

Conservation of Native Buffalograss (*Buchloe dactyloides*) in Minnesota

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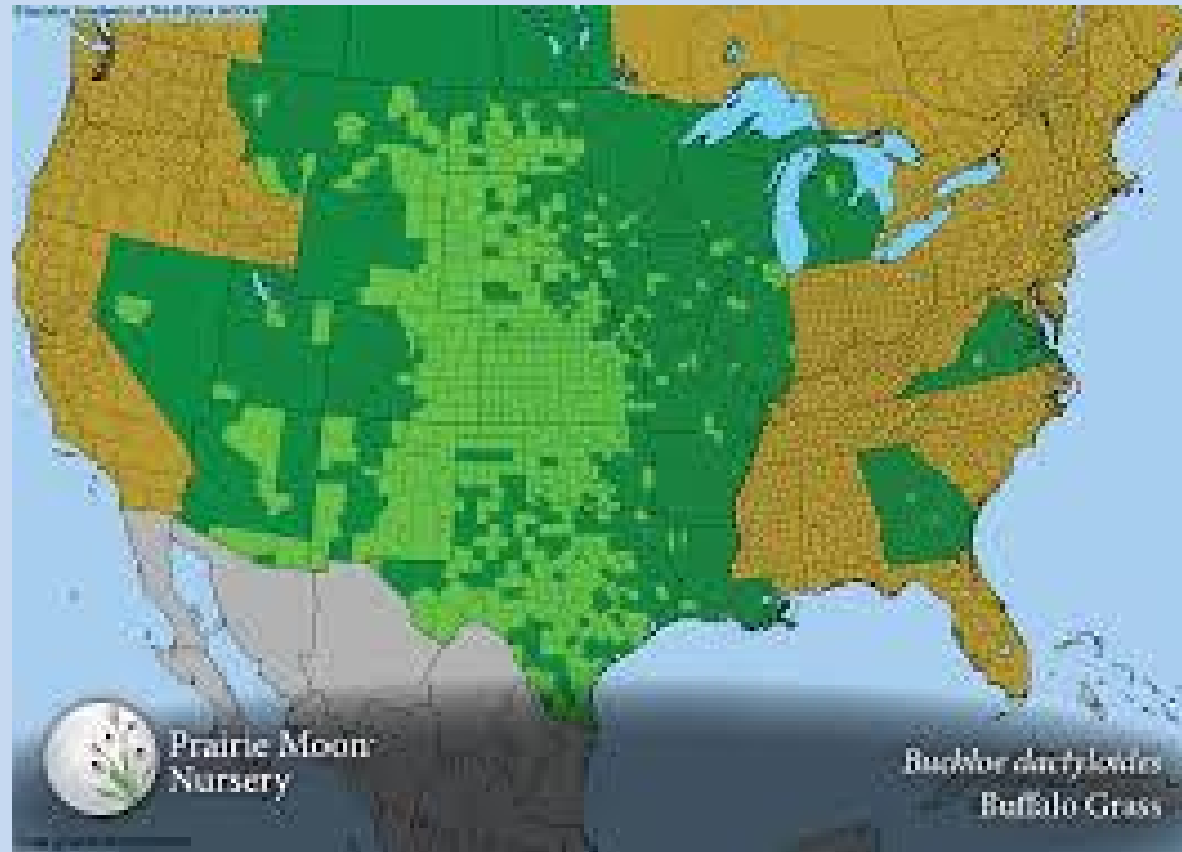


Description

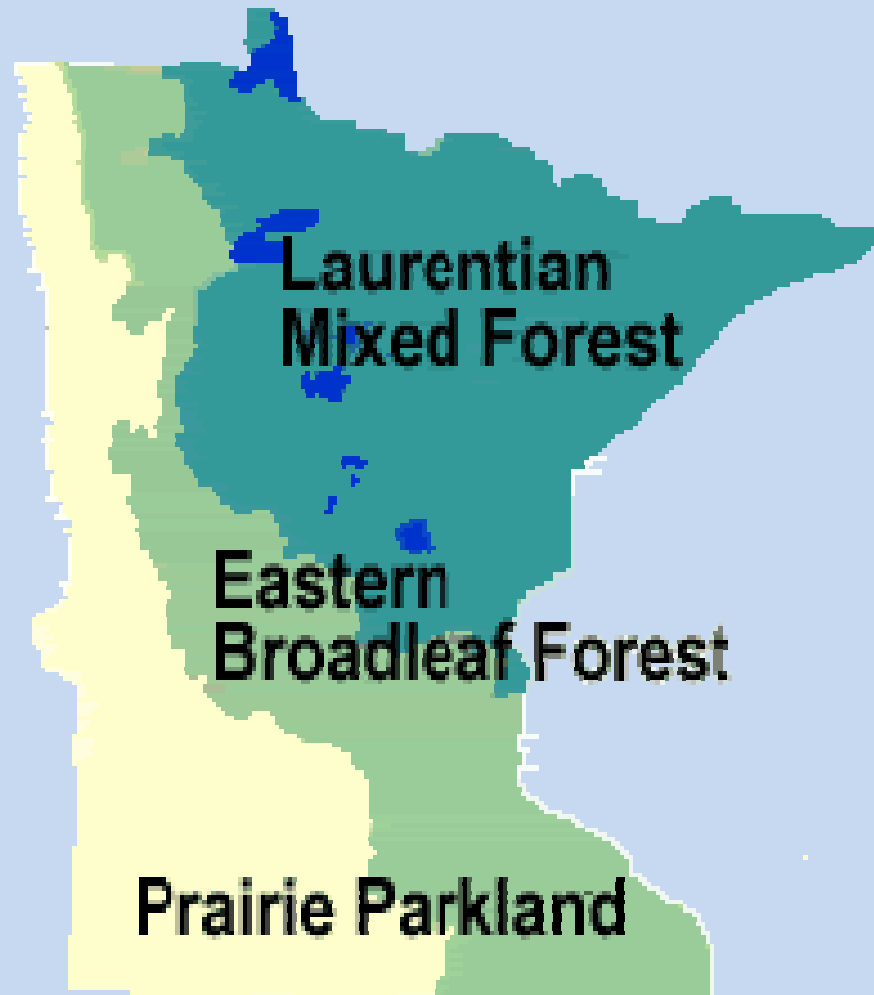
- low-growing perennial grass
- warm season
- stoloniferous
- dioecious
- drought and cold tolerant



Native of the Great Plains in North America

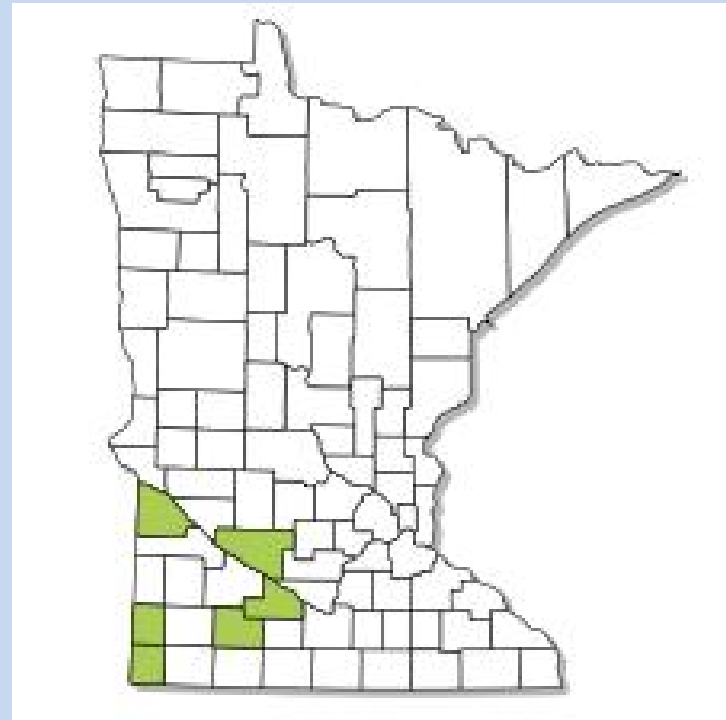


Southwestern Minnesota Prairie Lands



Distribution in Minnesota

- southwest corner of Minnesota
- only 37 known locations
- found on rock outcrops where tillage for agriculture is not possible



Sioux Quartzite Outcrops



Rare Plants of Minnesota

- Endangered – specie is threatened with extinction
- Threatened – specie is likely to become endangered in the near future
- Special Concern – specie is uncommon in Minnesota

Buffalograss is a special concern specie in Minnesota because it is restricted to very few sites

Conservation and Management

- Only about one third of the buffalograss populations in Minnesota are on land that is in public ownership and being managed for conservation
- Remaining sites will be evaluated and seed will be collected for seed banking to preserve genotypes on the sites that are most threatened
- Assistance from the Minnesota Department of Natural Resources biological survey of rare plants

Low-Maintenance Turfgrass Use

- developed for low-maintenance turfgrass use on dry sites by the University of Nebraska, Texas A&M, and others
- requires little water, fertilization, or mowing
- often used in drier western states
- seldom used in Minnesota (higher rainfall and humidity) but works well on dry sites



Low-maintenance turfgrass trials at the Minnesota Landscape Arboretum



Research and Demonstration plots established in 2014. Three turf type cultivars from the University of Nebraska are being evaluated.

2015 Comparison Trial

- native material collected in 2014 was vegetatively propagated and planted in plug trays
- Nebraska turf type was also planted in plug trays
- side-by-side comparison plots will be evaluated for turf quality, winter hardiness, vigor, spring green-up, etc.

Collecting Native Minnesota Buffalograss (September 2014)



Sioux Quartzite Demonstration Site at the Minnesota Landscape Arboretum

- Sioux Quartzite Rocks brought to the Arboretum
- Buffalograss and companion plants will be planted in a demonstration site at the Arboretum to show the public examples of this unique ecosystem

Companion Plants

- Blue grama grass (*Bouteloua gracilis*)
- Small-flowered flameflower (*Phemeranthus parviflorus*)
- Rock spikemoss (*Salaginella rupestris*)
- Bluets (*Hedyotis longifolia*)
- Brittle prickly pear cactus (*Opuntia fragilis*)



