so long resisted the ravages of the ocean, had, not improbably, been long since washed away.” However, Dwight (1823) reported that the conservation benefits of the plantings are nullified to some degree due to the practice of cows owned by inhabitants being allowed to roam and graze the American beachgrass plantings, causing extensive damage.

Status

Threatened or Endangered: American beachgrass is not federally listed and has a global rank of “G5” or “Secure.” By more specific regions, it is ranked as “S5”, “S4”, “S3”, “S2”, or “S1” meaning that it is not legally protected but ranges from “Secure” to “Apparently Secure” to “Vulnerable” to “Imperiled” to “Critically Imperiled” respectively. In Canada it is ranked as “S4” for Ontario and Québec, “S3S4” for Island of Newfoundland, and “S1S2” for Labrador. In the US it is ranked as “S5” in Delaware, New York, and Virginia, “S4” in New Jersey, and “S3” in New Hampshire and North Carolina. It is ranked as “S2” in Illinois, Indiana, Minnesota, and Ohio (NatureServe, 2025).

Wetland Indicator: Upland (UPL) for Atlantic and Gulf Coastal Plain (AGCP), Midwest (MW), Northcentral and Northeast (NCNE); and Western Mountains, Valleys, and Coast (WMVC) regions. Facultative Upland (FACU) for the Arid West (AW) and Eastern Mountains and Piedmont (EMP) regions (U.S. Army Corps of Engineers, 2022).

Weedy or Invasive: American beachgrass is listed in Washington (Washington State Noxious Weed Control Board [WSNWCB], 2025).

This plant may become weedy or invasive in some regions or habitats and may displace desirable vegetation if not properly managed. Please consult with your local NRCS Field Office, Cooperative Extension Service office, state natural resource, or state agriculture department regarding its status and use.

Please consult the PLANTS Web site (http://plants.usda.gov/) and your state’s Department of Natural Resources for this plant’s current status (e.g., threatened or endangered species, state noxious status, and wetland indicator values).

Planting Guidelines

The recommended establishment method of American beachgrass conservation plantings in the coastal dune environment is by vegetative means. Because seed production is sparse and seedling establishment rates are low, establishment by direct seeding is not normally considered as an option (Stalter et al., 2024). Planting stock is usually planted by hand due to the lack of accessibility and agility of mechanized planting equipment to navigate the dune environment terrain. Hand tools such as a tiling or ditching spade or dibble bar are the most frequently used planting tools (Skaradek et al., 2003). Powered augers have also been employed. Bareroot stems (culms) of plants are most commonly used for planting stock as the most widely available and cost-effective form. Nursery produced rooted plugs are increasing in commercial availability and offer higher survivability rates than bare root culms when planted later in the season than within the recommended planting dates (Wootton et al., 2016). Plant dormant, bareroot culms from October 15 to April 1 in the Mid-Atlantic region; the planting window may be extended to April 15 in the cooler climate of the New England region most seasons (Salon & Miller, 2012; U.S. Department of Agriculture [NRCS], 1996; U.S. Department of Agriculture [NRCS], 2026). Summer plantings are not recommended due to the risk of reduced survival because of higher temperatures and drier surface sand which intensify transplant shock to bare root culms. Plant culms approximately 6-8 inches (or ¾ of stem length) deep (Wootton et al., 2016). This keeps the live growth node at the base of the culm away from the heat of the surface sand. It also reduces the chance for the plants to dry out and provides protection from being blown out by strong coastal winds (Skaradek et al., 2003).

Traditional guidance and most sources recommend planting two culms per hole (Hamer et al., 1992; Skaradek et al., 2003). Several sources suggest planting up to three culms per hole to improve survival rates (Mason Lake Conservation District, 2026; Salon & Miller, 2012). Space plants 12-24 inches apart depending upon the severity of erosive factors at the planting site; reduced spacing for increased erosion potential and increased spacing for less severe erosion expectations (Salon & Miller, 2012; Wootton et al., 2016). Plant in staggered rows to provide maximum erosion control. Minimize time between harvest and planting. If divided culms are held for longer than 3 days, keep the live node of the culms moist until planted. Studies have shown that culm viability is significantly reduced (by as much as 62%) after 15 days of dry storage (Snell, 2026b).

In replicated establishment trials on sand dunes conducted by the New Jersey Plant Materials Center in southern New Jersey, individual American beachgrass culms planted following these guidelines consistently showed average survival rates greater than 90% at the end of the growing season they were planted.

