



A Landscape Fit for the Sea

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*“Awake, O north wind, and come, O south wind!
Blow upon my garden that its fragrance may be wafted abroad.”*

—ANONYMOUS

Not everyone willingly calls upon the wind to blow upon their garden. In fact, those that live along the coast generally eschew the thought of awakening the elements that threaten the survival of their natural landscape. The fact is that landforms and landscapes on the coast take a beating. Waves are constantly working to erode and move sands and soils along the shoreline. Winds assault the coastlines, parch the soils, carry damaging salt sprays, and blow sand in all directions. Plants get battered, bent, and torn. Bare and exposed soils are eroded and carried away by the wind, rain, and seas. Under these highly dynamic, migratory, and unforgiving conditions, it is no wonder that even the most seasoned coastal gardeners are overwhelmed and discouraged.

But perhaps these challenges can be overcome by looking to the strategies of the naturally vegetated seascape—after all, these landscapes have weathered many storms over the centuries and have emerged

relatively unscathed. These rugged coastal environments are home to plants such as beachgrass, bayberry, and beach plum that are resilient enough to withstand the battering and bending, not to mention salt, sand, droughts, and nutrient-deficient soils. They have been naturally selected to live in these environments because they have the characteristics that make them most fit to survive the elements.

Accordingly, you as a coastal landscaper should follow suit. By selecting plants that fit the particular coastal niche, and by mimicking nature, you will be able to attain a flourishing coastal landscape at minimal expense of time, money, and labor. And the extra incentives are worth the effort: natural protection from erosion and storm damage, a filter for pollution, habitat for wildlife, enhanced visual appeal of the coastal property, and perhaps even the wafting of a sweet fragrance abroad.

Photo: Stephen Gersh

The Extra Incentives

Plants are one of the best natural remedies for erosion control. Plants are able to take up, absorb, and physically slow down surface and groundwater, decreasing flows that can lead to erosion. A thickly planted area can prevent runoff from creating gullies or ruts in the bank, or prevent groundwater seepages that may cause the collapse of the bank. In addition, trees, shrubs, groundcovers, and grasses—particularly native species—can help to stabilize banks, dunes, and other coastal areas with their root systems by structurally reinforcing and binding soils. In contrast, mowed lawn grasses have shallow root systems that do not offer the same stability.

Because of their erosion-control capabilities, plants are an excellent alternative to engineered structures, such as seawalls, riprap, and bulkheads (which are often prohibited in Massachusetts because they stop the movement of sand in the overall system and reflect waves, both of which can damage adjacent beaches and other properties). A protective plant cover can stabilize property that is experiencing serious erosion problems while buffering wave energy and maintaining natural sand transport. But, you need to use live plants—brush, vegetative debris, and other materials placed on the bank or dune act to limit the natural growth and establishment of plants and do not help bind soils.

Landscaping the shoreline also helps keep the bays and harbors clean. Plants help catch and filter sediments and other pollutants that would ultimately run to the sea. Excess sediments can smother coastal habitats like eelgrass beds, and can reduce water quality. Pollutants such as fertilizers and pesticides, oils and greases, and pet waste can pollute shellfish beds and swimming areas. Plants offer a natural defense—capturing, filtering, and transforming many of these pollutants before they reach coastal waters. In addition, since native plants are better adapted to local conditions, there is less need for pesticides and fertilizers that contribute to water quality problems.

Hardy plants that are good for bank and dune stability are also good for wildlife. Bayberries and beach plums provide a valuable source of food for local and migratory songbirds, and their thicket-forming character provides shelter. Dense patches of rugosa rose, chokeberry, low-bush blueberry, bearberry, red cedar, and black cherry provide nesting areas for various bird species, as

well as foraging areas for many species of mammals. Seaside goldenrod has been known to attract fall monarch butterflies. These trees, shrubs, and perennials also preserve the appearance of the natural shoreline, while beautifying and enhancing the sweet aromas of your yard!

Picking Plants to Mimic Nature

To find the right plants for your landscape niche, you need to consider exposure of your yard to the elements. If you live adjacent to a coastal dune, you may find that your yard is frequently overtopped with sand and salt water. American beachgrass works best here because it is tolerant of salt spray, exposure to wind and waves, and accumulations of sand, and it has a thick, fibrous root systems that help build up and stabilize windblown sediments. The roots of plants such as dusty miller, beach pea, and seaside goldenrod are also effective in stabilizing and building up dune sands. In a major storm, these dunes will act as a buffer against waves and flooding.

Hardy, drought-tolerant plants, such as bayberry, rugosa rose, beachplum, and Japanese black pine, are good choices for yards that are a bit more setback from wave action, but still experience high winds and frequent salt sprays—such as in a back dune area (dunes that are behind the dune closest to the beach) or atop a coastal bank. On the slope of a coastal bank, plants or groups of plants with substantial surface area, such as little bluestem, bearberry, and creeping junipers, are appropriate. These plants are low-growing and have good root structures that not only hold them to the steep slopes, but also stabilize the soils. In fact, rows of thick, drought-tolerant grasses planted perpendicular to the slope will not only prevent erosion, but will slow water runoff and allow sediment to be deposited—creating a build-up of the bank.

So, for those coastal landowners who are experiencing landscaping woes, consider employing nature's strategies that have successfully endured the years. Although the coastal forces are certainly those to be reckoned with, locally established plant communities can put up a rather good fight. So next time you call upon the wind, you might want to give him proper warning—after all, with your posse of hardy coastal native plants, he may have finally met his match.