

Sandplain Grassland

State Rank: S1 – Critically Imperiled



Sandplain Grassland dominated by little bluestem grass, managed by burning. Photo: Patricia Swain, NHESP.

Description: Sandplain Grasslands are essentially treeless coastal communities dominated by native grasses and herbaceous species with sparse shrubs on sand or other dry, low nutrient soils. Occurrences receive onshore winds and salt spray of storms that delay succession to shrubland, woodland, and forest. Prior to European settlement they likely occurred as openings close to the coast where salt spray suppressed the growth of woody plants, and in openings created by windstorms, fires, and localized agricultural activities. The community also occurs in openings within Pitch Pine - Scrub Oak Communities, often in depressions (frost pockets) where frost can occur throughout the growing season inhibiting woody growth. Most current occurrences are on land that was previously farmed or disturbed and require management to remain open.

Sandplain Grasslands are open, essentially treeless, grass dominated communities that generally occur on sand or other dry, poor soils. Occurrences are maintained by fire, salt spray, and, now, mowing.

Characteristic Species: Sandplain Grasslands are dominated by graminoids, usually little bluestem grass, Pennsylvania sedge, and poverty grass, with bearberry, scrub oak, stiff aster, bayberry, lowbush blueberry, and black huckleberry with a variety of goldenrods. The shrubs often form clonal patches that provide <~25% cover overall. Although there is great species overlap with Sandplain Heathlands, Sandplain Grasslands are much richer in herbaceous vascular species, both native and non-native. Goat's rue, yellow wild indigo, butterfly weed, colic-root, and bird's foot violet are good indicators of the grassland community although they occur inland and in other dry habitats as well. Uncommon plants include sandplain gerardia, purple needle grass, commons' and harsh panic grass, sandplain and stiff yellow flax, and Bayard's adder's mouth.



Butterfly weed with yellow wild indigo and an aster. Photo: Patricia Swain, NHESP.

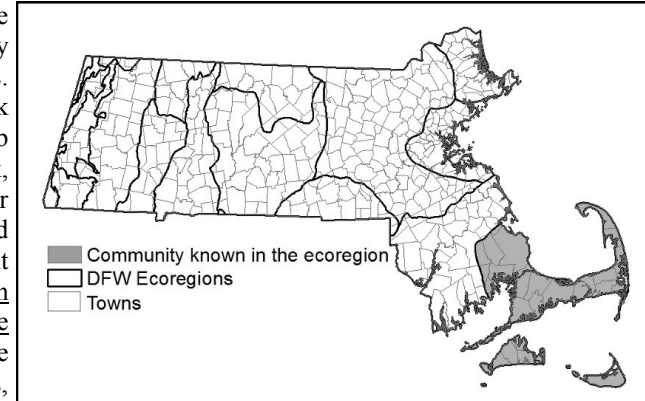
Differentiating from Related Communities: Sandplain Grasslands are part of a structural and successional continuum with other coastal communities. When communities are not distinct the best fit should be named. Sandplain Heathlands and Sandplain Grasslands share ~70% of their dominant

species: the proportions of the species and the community structure separate the types. Sandplain Heathlands look shrubbier with a taller shrub layer comprised of scrub oak, black huckleberry, and/or lowbush blueberry, and overall have fewer plant species. Both Sandplain Grasslands and Maritime Dune Communities have grasses, forbs, and low shrubs, with patches of bare soil. Dune communities are often dominated by beach grass and beach heather that occur less abundantly in grasslands, where if they occur they are with other plants. Sandplain Grasslands - Inland Variant are located inland away from maritime influences and fewer coastal species including sandplain flax, golden heather, and sandplain blue-eyed grass.



Common's panic grass with little bluestem. Photo: Bruce A. Sorrie, NHESP.

Habitat for Associated Fauna: Animals of Sandplain Grasslands are adapted to open areas. Seven species of birds of conservation interest in Massachusetts are highly dependent on grassland habitat for nesting, overwintering, or resting during



migration, including Grasshopper Sparrow which is particularly adapted to areas with open ground between grass tussocks. Grasslands provide hunting territory for hawks and Short-eared Owls. There are multiple species of beetles, moths and butterflies with habitat primarily restricted to sandplain grasslands, eleven of which are of conservation concern.

Examples with Public Access: Katama Plains, Edgartown; Chilmark Cemetery, Chilmark; Head of the Plains and Middle Moors (NCF), Nantucket; Francis Crane WMA, Sandwich.



Sandplain Grassland mixed species. Photo: Bruce A. Sorrie, NHESP.