Establish nursery production fields in a similar manner to conservation plantings. Site selection is important; American beachgrass is most productive in full sun in well drained, sandy soils (Lorenz et al., 1989). Prepare a weed free seedbed prior to planting. Plant single culms approximately 15 inches apart in row with row spacing to match cultivation equipment (Thornton & Davis, 1964). Production trials conducted at the National Plant Materials Center (Beltsville, MD) indicated that planting additional culms per hole did not increase production rates (Thornton & Davis, 1964). Nursery production is most efficiently accomplished using a mechanical transplanter. Trimming leaves to reduce overall culm length to 12-18 inches prior to planting is not necessary but will not cause damage and may ease handling if planted with a mechanical transplanter.

Management

For coastal dune plantings, Wootton et al. (2016) recommends an initial nitrogen broadcast application but cautions that fertilizer applications should be site appropriate, and that overfertilization can degrade water quality due to leaching of excess nutrients. Alternatives to standard synthetic fertilizer applications include slow-release fertilizer applied directly to the planting hole and organic options for coastal dune sites (Wootton et al., 2016). Once a stand is well established, fertilizer applications will stimulate enhanced growth and productivity and may be applied if the stand appears to be weakening (Augustine & Sharp, 1969; Heyel & Day, 2006). Studies have indicated that fertilizer applications can alleviate and reinvigorate struggling stands weakened due to nematode infestations (Seliskar, 1995). All fertilizer applications should be based on recent local soil test results.

Pedestrian and vehicular traffic that bends or breaks the culms can seriously damage the plants and cause mortalities impeding establishment. Demarcation and/or fencing of establishment plantings in areas with public-use access is strongly advised.

On frontal dunes, areas devoid or with declining communities pose the threat of blowout. Annual maintenance should include replanting stands of American beachgrass where openings or voids have developed.

For nursery production applications, contact your local agricultural extension for soil test analysis and fertilizer application recommendations prior to implementing a fertilization plan.

Pests and Potential Problems

American beachgrass is susceptible to fungal diseases. Marasmius blight infects American beachgrass plant tissue causing the growth of mycelium that effectively fixes the leaf sheaths to the stems where mushrooms form slightly below the soil line. It impacts the vascular system of infected plants, disrupting the transportation of water, minerals, and nutrients (Warren & Lucas, 1972). The disease progresses and spreads causing plant mortality in circular patterns of increasing area; 2-6 feet in diameter for new occurrences and reaching up to 20 feet in diameter as the disease progresses (Lucas et al., 1971; Warren & Lucas, 1972). American beachgrass is a host plant to multiple species that cause ergot disease (Liu et al. 2020). Studies have indicated that the extent of ergot infections can vary widely between populations within the same region as well as year to year depending on weather conditions (Krajnyk & Maun, 1981). Ergot consistently primarily affects and presents symptomatic sclerotia on the bottom two thirds of infected panicles (Krajnyk & Maun, 1981).

American beachgrass is subject to damage by herbivory from a variety of insects. Multiple establishment planting failures in North Carolina have been attributed to scale insect infestations (Odum et al., 1987; Woodhouse et al., 1976; Woodhouse et al., 1977). Several species of gall midges reportedly damage the base of stems by feeding on them, leading to plant decomposition (Gagne, 1975; Seliskar & Huettel, 1993). Seed production is impacted by herbivory by aphids and beetles. Beetles access open florets to consume flowers reducing the opportunity for successful pollination, while aphids feed on emerging panicles (Krajnyk & Maun, 1982).

American beachgrass is host to several species of pathogenic nematodes that appear to be a common contributing factor to the loss of established stands (Seliskar & Huettel, 1993). Handoo et al. (1993) identified the nematode species that causes beachgrass root-knot and confirmed its association with American beachgrass. Root gall nematode is a documented parasite of American beachgrass that causes the formation of galls primarily on lateral roots (Halisky et al., 1977).

Environmental Concerns

American beachgrass is a native species widely used along the US Mid-Atlantic and Great Lakes coastal regions for dune stabilization and restoration applications (Gibbons, 2025; Slaymaker et al., 2015). However, it was introduced for sand stabilization purposes circa 1935 to areas on the Pacific coast where studies have indicated an inverse relationship with native dune plant species, specifically largely outcompeting and replacing American dunegrass (*Leymus mollis* [Trin.] Pilg. ssp. *mollis*), the dominant native dune grass of the Pacific west coast (Askerooth et al., 2024; Pickart, 2021; Zarnetske et al., 2010). Further confounding the issue, European beachgrass was also introduced to the Pacific coastal region in the early 1900s for the same purpose (Askerooth et al., 2024; McLaughlin & Brown, 1942). A suspected hybrid species (*A. arenaria* × *A. breviligulata*) was discovered in 2012 in an area where the two beachgrass species cohabitate. Genetic analysis confirmed hybridization of the two introduced beachgrass parent species (Mostow et al., 2021). Raising additional concern, common garden experiments indicated the hybrid species grew more vigorously and was able to outcompete its parent species (Mostow et al., 2024). American beachgrass is classified as a "Class C Weed" by the Washington State Noxious Weed Control Board (WSNWCB, 2025).

Some American beachgrass cultivars may present an invasive threat in the Great Lakes region where they have been introduced for dune stabilization purposes and may outcompete native populations of Champlain beachgrass (Gibbons, 2025; NatureServe, 2025).

Control

Please contact your local agricultural extension specialist or county weed specialist to learn what works best in your area and how to use it safely. Always read label and safety instructions for each control method. Trade names and control measures appear in this document only to provide specific information. USDA NRCS does not guarantee or warrant the products and control methods named, and other products may be equally effective.

A variety of control methods have been documented as an effective means for the treatment of American beachgrass in the Pacific coastal region. Mechanical control options include bulldozing, plowing, disking, and hand pulling. Herbicide applications and burning are also viable treatment options. Zarnetske et al. (2010) reports that all treatment options effectively reduce American beachgrass cover but may have unintended negative environmental impacts affecting native species and ecosystem functions. High intensity treatment options (bulldozing, plowing, and disking) are less specific to the target species and have greater impacts on dune structure and function causing more widespread ecosystem impacts. Low intensity treatments (targeted herbicide applications and hand pulling) are as effective and present less collateral damage (Zarnetske et al., 2010).

Seeds and Plant Production

American beachgrass can be propagated vegetatively or by seed. It is most commonly propagated vegetatively in nursery production settings. Trials have indicated that the planting window can be extended later in the spring (April 12) in the Mid-Atlantic region under a nursery production setting while still achieving a high survival rate (97.5%) (NRCS, 1996). Under ideal nursery conditions, each culm may yield approximately 35-40 culms in a single growing season (Thornton & Davis, 1964). Varieties selected for culm production may produce more than 50 culms per season (NRCS, 2026). Dormant plants can be harvested manually with hand tools. Nursery production harvesting is most efficiently accomplished using a power take off driven plant lifter/shaker commonly used for bareroot woody seedling harvesting. Field harvested material can be divided into individual culms for increase. Effective weed control is essential to producing quality plants. Manual removal, mechanical cultivation, prescribed burns, and chemical applications may all be utilized effectively for weed control. Consult with your local agricultural extension service to develop an integrated pest management plan for the production of American beachgrass. If a threshold is surpassed and chemical control is deemed necessary, always read and follow all labeling associated with products used.

American beachgrass plugs can be propagated from seed. Trials conducted at the Norman A. Berg National Plant Materials Center demonstrated that germination could be achieved using seed cleaned to pure caryopses or seed cleaned to individual florets (with lemma and palea intact) (Thornton & Davis, 1964). For either seed condition, dormancy is reduced and germination is improved with 15-60 days of cold (5 °C) wet stratification (Pihl et al., 1978; Thornton & Davis, 1964). Trials indicate that a longer stratification period (30-60 days) benefits the germination rates of seed in floret form, while germination for pure caryopses is increased with 30 days of stratification (Thornton & Davis, 1964). While the work of Thornton and Davis (1964) demonstrated that cold wet stratified seed held at 20-21 °C could exceed 60% germination, the work of Seneca (1969) provided additional support for the germination benefits of stratification and indicated that germination success was heavily influenced by alternating diurnal thermoperiods. Cold stratified seed held in alternating diurnal thermoperiods (18.3-29.4 °C and 18.3-35 °C; 7 hours at high temperature and 17 hours at low temperature) exceeded 90% germination, a statistically significant greater germination rate than any constant temperatures tested (Seneca, 1969). The majority of viable seed will germinate within 2 weeks of seeding (Thornton & Davis, 1964). There are approximately 207,000 seeds/lb (Krajnyk & Maun, 1982; Thornton & Davis, 1964).

Cultivars, Improved, and Selected Materials (and area of origin)
These plant materials are readily available from commercial sources.

'Cape' (Massachusetts) was released by the USDA NRCS Cape May Plant Materials Center, Cape May Court House, New Jersey in 1972. Cape was developed from a single plant collected at Sandy Neck Beach in Cape Cod, MA. It was selected for vigor, culm production, culm size, and leaf width making it extremely well suited to trap sand and prevent beach dune erosion on Northeast and Mid-Atlantic coasts from Massachusetts south to North Carolina (Alderson & Sharp, 1994;.NRCS, 2026).

'Hatteras' (North Carolina) was released by the North Carolina Agricultural Experiment Station, Raleigh, NC in 1969. Hatteras was selected for early vigor and a rapid rate of spread for the purpose of dune stabilization and revegetation on the coast of North Carolina (Alderson & Sharp, 1994).

