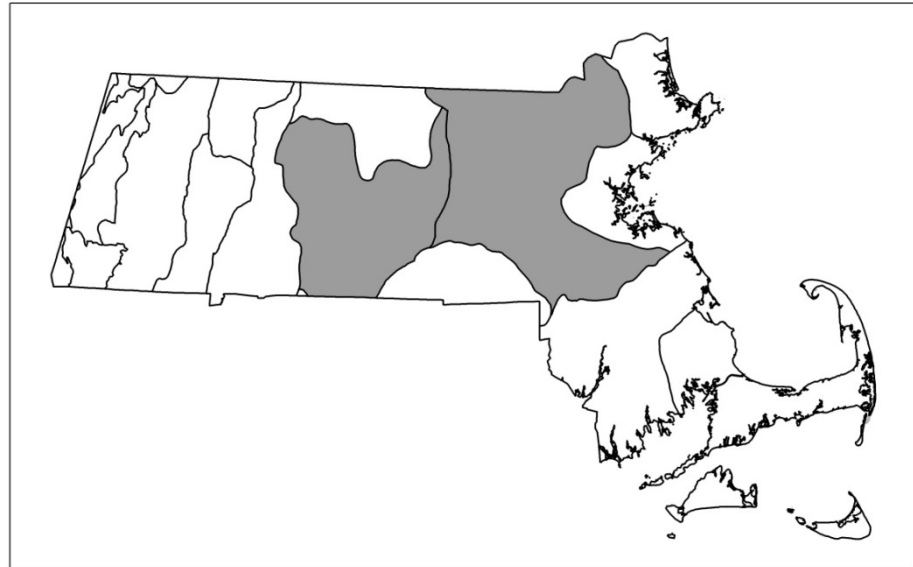




Sandplain Heathland – Inland Variant

Community Code: CT2B2B3000

State Rank: S2



Concept: Often semi-natural, usually successional, low shrub community on sandplains or gravel in interior parts of the state, which needs management to remain open in the absence of fire. Includes erosional gravel/sandy cliff face next to rivers or river floodplains. The tree canopy is absent or poorly developed.

Environmental Setting: Sandplain Heathlands - Inland Variant occur away from the coast, often on kames, glacial lake beaches, and other sand or gravel sediment deposits, including dry riverside bluffs (20- to 50-foot-high erosional gravel cliffs next to rivers). The rugged environment has intense sunlight, extreme daily and seasonal temperature variations, and nutrient-poor droughty soils. Like coastal Sandplain Heathlands, the Inland Variants are open, nearly treeless shrublands often dominated by low-growing members of the heath or blueberry family (Ericaceae). Plant cover ranges from nearly continuous to sparse with bare soil or lichen between clumps of plants. Some occurrences are variably sized openings in Pitch Pine – Scrub Oak Communities, often in depressions (frost pockets) on sandplains where unpredictable late season frosts inhibit growth of many species, including most trees. Other pre-European settlement occurrences were likely small patches in successional mosaics on drought-prone soils maintained by disturbances, including fires that enhanced blueberry production and kept the forest open around Native American villages. Current occurrences were likely enlarged or created by past land use (land clearing and farming) on low-nutrient soils. Fire has been important in at least some situations, especially on drier south- and southwest-facing slopes. Without disturbance or management, succession to open woodland, often pine or pine-oak, occurs.



Vegetation Description: Sandplain Heathland - Inland Variant community is composed of low-growing plants, including several species that can reproduce clonally. Overall diversity is fairly low, with heath (blueberry family) shrubs forming an extensive, dense low shrub layer dominated by low sweet blueberry (*Vaccinium angustifolium*), early sweet blueberry (*Vaccinium pallidum*), and/or black huckleberry (*Gaylussacia baccata*), with sweet fern (*Comptonia peregrina*), bearberry (*Arctostaphylos uva-ursi*), scrub oak (*Quercus ilicifolia*), American hazelnut (*Corylus americana*), New Jersey tea (*Ceanothus americanus*) and/or sheep-laurel (*Kalmia angustifolia*). Scattered individuals or patches of taller shrubs may include tree saplings from the surrounding forest, particularly pitch or white pine (*Pinus rigida* or *P. strobus*), gray or white birch (*Betula populifolia* or *B. papyrifera*), trembling aspen (*Populus tremuloides*), or red maple (*Acer rubrum*). Trailing arbutus (*Epigaea repens*) and teaberry (*Gaultheria procumbens*) are usually present, the latter abundant only on untilled soils. Little bluestem grass (*Schizachyrium scoparium*), poverty grass (*Danthonia spicata*), and hairgrass (*Deschampsia flexuosa*) typically occur in the sparse herbaceous layer that may also include goat's rue (*Tephrosia virginiana*), stiff aster (*Ionactis linariifolia*), woodland sunflower (*Helianthus divaricatus*), and wild lupine (*Lupinus perennis*) between shrub patches. Neither pitch pine nor scrub oak is dominant, although often present.

Differentiating Occurrences: Sandplain Heathlands - Inland Variant grade into Sandplain Grasslands - Inland Variant. They are often small patch communities within the prevailing forest matrix. The visual appearance of being dominated by blueberries or other low shrubs is a key difference from grasslands. Sandplain Heathlands - Inland Variant are located inland at distances away from maritime influences. Sandplain Heathlands are near the coast within the salt spray zone of storms. Ridgetop Heathlands occur on bedrock, often as semi-natural expansions of edges of rocky summits or old blueberry farms. Pitch Pine - Scrub Oak Communities are dominated by scrub oak with abundant pitch pine, neither of which is dominant in Sandplain Heathlands. Very small patches of Sandplain Heathland - Inland Variant inside a Pitch Pine - Scrub Oak Community may be considered to be variations in the Pitch Pine - Scrub Oak Community occurrence. Sandplain Heathlands - Inland Variant are and look shrubbier than Sandplain Grasslands - Inland Variant, which are dominated by grasses.

Associated Fauna: Savannah Sparrows (*Passerculus sandwichensis*) use sandplain heathlands, including inland variant occurrences. Meadow voles (*Microtus pennsylvanicus*), short-tailed shrews (*Blarina brevicauda*), and white-footed mice (*Peromyscus leucopus*) are often abundant near or under shrubs. White-footed mice are known to be one host of the deer tick (*Ixodes scapularis*) that carries Lyme and other diseases. Invertebrates of inland variant heathlands include butterflies such as hairstreaks and skippers. Uncommon species include slender clearwing sphinx moth (*Hemaris gracilis*), pink sallow moth (*Psectraglaea carnosae*), and blueberry sallow moth (*Sympistis dentata*).

Public Access: Montague Plains WMA, Montague; Barre Heathland, DCR Ware River Watershed Area, Barre; Clinton Bluff WMA, Clinton.



Threats:

Succession, including from fire suppression. Fragmentation and development. Domestic pets and feral predators are problems for ground-nesting bird species.

Management Needs:

Selective tree removal, fire, and grazing are often required. Fire management plans should be produced and implemented to reintroduce fire. Remove exotics where a problem. Control foot and vehicular traffic.

USNVC/NatureServe: