



MINNESOTA COUNTY BIOLOGICAL SURVEY Department of Natural Resources Division of Ecological Resources 500 Lafayette Road - Box 25, St. Paul, MN 55155 Phone (651) 259-5100

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NATIVE PLANT COMMUNITIES AND RARE SPECIES **OF BROWN, REDWOOD, AND RENVILLE COUNTIES**

NATIVE PLANT COMMUNITIES

30 Miles

UPLAND PRAIRIE SYSTEM

UPs13 Southern Dry Prairie



UPs13d Dry Hill Prairie (Southern)

Dry to dry-mesic prairies on well-drained soils formed in glacial till on slopes and hilltops on stagnation moraines and steep slopes in large river valleys. Dominant grasses are little bluestem, side-oats grama, porcupine grass, and prairie dropseed, with much Indian grass, big bluestem, and Leiberg's panic grass in dry-mesic areas such as mid-slopes. Other common graminoids include plains muhly, junegrass, sun-loving sedge, and Scribner's panic grass. Leadplant, wolfberry, and prairie rose are common shrubs. Common forbs include rough blazing star, alumroot, silverleaf scurfpea, heart-leaved alexanders, prairie milk vetch, purple prairie clover, hoary puccoon, heath aster, prairie smoke, Flodman's thistle, and hairy golden aster.

dry-mesic sites; willows may be present on wet-mesic sites. Typical forbs on dry-mesic to mesic

sites include smooth aster, purple prairie clover, white sage, black-eyed Susan, white camass,

heath aster, heart-leaved alexanders, and stiff goldenrod; and on wetter sites, giant sunflower,

great blazing star, Maximilian's sunflower, northern plains blazing star, smooth rattlesnakero ot,

UPs23 Southern Mesic Prairie

UPs23a Mesic Prairie (Southern) Dry-mesic to wet-mesic prairies on level to undulating terrain on glacial till or outwash. Soils are moderately well-drained to moist loams with deep, dark, organic-enriched upper horizons. Dominated mostly by big bluestem, prairie dropseed, and Indian grass, in combination with porcupine grass and little bluestem on drier sites, and with prairie cordgrass and switchgrass on wetter sites. Other typical graminoids include Leiberg's panic grass, slender wheatgrass, Kalm's brome, and Mead's sedge. Shrubs are sparse but leadplant and prairie rose are usually present on

OPEN RICH PEATLAND SYSTEM

OPp93 Prairie Extremely Rich Fen

and Virginia mountain mint are common.

OPp93b Calcareous Fen (Southwestern) Open peatlands continuously saturated by upwelling, calcium-rich groundwater; typically at bases of steep slopes formed in calcareous till on stagnation moraines or the sides of the Glacial River Warren Valley. Deep deposits of peat, accumulated over thousands of years, often form large, elevated mounds or shelves. Wet, saturated muck on the tops of peat mounds is typically dominated by aquatic sedge, bog birch, and willows. Areas of greatest groundwater seepage have scattered groundwater pools and sparsely vegetated soils encrusted with marl deposits. These seepage zones contain a distinctive flora that includes hair-like beak rush, whorled nutrush, three-square bulrush, American grass-of-Parnassus, seaside arrowgrass, clustered muhly grass, marsh arrowgrass, Kalm's lobelia, bog aster, purple false foxglove, and lesser fringed gentian. Margins of seepage zones are dominated by other wetland species, including prairie sedge, hardstem

WET MEADOW/CARR SYSTEM

WMs83 Southern Seepage Meadow/Carr

bulrush, narrow reedgrass, and tussock sedge.

WMs83a Seepage Meadow/Carr Open wetlands on peat or mucky peat soils continuously saturated by upwelling, calcium-rich groundwater; typically at bases of steep slopes formed in calcareous till on rolling moraines or the sides of the Glacial River Warren Valley. Sometimes occurring adjacent to areas of Calcareous Fen (OPp93b). Shrub cover varies and includes bog birch, pussy willow, slender willow, and red-osier dogwood. Dominated by sedges and grasses, including tussock sedge, prairie sedge, hardstem bulrush, woolly sedge, bluejoint, and mat muhly grass. Common forbs include many species of wet meadows and some of calcareous fens, such as spotted Joe pye weed, willow herbs, flat-topped aster, bog aster, marsh bellflower, swamp thistle, giant sunflower, and prairie loosestrife.

WMp73 Prairie Wet Meadow/Carr

WMp73a Prairie Meadow/Carr Open wetlands on muck or shallow mucky peat soils in shallow basins or swales on rolling moraines and till plains. Commonly dominated by woolly sedge, Sartwell's sedge, narrow reedgrass, prairie cordgrass, and baltic rush. Shrub cover is generally sparse to patchy and includes red-osier dogwood, pussy willow, and slender willow. Common forbs include eastern panicled aster, swamp milkweed, rough bugleweed, spotted Joe pye weed, common mint, and cut-leaved bugleweed.

MARSH SYSTEM

MRp93 Prairie Bulrush-Arrowhead Marsh

MRp93a Bulrush Marsh (Prairie) Open emergent marshes along lake shores and river valleys that have standing water present during most of the year. Found on mineral or shallow organic soils on glacial till, outwash, or alluvium. Dominated primarily by hardstem bulrush, slender bulrush, or river bulrush. May include patches dominated by other species, including broad-leaved arrowhead and beaked sedge. Floating-leaved and submergent aquatic plants are usually common, including pondweeds, duckweeds, common coontail, and whorled water milfoil.

MRp93b Spikerush – Bur Reed Marsh (Prairie) Open emergent marshes in shallow wetland basins and occasionally along lake shores and river valleys that have standing water present during most of the year. Found on mineral or shallow organic soils on glacial till, outwash, alluvium, or bedrock outcrops. Dominated primarily by redstalked spikerush and giant bur reed. Other graminoids may be abundant, including tall manna

grass, woolly sedge, pointed broom sedge, Sartwell's sedge, and prairie cordgrass. Plant species diversity is variable: some sites have a diverse assemblage of wetland plant species, including water smartweed, giant water dock, dotted smartweed, bulb-bearing water hemlock, marsh skullcap, common mint, and cut-leaved bugleweed.



----- Major Rivers Lakes Streams and Ditches Railroads

Roads Interstate Highways — Federal and State Highways County and Municipal Roads

PLS Section Boundaries PLS Township Boundaries

County Boundaries

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WETLAND PRAIRIE SYSTEM

WPs54 Southern Wet Prairie



NATIVE PLANT COMMUNITY COMPLEXES

ROP_CX Rock Outcrop - Dry Prairie Complex A complex of Crystalline Bedrock Outcrop (ROs12a1) with one or more of the following community types: Dry Sand-Gravel Prairie (UPs13b), Pin Oak – Bur Oak Woodland (FDs37b) Basswood – Bur Oak – (Green Ash) Forest (MHs38b), Prairie Bulrush - Arrowhead Marsh (MRp93), and Mesic Prairie (UPs23a). Areas mapped as this complex occur on bedrock knobs where the individual native plant community types occur in a mosaic of patches that are too small to map individually.

PWL CX Prairie Wetland Complex A complex of Prairie Meadow/Carr (WMp73a), Wet Prairie (WPs54b), Mesic Prairie (UPs23a).

and Prairie Mixed Cattail Marsh (MRp83) where the individual plant community types occur in a mosaic of patches that are too small to map individually. Occurs in broad stream valleys within till plains and outwash plains in areas with poorly-drained soils in low areas and better-drained soils on rises.

RARE SPECIES AND ANIMAL AGGREGATIONS

ocations of rare plants, rare animals, and selected animal aggregations are maintained in the Natural Heritage Information System. The following rare species and animal aggregations (which include rare and common species) have been found in Brown, Redwood, and Renville counties. Mapped locations include both historical records and the results of field surveys conducted by the Minnesota County Biological Survey from 1987 to 2000. Many of these species are protected under the provisions of the Federal Endangered Species Act of 1973, as amended, or the Minnesota Endangered Species Statute (Minnesota Statutes, Section 84.0895), or both. The common and scientific names of plant species listed below have been updated to follow the Minnesota DNR's 2002 checklist of vascular plants and may differ slightly from names published in the Minnesota Statute.





Little Barley Lotus Milk Vetch Marsh Arrowgrass Mouse-ear Chickweed Mousetail Three-stamened Waterwort

Animals, federally or state-listed

Birds Bald Eagle Cerulean Warbler Common Moorhen Forster's Tern Henslow's Sparrow Loggerhead Shrike Marbled Godwit Trumpeter Swan

Wilson's Phalarope

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Virginia Forget-me-not

Honey Locust

Kentucky Coffee Tree

Reptiles Blanding's Turtle Five-lined Skink Fish Black Buffalo Blue Sucker

Lake Sturgeon Paddlefish

Animals, previously state-listed Mammals

Western Harvest Mouse Birds American Bittern Sandhill Crane

Reptiles Eastern Fox Snake Fish

Shovelnose Sturgeon

Colonial waterbird nesting site

Upland Sandpiper

Animal Aggregations

Rare Species Cluster

(Haliaeetus leucocephalus) (Dendroica cerulea) (Gallinula chloropus) (Sterna forsteri) (Ammodramus henslowii) (Lanius ludovicianus) (Limosa fedoa) (Cygnus buccinator) (Phalaropus tricolor)

(Eumeces fasciatus) (Ictiobus niger)

(Emydoidea blandingii)

(Gleditsia triacanthos)

(Gymnocladus dioica)

(Hordeum pusillum)

(Astragalus lotiflorus)

(Triglochin palustris)

(Cerastium vulgatum)

(Myosurus minimus)

(Elatine triandra)

(Myosotis verna)

(Cycleptus elongatus) (Acipenser fulvescens) (Polyodon spathula)

(Reithrodontomys megalotis)

(Botaurus lentiginosus) (Grus canadensis) (Bartramia longicauda)

(Elaphe vulpina)

(Scaphirhynchus platorynchus)

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