Bogue Germplasm (North Carolina) American beachgrass is a source identified germplasm that was originally collected from the Bogue Banks barrier island of Emerald Isle Woods Park, NC. It was collected and increased for distribution by a private nursery for dune stabilization applications in the North Carolina coastal region (Drake, 2022; Wootton et al., 2016).

Vans Germplasm (Michigan) American beachgrass is a source identified germplasm that was originally collected from the Lake Michigan shoreline. It was collected and increased for distribution by the local private nursery industry for dune stabilization applications in the Great Lakes region (Fant et al., 2008; Gibbons, 2025; Van Pines Nursery, 2026).

Cultivars should be selected based on the local climate, resistance to local pests, and intended use. Consult with your local land grant university, local extension or local USDA NRCS office for recommendations on adapted cultivars for use in your area**.**

Literature Cited

Alderson, J., & Sharp, W. C. (1994). *Grass varieties in the United States* (Agriculture Handbook No. 170). U.S. Department of Agriculture, Soil Conservation Service.

Askerooth, R., Mostow, R. S., Ruggiero, P., Barreto, F., & Hacker, S. D. (2024). A novel hybrid beachgrass is invading U.S. Pacific Northwest dunes with potential ecosystem consequences. *Ecosphere*, *15*(4), Article e4830. https://doi.org/10.1002/ecs2.4830

Augustine, M., & Sharp, W. C. (1969). Effect of several fertilizer treatments on the production of American beachgrass culms. *Agronomy Journal*, *61*(1), 43–45. https://doi.org/10.2134/agronj1969.00021962006100010014x

Bowers, R. (2000). *Beach Grass: Bringing the Seashore to the Mountains*. Stormwater Solutions. https://www.stormwater.com/erosion-control/vegetation-management/article/13000575/beach-grass-bringing-the-seashore-to-the-mountains

Brown, L. (1979). *Grasses: An identification guide*. Houghton Mifflin Company.

Burkman, P. (2008). *The fire effects of fire on beach grass (Ammophila breviligulata) at Apostle Island National Lakeshore*. U.S. Department of the Interior, National Park Service. https://digitalcommons.unl.edu/cgi/viewcontent.cgi?params=/context/natlpark/article/1015/&path_info=Burkman_RPACW_2008_Effects_fire_beach.pdf

Charbonneau, B. R., & Balsamo, R. A. (2015). Greenhouse growth of native American beachgrass (*Ammophila breviligulata*) and invasive Asiatic sand sedge (*Carex kobomugi*) under competition. *Research Journal of Botany*, *10*(2), 61–72. https://scialert.net/abstract/?doi=rjb.2015.61.72

Committee on the Status of Endangered Wildlife in Canada. (2024). *Savannah Sparrow princeps subspecies (Passerculus sandwichensis princeps): COSEWIC rapid review of classification 2023*. Canadian Wildlife Service. https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/cosewic-assessments-status-reports/savannah-sparrow-2023.html

Connecticut Department of Energy and Environmental Protection. (2026). *Endangered, threatened, and special concern birds*. https://portal.ct.gov/deep/endangered-species/endangered-species-listings/endangered-threatened--special-concern-birds

Craik, S. R., & Titman, R. D. (2009). Nesting ecology of red-breasted mergansers in a common tern colony in eastern New Brunswick. *Waterbirds*, *32*(2), 282–292. https://cdnsciencepub.com/doi/pdf/10.1139/z88-363

Dorsey, S. S., Catlin, D. H., Ritter, S. J., Wails, C. N., Robinson, S. G., Oliver, K. W., Bellman, H. A., Karpanty, S. M., & Fraser, J. D. (2025). The importance of viewshed in nest site selection of a ground-nesting shorebird. PLOS ONE, *20*(2), Article e0319021. https://doi.org/10.1371/journal.pone.0319021

Drake, P. (2022). *Plants we offer*. Drake Nurseries. https://www.drakenurseries.com/plants-we-offer

Duncan, W. H., & Duncan, M. B. (1987). *The Smithsonian guide to seaside plants of the Gulf and Atlantic coasts*. Smithsonian Institution Press.

Dwight, T. (1823). *Travels in New-England and New-York* (Vol. 3). William Baynes and Son.

Emery, S. M., Thompson, S., & Rudgers, J. A. (2010). Variation in endophyte symbiosis, herbivory and drought tolerance of *Ammophila breviligulata* populations in the Great Lakes region. *The American Midland Naturalist*, *163*(1), 186–196. https://doi.org/10.1674/0003-0031-163.1.186

Fant, J. B., Holmstrom, R. M., Sirkin, E., Etterson, J. R., & Masi, S. (2008). Genetic structure of threatened native populations and propagules used for restoration in a clonal species, American beachgrass (*Ammophila breviligulata* Fern.). *Restoration Ecology*, *16*(4), 594–603.

Federal Geographic Data Committee, Vegetation Subcommittee. (2025). *United States National Vegetation Classification Database Version 3.0*. USNVC Hierarchy Explorer, Science Analytics and Synthesis Program, U.S. Geological Survey. https://usnvc.org/explore-classification/

Fernald, M. L. (1950). *Gray's manual of botany* (8th ed.). American Book Company.

Flemming, S. P., Chiasson, R. D., & Austin-Smith, P. J. (1992). Piping plover nest site selection in New Brunswick and Nova Scotia. *The Journal of Wildlife Management*, *56*(3), 578–583. https://doi.org/10.2307/3808875

Gagné, R. J. (1975). A new species of *Mayetiola* (Diptera: Cecidomyiidae) on American beachgrass in New Jersey. *Entomological News*, *86*, 85–87. https://zenodo.org/records/15913370

Gibbons, C. (2025). *Genetic, morphological, phenological, and mycorrhizal aspects that define American beachgrass in northeastern freshwater ecosystems* [Master's thesis, State University of New York College of Environmental Science and Forestry]. SUNY Digital Repository. https://experts.esf.edu/esploro/outputs/graduate/Genetic-Morphological-Phenological-and-Mycorrhizal-Aspects/99988626204826

Gleason, H. A., & Cronquist, A. (1963). *Manual of vascular plants of northeastern United States and adjacent Canada*. Van Nostrand Reinhold Company.

Glennon, R. & DePue, S. (2010). *Succession on a coal mine gob pile stabilized with 'Cape' American beachgrass*. Energy Justice Network. https://www.energyjusticenetwork.org/coal/wastecoal/beachgrass/

Goldberg, M., Tabroff, N. R., & Tamarin, R. H. (1980). Nutrient variation in beach grass in relation to beach vole feeding. *Ecology*, *61*(5), 1029–1033. https://doi.org/10.2307/1936819

Graetz, K. E. (1973). *Seacoast plants of the Carolinas for conservation and beautification* (Sea Grant Publication No. UNC-SG-73-06). University of North Carolina Sea Grant Program.

Halisky, P. M., Ahmad, M., & Glover, L. B. (1977). Observations on the root gall nematode parasitizing American beachgrass in New Jersey. *Plant Disease Reporter*, *61*(1), 48–49. https://babel.hathitrust.org/cgi/pt?id=mdp.39015001262669&seq=58

Hamer, D., Belcher, C., & Miller, C. (1992). *Restoration of sand dunes along the Mid-Atlantic coast*. U.S. Department of Agriculture, Soil Conservation Service, Cape May Plant Materials Center.

Heyel, S. M., & Day, F. P. (2006). Long-term residual effects of nitrogen addition on a barrier dune ecosystem. *The Journal of the Torrey Botanical Society*, *133*(2), 297–303. https://doi.org/10.3159/1095-5674(2006)133[297:LREONA]2.0.CO;2

Hitchcock, A. S. (1951). *Manual of the grasses of the United States* (2nd ed., USDA Miscellaneous Publication No. 200). U.S. Government Printing Office.

Holt, D. W. (1992). Notes on short-eared owl, *Asio flammeus*, nest sites, reproduction and territory sizes in coastal Massachusetts. *The Canadian Field-Naturalist*, *106*(3), 352–356. https://doi.org/10.5962/p.356984

Hosier, P. E. (2018). *Seacoast plants of the Carolinas*. University of North Carolina Press.

Jenkins, D. (2003). Least tern. In B. E. Beans & L. Niles (Eds.), *Endangered and threatened wildlife of New Jersey* (pp. 120–124). Rutgers University Press.

Krajnyk, I., & Maun, M. A. (1981). Incidence of ergot in populations of *Ammophila breviligulata*. *Canadian Plant Disease Survey*, *61*(1), 19–21.

Krajnyk, I., & Maun, M. A. (1982). Reproductive biology of *Ammophila breviligulata*. *The American Midland Naturalist*, *108*(2), 346–354. https://doi.org/10.2307/2425495

Liguori, S. (2003). Roseate tern. In B. E. Beans & L. Niles (Eds.), *Endangered and threatened wildlife of New Jersey* (pp. 116–120). Rutgers University Press.

Liguori, S., & Jenkins, D. (2003). Piping plover. In B. E. Beans & L. Niles (Eds.), *Endangered and threatened wildlife of New Jersey* (pp. 97–102). Rutgers University Press.

Liu, M., Overy, D. P., Cayouette, J., Shoukouhi, P., Hicks, C., Bisson, K., Sproule, A., Wyka, S. A., Broders, K., Popovic, Z., & Menzies, J. G. (2020). Four phylogenetic species of ergot from Canada and their characteristics in morphology, alkaloid production, and pathogenicity. *Mycologia*, *112*(5), 974–988. https://doi.org/10.1080/00275514.2020.1797372

Lorenz, D. G., Sharp, W. C., & Ruffner, J. D. (1989). *Conservation plants for the Northeast*. U.S. Department of Agriculture, Soil Conservation Service.

Lucas, L. T., Warren, T. B., Woodhouse, W. W., & Seneca, E. D. (1971). Marasmius blight, a new disease of American beachgrass. *Plant Disease Reporter*, *55*(7), 582–585. https://babel.hathitrust.org/cgi/pt?id=mdp.39015001262735&view=1up&seq=30

Majka, C. G., & Shaffer, F. (2008). Beetles (Coleoptera) in the diet of piping plovers in the Iles de la Madeleine, Québec, Canada. *Wader Study Group Bulletin*, *115*(2), 77–83. https://www.waderstudygroup.org/article/2687/
Mason Lake Conservation District. (2026). *American beachgrass*. https://www.mason-lakeconservation.org/beachgrass
Massachusetts Division of Fisheries and Wildlife. (2024). *List of endangered, threatened, and special concern species*. https://www.mass.gov/info-details/list-of-endangered-threatened-and-special-concern-species
Maun, M. A. (1985). Population biology of *Ammophila breviligulata* and *Calamovilfa longifolia* on Lake Huron sand dunes. I. Habitat, growth form, reproduction, and establishment. *Canadian Journal of Botany*, *63*(1), 113–124. https://doi.org/10.1139/b85-014
Maun, M. A. (1994). Adaptations enhancing survival and establishment of seedlings on coastal dune systems. *Vegetatio*, *111*(1), 59–70. https://doi.org/10.1007/BF00045577
Maun, M. A. (2009). *The biology of coastal sand dunes*. Oxford University Press.
Maun, M. A., & Lapierre, J. (1984). The effects of burial by sand on *Ammophila breviligulata*. *Journal of Ecology*, *72*(3), 827–839. https://doi.org/10.2307/2259534
McLaughlin, W. T., & Brown, R. L. (1942). *Controlling sand dunes in the Pacific Northwest* (Circular No. 660). U.S. Department of Agriculture, Soil Conservation Service.
McLoughlin, P. D., Lysak, D., Debeffe, L., Perry, T., & Hobson, K. A. (2016). Density-dependent resource selection by a terrestrial herbivore in response to sea-to-land nutrient transfer by seals. *Ecology*, *97*(8), 1929–1937. https://doi.org/10.1002/ecy.1451
Mostow, R. S., Barreto, F., Biel, R., Meyer, E., & Hacker, S. D. (2021). Discovery of a dune-building hybrid beachgrass (*Ammophila arenaria* × *A. breviligulata*) in the U.S. Pacific Northwest. *Ecosphere*, *12*(4), https://doi.org/10.1002/ecs2.3501
Mostow, R. S., Barreto, F. S., & Hacker, S. D. (2024). A hybrid beachgrass (*Ammophila arenaria* × *A. breviligulata*) is more productive and outcompetes its non-native parent species. *Oecologia*, *205*(1), 81–94. https://doi.org/10.1007/s00442-024-05548-5
NatureServe. (2025). *NatureServe network biodiversity location data accessed through NatureServe Explorer*. https://explorer.natureserve.org/
New Jersey Fish and Wildlife. (2026). *New Jersey's endangered, threatened, and special concern species*. New Jersey Department of Environmental Protection. https://dep.nj.gov/njfw/wildlife/endangered-threatened-and-special-concern-species/
Odum, W. E., Smith, T. J., & Dolan, R. (1987). Suppression of natural disturbance: Long-term ecological change on the Outer Banks of North Carolina. In M. G. Turner (Ed.), *Landscape heterogeneity and disturbance* (pp. 123–135). Springer-Verlag.
Perry, B. (1985). *A Sierra Club naturalist's guide to the Middle Atlantic coast*. Sierra Club Books.
Petry, L. C., & Norman, M. G. (1968). *A beachcomber's botany*. Chatham Conservation Foundation.
Pickart, A. J. (2021). *Ammophila* invasion ecology and dune restoration on the west coast of North America. *Diversity*, *13*(12), Article 629. https://doi.org/10.3390/d13120629
Pihl, K. B., Grant, D. M., & Somers, G. F. (1978). *A Delaware Sea Grant technical report: Germination of seeds of selected coastal plants* (Report No. DEL-SG-11-78). University of Delaware, Sea Grant College Program.
Plants of the World Online. (2025). *Zizania aquatica*. Royal Botanic Gardens, Kew. https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:77165977-1
Powell, A. N., & Cuthbert, F. J. (1992). Habitat and reproductive success of piping plovers nesting on Great Lakes islands. *The Wilson Bulletin*, *104*(1), 155–161. https://digitalcommons.usf.edu/wilson_bulletin/vol104/iss1/15
Radford, A. E., Ahles, H. E., & Bell, C. R. (1968). *Manual of the vascular flora of the Carolinas*. The University of North Carolina Press.
Robinson, S. G., Bellman, H. A., Walker, K. J., Catlin, D. H., Karpanty, S. M., Ritter, S. J., & Fraser, J. D. (2021). Adult piping plover habitat selection varies by behavior. *Ecosphere*, *12*(2), Article e03384. https://doi.org/10.1002/ecs2.3870
Saarela, J. M., Bull, R. D., Paradis, M. J., Ebata, S. N., Peterson, P. M., Soreng, R. J., & Paszko, B. (2017). Molecular phylogenetics of cool-season grasses in the subtribes Agrostidinae, Anthoxanthinae, Aveninae, Brizinae, Calothecinae, Koeleriinae and Phalaridinae (*Poaceae*, *Pooideae*, *Poeae*, *Poeae* chloroplast group 1). *PhytoKeys*, *87*, 1–139. https://doi.org/10.3897/phytokeys.87.12774
Salon, P. R., & Miller, C. F. (2012). *A guide to conservation plantings on critical areas for the northeast*. U.S. Department of Agriculture, Natural Resources Conservation Service, Big Flats Plant Materials Center. https://www.nrcs.usda.gov/plantmaterials/nypmspu11417.pdf
Seliskar, D. M. (1995). Coastal dune restoration: A strategy for alleviating dieout of *Ammophila breviligulata*. *Restoration Ecology*, *3*(1), 54–60. https://doi.org/10.1111/j.1526-100X.1995.tb00075.x
Seliskar, D. M. (2003). The response of *Ammophila breviligulata* and *Spartina patens* (Poaceae) to grazing by feral horses on a dynamic Mid-Atlantic barrier island. *American Journal of Botany*, *90*(7), 1038–1044. https://doi.org/10.3732/ajb.90.7.1038

Seliskar, D. M., & Huettel, R. N. (1993). Nematode involvement in the dieout of *Ammophila breviligulata* (Poaceae) on the Mid-Atlantic coastal dunes of the United States. *Journal of Coastal Research*, *9*(1), 97–103. https://www.jstor.org/stable/4298071

Seneca, E. D. (1969). Germination response to temperature and salinity of four dune grasses from the Outer Banks of North Carolina. *Ecology*, *50*(1), 45–53. https://doi.org/10.2307/1934661

Seneca, E. D. (1972). Seedling response to salinity in four dune grasses from the Outer Banks of North Carolina. *Ecology*, *53*(3), 465–471. https://doi.org/10.2307/1934234

Sheahan, C. (2014). *Interplanting of native legume amberique-bean (Strophostyles helvola) with beachgrass (Ammophila breviligulata) in hoop house study to increase diversity and improve resilience in coastal dune plantings along the Mid-Atlantic coast*. U.S. Department of Agriculture, Natural Resources Conservation Service, Cape May Plant Materials Center.

Shi, J., Qian, W., Jin, Z., Zhou, Z., Wang, X., & Yang, X. (2023). Evaluation of soil heavy metals pollution and the phytoremediation potential of copper-nickel mine tailings ponds. *PLOS ONE*, *18*(3), Article e0283084. https://doi.org/10.1371/journal.pone.0277159

Shumway, S. W. & Banks, C. R. (2001). Distributions in interdunal swale communities: The effects of soil waterlogging. *The American Midland Naturalist*, *145*(1), 137–146. https://www.jstor.org/stable/3083088

Silberhorn, G. M. (1999). *Common plants of the Mid-Atlantic coast*. The Johns Hopkins University Press.

Skaradek, W., Miller, C., & Hocker, P. (2003). *Beachgrass planting guide for municipalities and volunteers*. USDA Natural Resources Conservation Service, Cape May Plant Materials Center.

Slaymaker, D. H., Peek, M. S., Wresilo, J., Zeltner, D. C., & Saleh, Y. F. (2015). Genetic structure of native and restored populations of American beachgrass (*Ammophila breviligulata* Fern.) along the New Jersey coast. *Journal of Coastal Research*, *31*(6), 1334–1343. https://doi.org/10.2112/JCOASTRES-D-13-00157.1

Snell, S. C. (2026a). *Conservation Plant Establishment to Support Field Elevation Increase Through Beneficial Use of Dredge Material Sediment Application*. U.S. Department of Agriculture, Natural Resources Conservation Service, Cape May Plant Materials Center.

Snell, S. C. (2026b). *Evaluation of reproductive performance attributes of two American beachgrass (Ammophila breviligulata) strains*. U.S. Department of Agriculture, Natural Resources Conservation Service, Cape May Plant Materials Center.

Stalter, R. (1992). *Barrier island botany*. Wm. C. Brown Publishers.

Stalter, R., Lonard, R. I., & Judd, F. W. (2024). Biological flora of sand dunes on the Atlantic coastline of North America: *Ammophila breviligulata* Fernald. *Journal of Coastal Research*, *40*(3), 577–587. https://doi.org/10.2112/JCOASTRES-D-23A-00012

Stalter, R., & Lonard, R. I. (2024). Biological flora of sand dunes in the Northwest Pacific coastline of North America: *Ammophila arenaria* (L.) Link and *Ammophila breviligulata* Fernald. *Journal of Coastal Research*, *40*(5), 994–1000. https://doi.org/10.2112/JCOASTRES-D-24A-00003.1

Tanacredi, J. T., & Badger, C. J. (1995). *Gateway: A visitor's companion*. Stackpole Books.

Thornton, R. B., & Davis, A. G. (1964). *Development and use of American beachgrass for dune stabilization*. U.S. Department of Agriculture, Soil Conservation Service, National Plant Materials Center.

U.S. Army Corps of Engineers. (2022). *National Wetland Plant List v3.6*. https://nwpl.sec.usace.army.mil/

U.S. Department of Agriculture, Natural Resources Conservation Service. (1996). *Annual report*. Cape May Plant Materials Center. https://archive.org/details/njpmcatr_1996

U.S. Department of Agriculture, Natural Resources Conservation Service. (2026). *Release brochure for Cape American beachgrass (Ammophila breviligulata)*. Cape May Plant Materials Center.

U.S. Fish and Wildlife Service. (2025). *Environmental Conservation Online System.* https://ecos.fws.gov/ecp/

Ustin, S. L., & Jacquemoud, S. (2020). How the optical properties of leaves modify the absorption and scattering of energy and enhance leaf functionality. In J. Cavender-Bares, J. A. Gamon, & P. A. Townsend (Eds.), *Remote sensing of plant biodiversity* (pp. 349–384). Springer Nature. https://link.springer.com/chapter/10.1007/978-3-030-33157-3_14

Van Pines Nursery. (2026). *Programs: Beach grass system*. https://vanspinesnursery.com/programs/beach-grass/

Warren, T. B., & Lucas, L. T. (1972). Histopathology of marasmius blight of American beachgrass. *Phytopathology*, *63*, 725–728. https://www.apsnet.org/publications/phytopathology/backissues/Documents/1973Articles/Phyto63n06_725.PDF

Whitaker, J. O., Gibble, J., & Kjellmark, E. (1994). *Mammals of Indiana Dunes National Lakeshore*. U.S. Department of the Interior, National Park Service.

Woodhouse, W. W., Seneca, E. D., & Broome, S. W. (1976). *Ten years of development of man-initiated coastal barrier dunes in North Carolina*. North Carolina University Agricultural Experiment Station.

Woodhouse, W. W., Seneca, E. D., & Broome, S. W. (1977). Effect of species on dune grass growth. *International Journal of Biometeorology*, *21*(3), 256–266. https://link.springer.com/article/10.1007/BF01552879

Wootton, L., Miller, J., Miller, C., Peek, M., Williams, A., & Rowe, P. (2016). *Dune manual*. New Jersey Sea Grant Consortium.

Washington State Noxious Weed Control Board. (2025). *Washington State noxious weed list*. Washington State Department of Agriculture. https://www.nwcb.wa.gov/pdfs/2025-State-Weed-List_Scientific_Name-8.5x11.pdf
Zarnetske, P. L., Seabloom, E. W., & Hacker, S. D. (2010). Non-target effects of invasive species management: Beachgrass, birds, and bulldozers in coastal dunes. *Ecosphere*, *1*(5):art13. https://doi.org/10.1890/ES10-00101.1

Citation

Snell, S.C. 2026. Plant Guide for American beachgrass (*Ammophila breviligulata)*. USDA-Natural Resources Conservation Service, Cape May Plant Materials Center, Cape May, NJ.

Published December 2000

Edited: 05Dec00 jsp;07Feb03ahv; 30May06jsp; 09Jun2026 scott snell

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